THE
WHITMAN
COMPANIES, INC.

Setting the Standard in Environmental Engineering & Management

SDMS Document
98447

FINAL REMEDIAL INVESTIGATION REPORT

FOR

ROCKAWAY BOROUGH WELL FIELD SITE
OPERABLE UNIT #3
FOR PROPERTY OF
KLOCKNER & KLOCKNER
ROCKAWAY BOROUGH, NEW JERSEY

VOLUME 3B
LABORATORY QA/QC DATA PACKAGE
10/6/98 - JOB #H941

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ON BEHALF OF KLOCKNER & KLOCKNER

IN ACCORDANCE WITH
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VOLUME 2

GC/MS Forms and Data (continued)

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VOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Calibration Time(s): 0615 0900

LAB FILE ID: RRF5: A6187 RRF20: A6189 RRF50: A6190
RRF100: A6191 RRF200: A6192

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
Chloromethane	0.185	0.199	0.234	0.212	0.210
Bromomethane	0.260	0.295	0.333	0.325	0.329
Vinyl Chloride	0.160	0.162	0.188	0.171	0.170
Chloroethane	0.143	0.145	0.161	0.148	0.148
Methylene Chloride	0.461	0.350	0.350	0.353	0.371
Acetone	0.142	0.089	0.074	0.067	0.067
Carbon Disulfide	0.884	0.797	0.872	0.899	0.926
Trichlorofluoromethane	0.576	0.583	0.647	0.592	0.606
1,1-Dichloroethene	0.390	0.314	0.300	0.298	0.307
1,1-Dichloroethane	0.648	0.605	0.626	0.632	0.671
trans-1,2-Dichloroethene	0.379	0.339	0.335	0.336	0.358
cis-1,2-Dichloroethene	0.416	0.341	0.362	0.364	0.360
Chloroform	0.804	0.705	0.745	0.752	0.752
1,2-Dichloroethane	0.434	0.400	0.417	0.421	0.412
2-Butanone	0.024	0.022	0.022	0.022	0.021
1,1,1-Trichloroethane	0.616	0.509	0.523	0.534	0.543
Carbon Tetrachloride	0.590	0.521	0.538	0.551	0.554
Bromodichloromethane	0.860	0.755	0.815	0.832	0.823
1,2-Dichloropropane	0.533	0.375	0.389	0.398	0.385
cis-1,3-Dichloropropene	0.581	0.515	0.539	0.552	0.555
Trichloroethene	0.588	0.422	0.428	0.427	0.426
Dibromochloromethane	0.892	0.857	0.981	0.963	0.990
1,1,2-Trichloroethane	0.368	0.393	0.425	0.405	0.407
Benzene	1.004	0.758	0.787	0.791	0.781
trans-1,3-Dichloropropene	0.528	0.490	0.551	0.534	0.557
2-Chloroethyl Vinyl Ether	0.077	0.086	0.095	0.102	0.117
Bromoform	0.567	0.653	0.748	0.734	0.760
4-Methyl-2-Pentanone	0.232	0.266	0.277	0.282	0.285
2-Hexanone	0.258	0.312	0.336	0.326	0.338
Tetrachloroethene	0.830	0.620	0.645	0.618	0.623
1,1,2,2-Tetrachloroethane	1.594	1.221	1.318	1.287	1.306
Toluene	1.119	0.992	1.070	1.028	1.050
Chlorobenzene	0.947	0.846	0.908	0.867	0.869
Ethylbenzene	0.351	0.328	0.342	0.326	0.312
Styrene	0.758	0.658	0.698	0.673	0.674
Xylene (Total)	0.439	0.386	0.411	0.394	0.391
Ethyl Ether	0.190	0.186	0.184	0.190	0.188
Acrolein	0.014	0.015	0.016	0.016	0.018
Freon TF	0.881	0.797	0.833	0.739	0.798

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Calibration Time(s): 0615 0900

LAB FILE ID: RRF5: A6187 RRF20: A6189 RRF50: A6190
RRF100: A6191 RRF200: A6192

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
Isopropanol					
Acetonitrile	0.012	0.015	0.014	0.013	0.016
TBA	0.010	0.011	0.011	0.010	0.012
Acrylonitrile	0.051	0.058	0.061	0.060	0.067
MTBE	0.600	0.599	0.608	0.607	0.641
Hexane					
DIPE	1.144	1.080	1.136	1.122	1.177
Ethyl Acetate					
Vinyl Acetate	0.512	0.463	0.479	0.474	0.495
Tetrahydrofuran					
Cyclohexane	0.448	0.392	0.412	0.369	0.383
Isobutanol					
Isopropyl Acetate	0.540	0.582	0.485	0.488	0.481
n-Heptane					
n-Butanol					
Propyl Acetate					
Butyl Acetate					
1,2-Dibromoethane	0.764	0.750	0.832	0.798	0.816
1,3-Dichlorobenzene	1.617	1.378	1.388	1.368	1.436
1,4-Dichlorobenzene	1.869	1.474	1.685	1.643	1.604
1,2-Dichlorobenzene	1.539	1.333	1.413	1.395	1.409
Naphthalene	1.271	1.093	1.151	1.151	1.177
Methylnaphthalene (total)					
Dimethylnaphthalene (total)					
Dichlorodifluoromethane	0.401	0.394	0.540	0.486	0.491
1,1-Dichloropropene	0.489	0.425	0.440	0.437	0.433
1,2,4-Trichlorobenzene	1.048	0.935	1.000	0.990	0.957
Hexachlorobutadiene	0.692	0.550	0.583	0.576	0.553
1,4-Dioxane	0.001	0.002	0.002	0.002	0.002
Methyl Acrylate					
1,1,1,2-Tetrachloroethane	0.545	0.518	0.567	0.546	0.541
1,2,3-Trichlorobenzene	0.845	0.784	0.828	0.812	0.809
1,2,3-Trichloropropane	0.910	0.840	0.877	0.863	0.870
1,2,4-Trimethylbenzene	1.889	1.545	1.599	1.569	1.537
1,2-Dibromo-3-chloropropane	0.185	0.206	0.216	0.222	0.219
1,3,5-Trimethylbenzene	1.802	1.499	1.532	1.499	1.453
1,3-Dichloropropane	0.603	0.596	0.651	0.615	0.607
2,2-Dichloropropane	0.482	0.442	0.451	0.453	0.455
2-Chlorotoluene	1.813	1.821	1.761	1.739	1.696

303874

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Calibration Time(s): 0615 0900

LAB FILE ID: RRF5: A6187 RRF20: A6189 RRF50: A6190
RRF100: A6191 RRF200: A6192

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
4-Chlorotoluene	2.061	1.755	1.837	1.816	1.865
Bromobenzene	1.121	0.964	1.016	0.993	1.002
Bromochloromethane	0.349	0.302	0.312	0.313	0.311
Dibromomethane	0.542	0.498	0.512	0.510	0.497
Isopropylbenzene	0.896	1.058	0.827	0.803	0.821
n-Butylbenzene	1.755	1.525	1.620	1.614	1.593
n-Propylbenzene	2.514	2.212	2.282	2.260	2.219
p-Isopropyltoluene	1.825	1.572	1.690	1.674	1.662
sec-Butylbenzene	2.292	1.879	2.004	2.001	2.040
tert-Butylbenzene	1.814	1.541	1.581	1.569	1.578
Allyl chloride	0.167	0.165	0.160	0.156	0.168
Benzyl chloride	1.034	1.067	1.099	1.122	1.149
Epichlorohydrin	0.020	0.022	0.020	0.021	0.022
Isoprene	0.282	0.261	0.274	0.256	0.269
Methyl methacrylate	0.188	0.181	0.182	0.183	0.184
n-Pentane	0.048	0.037	0.041	0.036	0.037
Allyl alcohol					
Amyl Acetate					
1,2-Dichloroethane-d4 (SUR)	0.420	0.411	0.373	0.362	0.352
Toluene-d8 (SUR)	1.240	1.147	1.101	1.002	1.011
Bromofluorobenzene (SUR)	1.290	1.128	1.065	1.005	1.005

303875

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Calibration Time(s): 0615 0900

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Chloromethane	AVRG	0.20802655	8.8**
Bromomethane	AVRG	0.30846024	10.1*
Vinyl Chloride	AVRG	0.17006524	6.4*
Chloroethane	AVRG	0.14900082	4.6*
Methylene Chloride	AVRG	0.37697437	12.6*
Acetone	AVRG	0.08799650	35.8*
Carbon Disulfide	AVRG	0.87557588	5.5*
Trichlorofluoromethane	AVRG	0.60086496	4.7*
1,1-Dichloroethene	AVRG	0.32183378	12.1*
1,1-Dichloroethane	AVRG	0.63670698	3.9**
trans-1,2-Dichloroethene	AVRG	0.34939484	5.4*
cis-1,2-Dichloroethene	AVRG	0.36869922	7.7*
Chloroform	AVRG	0.75166295	4.6*
1,2-Dichloroethane	AVRG	0.41698787	3.0*
2-Butanone	AVRG	0.02219527	5.6*
1,1,1-Trichloroethane	AVRG	0.54480389	7.6*
Carbon Tetrachloride	AVRG	0.55075634	4.6*
Bromodichloromethane	AVRG	0.81711827	4.7*
1,2-Dichloropropane	AVRG	0.41611022	15.8*
cis-1,3-Dichloropropene	AVRG	0.54863871	4.4*
Trichloroethene	AVRG	0.45837301	15.8*
Dibromochloromethane	AVRG	0.93661812	6.3*
1,1,2-Trichloroethane	AVRG	0.39944490	5.3*
Benzene	AVRG	0.82436194	12.3*
trans-1,3-Dichloropropene	AVRG	0.53219965	5.0*
2-Chloroethyl Vinyl Ether	AVRG	0.09548352	15.8*
Bromoform	AVRG	0.69255803	11.8**
4-Methyl-2-Pentanone	AVRG	0.26851086	8.1*
2-Hexanone	AVRG	0.31400641	10.4*
Tetrachloroethene	AVRG	0.66731859	13.8*
1,1,2,2-Tetrachloroethane	AVRG	1.34542184	10.7**
Toluene	AVRG	1.05175917	4.5*
Chlorobenzene	AVRG	0.88746955	4.5**
Ethylbenzene	AVRG	0.33205082	4.5*
Styrene	AVRG	0.69224071	5.7*
Xylene (Total)	AVRG	0.40422894	5.4*
Ethyl Ether	AVRG	0.18760164	1.3*
Acrolein	AVRG	0.01593909	9.7*
Freon TF	AVRG	0.80936418	6.4*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

303876

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Calibration Time(s): 0615 0900

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Isopropanol	AVRG		
Acetonitrile	AVRG	0.01403836	10.1*
TBA	AVRG	0.01093036	7.4*
Acrylonitrile	AVRG	0.05945443	9.6*
MTBE	AVRG	0.61097142	2.8*
Hexane	AVRG		
DIPE	AVRG	1.13197200	3.1*
Ethyl Acetate	AVRG		
Vinyl Acetate	AVRG	0.48450329	4.0*
Tetrahydrofuran	AVRG		
Cyclohexane	AVRG	0.40066643	7.7*
Isobutanol	AVRG		
Isopropyl Acetate	AVRG	0.51514056	8.6*
n-Heptane	AVRG		
n-Butanol	AVRG		
Propyl Acetate	AVRG		
Butyl Acetate	AVRG		
1,2-Dibromoethane	AVRG	0.79191281	4.4*
1,3-Dichlorobenzene	AVRG	1.43728273	7.2*
1,4-Dichlorobenzene	AVRG	1.65502673	8.7*
1,2-Dichlorobenzene	AVRG	1.41778885	5.3*
Naphthalene	AVRG	1.16873964	5.6*
Methylnaphthalene (total)	AVRG		
Dimethylnaphthalene (total)	AVRG		
Dichlorodifluoromethane	AVRG	0.46217805	13.6*
1,1-Dichloropropene	AVRG	0.44479346	5.7*
1,2,4-Trichlorobenzene	AVRG	0.98620818	4.4*
Hexachlorobutadiene	AVRG	0.59069752	9.8*
1,4-Dioxane	AVRG	0.00154265	12.3*
Methyl Acrylate	AVRG		
1,1,1,2-Tetrachloroethane	AVRG	0.54350976	3.2*
1,2,3-Trichlorobenzene	AVRG	0.81565383	2.8*
1,2,3-Trichloropropane	AVRG	0.87208343	2.9*
1,2,4-Trimethylbenzene	AVRG	1.62767559	9.1*
1,2-Dibromo-3-chloropropane	AVRG	0.20978702	7.1*
1,3,5-Trimethylbenzene	AVRG	1.55703510	9.0*
1,3-Dichloropropane	AVRG	0.61458930	3.5*
2,2-Dichloropropane	AVRG	0.45668744	3.3*
2-Chlorotoluene	AVRG	1.76596267	3.0*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

303877

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Calibration Time(s): 0615 0900

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
4-Chlorotoluene	AVRG	1.86701363	6.2*
Bromobenzene	AVRG	1.01939799	5.9*
Bromochloromethane	AVRG	0.31739706	5.8*
Dibromomethane	AVRG	0.51192801	3.5*
Isopropylbenzene	AVRG	0.88099726	11.9*
n-Butylbenzene	AVRG	1.62166958	5.2*
n-Propylbenzene	AVRG	2.29738126	5.4*
p-Isopropyltoluene	AVRG	1.68453155	5.4*
sec-Butylbenzene	AVRG	2.04323876	7.4*
tert-Butylbenzene	AVRG	1.61672995	6.9*
Allyl chloride	AVRG	0.16348621	3.2*
Benzyl chloride	AVRG	1.09441719	4.1*
Epichlorohydrin	AVRG	0.02103973	3.9*
Isoprene	AVRG	0.26838289	3.9*
Methyl methacrylate	AVRG	0.18374259	1.5*
n-Pentane	AVRG	0.03984936	12.3*
Allyl alcohol	AVRG		
Amyl Acetate	AVRG		
1,2-Dichloroethane-d4 (SUR)	AVRG	0.38362861	7.8*
Toluene-d8 (SUR)	AVRG	1.10023387	9.0*
Bromofluorobenzene (SUR)	AVRG	1.09853548	10.8*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

303878

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6187.d
Report Date: 07-Oct-98 09:43:02

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6187.d
Lab Smp Id: ASTD005
Inj Date : 07-OCT-98 06:15:00
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : ASTD005
Misc Info :
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/new8260HIGH.m
Meth Date : 07-Oct-98 09:40:46 dave Quant Type: ISTD
Cal Date : 07-OCT-98 06:15:00 Cal File: a6187.d
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.691	3.691	(0.352)	179495	5.0	4.3(a)
1 Chloromethane	50	4.060	4.060	(0.387)	82841	5.0	4.4(a)
4 Vinyl Chloride	62	4.281	4.281	(0.408)	71697	5.0	4.7(a)
3 Bromomethane	94	4.917	4.917	(0.469)	116449	5.0	4.2(a)
5 Chloroethane	64	5.079	5.079	(0.484)	64114	5.0	4.8(a)
9 Trichlorofluoromethane	101	5.552	5.552	(0.529)	257982	5.0	4.8(a)
121 n-Pentane	72	5.670	5.670	(0.541)	21510	5.0	6.0
46 Ethyl Ether	59	5.995	5.995	(0.572)	85079	5.0	5.1
119 Isoprene	67	6.054	6.054	(0.577)	126381	5.0	5.2
47 Acrolein	56	6.202	6.202	(0.591)	127745	100	89(a)
48 Freon TF	101	6.394	6.394	(0.610)	394459	5.0	5.4
10 1,1-Dichloroethene	96	6.394	6.394	(0.610)	69972	2.0	2.4
7 Acetone	43	6.438	6.438	(0.614)	63649	5.0	8.1
8 Carbon Disulfide	76	6.808	6.808	(0.649)	396168	5.0	5.0
116 Allyl chloride	76	6.941	6.941	(0.662)	74857	5.0	5.1(H)
50 Acetonitrile	41	6.837	6.837	(0.652)	108659	100	86(a)

303879

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6187.d
Report Date: 07-Oct-98 09:43:02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 Methylene Chloride	84	7.118	7.118	(0.679)	123854	3.0	3.7
	51 TBA	59	7.236	7.236	(0.690)	88877	100	91(a)
	52 Acrylonitrile	53	7.458	7.458	(0.711)	229483	50	43(a)
	53 MTBE	73	7.546	7.546	(0.720)	268860	5.0	4.9(a)
	12 trans-1,2-Dichloroethene	96	7.561	7.561	(0.721)	169705	5.0	5.4
	11 1,1-Dichloroethane	63	8.167	8.167	(0.779)	290462	5.0	5.1
	57 Vinyl Acetate	43	8.211	8.211	(0.783)	229415	5.0	5.3
	55 DIPE	45	8.226	8.226	(0.784)	512552	5.0	5.0
	18 2-Butanone	72	8.950	8.950	(0.853)	10892	5.0	5.5(M)
	13 cis-1,2-Dichloroethene	96	8.979	8.979	(0.856)	186565	5.0	5.6
	104 2,2-Dichloropropane	77	8.994	8.994	(0.858)	216019	5.0	5.3
	108 Bromochloromethane	128	9.304	9.304	(0.887)	156405	5.0	5.5
	15 Chloroform	83	9.378	9.378	(0.894)	359940	5.0	5.3
	20 1,1,1-Trichloroethane	97	9.689	9.689	(0.924)	275707	5.0	5.6
	59 Cyclohexane	56	9.807	9.807	(0.935)	200755	5.0	5.6
	92 1,1-Dichloropropene	75	9.896	9.895	(0.944)	219002	5.0	5.5
	21 Carbon Tetrachloride	117	9.925	9.925	(0.946)	105663	2.0	2.1
$	16 1,2-Dichloroethane-d4 (SUR)	65	10.043	10.043	(0.958)	188033	5.0	5.5
	63 n-Butanol	56	9.807	9.807	(0.935)	200755	5.0	(a)
	61 Isopropyl Acetate	43	10.102	10.102	(0.963)	484110	10	10
	17 1,2-Dichloroethane	62	10.147	10.147	(0.968)	77842	2.0	2.1
	28 Benzene	78	10.176	10.176	(0.970)	89929	1.0	1.2
*	19 Fluorobenzene	96	10.486	10.486	(1.000)	4479163	50	
	25 Trichloroethene	95	10.944	10.944	(1.044)	52671	1.0	1.3
	23 1,2-Dichloropropane	63	11.225	11.225	(1.070)	47731	1.0	1.3
	120 Methyl methacrylate	69	11.269	11.269	(1.075)	84247	5.0	5.1
	109 Dibromomethane	93	11.373	11.373	(1.085)	242864	5.0	5.3
	95 1,4-Dioxane	88	11.358	11.358	(1.083)	109136	1000	790(a)
	22 Bromodichloromethane	83	11.521	11.521	(1.099)	77018	1.0	1.0
	30 2-Chloroethyl Vinyl Ether	63	11.816	11.816	(1.127)	34713	5.0	4.0(aH)
	118 Epichlorohydrin	57	11.934	11.934	(1.138)	179546	100	95(a)
	24 cis-1,3-Dichloropropene	75	12.052	12.052	(1.149)	260455	5.0	5.3
	33 4-Methyl-2-Pentanone	43	12.185	12.185	(1.162)	103854	5.0	4.3(a)
$	37 Toluene-d8 (SUR)	98	12.422	12.422	(0.881)	498478	5.0	6.1
	38 Toluene	91	12.496	12.496	(0.886)	449775	5.0	5.8
	29 trans-1,3-Dichloropropene	75	12.688	12.688	(0.899)	212361	5.0	5.4
	27 1,1,2-Trichloroethane	83	12.924	12.924	(0.916)	88683	3.0	3.0
	102 1,3-Dichloropropane	76	13.131	13.131	(0.931)	242407	5.0	5.3
	35 Tetrachloroethene	166	13.175	13.175	(0.934)	66787	1.0	1.3
	34 2-Hexanone	43	12.185	12.185	(0.864)	103854	5.0	4.5(a)
	26 Dibromochloromethane	129	13.426	13.426	(0.952)	358578	5.0	5.2
	66 1,2-Dibromoethane	107	13.604	13.604	(0.964)	307321	5.0	5.3
*	32 Chlorobenzene-d5	117	14.106	14.106	(1.000)	4020588	50	
	39 Chlorobenzene	112	14.150	14.150	(1.003)	380694	5.0	5.8
	40 Ethylbenzene	106	14.224	14.224	(1.008)	112849	4.0	4.6
	43 m+p-Xylene	106	14.342	14.342	(1.017)	358853	10	12(H)
	97 1,1,1,2-Tetrachloroethane	131	14.209	14.209	(1.007)	219288	5.0	5.5

303880

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6187.d
Report Date: 07-Oct-98 09:43:02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	44 o-Xylene	106	14.800	14.800	(1.049)	170972	5.0	5.8
	42 Styrene	104	14.815	14.815	(1.050)	304730	5.0	6.0
	31 Bromoform	173	15.081	15.081	(1.069)	182469	4.0	3.6(a)
	110 Isopropylbenzene	105	15.184	15.184	(1.076)	360154	5.0	5.5
$	41 Bromofluorobenzene (SUR)	174	15.391	15.391	(0.924)	286738	5.0	5.9
	36 1,1,2,2-Tetrachloroethane	83	15.480	15.480	(0.929)	70869	1.0	1.2
	99 1,2,3-Trichloropropane	75	15.554	15.554	(0.933)	202222	5.0	5.2
	107 Bromobenzene	156	15.613	15.613	(0.937)	249076	5.0	5.5
	112 n-Propylbenzene	91	15.628	15.628	(0.938)	558716	5.0	5.5
	105 2-Chlorotoluene	91	15.790	15.790	(0.948)	403008	5.0	5.1
	102 1,3,5-Trimethylbenzene	105	15.790	15.790	(0.948)	400423	5.0	5.8
	106 4-Chlorotoluene	91	15.879	15.879	(0.953)	458129	5.0	5.5
	115 tert-Butylbenzene	119	16.174	16.174	(0.971)	403230	5.0	5.6
	100 1,2,4-Trimethylbenzene	105	16.219	16.219	(0.973)	419767	5.0	5.8
	114 sec-Butylbenzene	105	16.411	16.411	(0.985)	509259	5.0	5.6
	113 p-Isopropyltoluene	119	16.529	16.529	(0.992)	405569	5.0	5.4
	67 1,3-Dichlorobenzene	146	16.603	16.603	(0.996)	359393	5.0	5.6
*	91 1,4-Dichlorobenzene-d4	152	16.662	16.662	(1.000)	2222372	50	
	68 1,4-Dichlorobenzene	146	16.691	16.691	(1.002)	415399	5.0	5.6
	117 Benzyl chloride	91	16.809	16.809	(1.009)	229814	5.0	4.7(a)
	111 n-Butylbenzene	91	16.987	16.987	(1.020)	390125	5.0	5.4
	69 1,2-Dichlorobenzene	146	17.134	17.134	(1.028)	342107	5.0	5.4
	101 1,2-Dibromo-3-chloropropane	75	17.991	17.991	(1.080)	41216	5.0	4.4(a)
	93 1,2,4-Trichlorobenzene	180	18.996	18.996	(1.140)	233020	5.0	5.3
	94 Hexachlorobutadiene	225	19.144	19.144	(1.149)	153707	5.0	5.8
	70 Naphthalene	128	19.351	19.351	(1.161)	282485	5.0	5.4
	98 1,2,3-Trichlorobenzene	180	19.661	19.661	(1.180)	187785	5.0	5.2
M	14 1,2-Dichloroethene (total)	100				356270	10	11
M	45 Xylene (Total)	100				529825	15	18

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

303881

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6187.d
Date : 07-OCT-1998 06:15
Client ID:
Sample Info: ASTD005

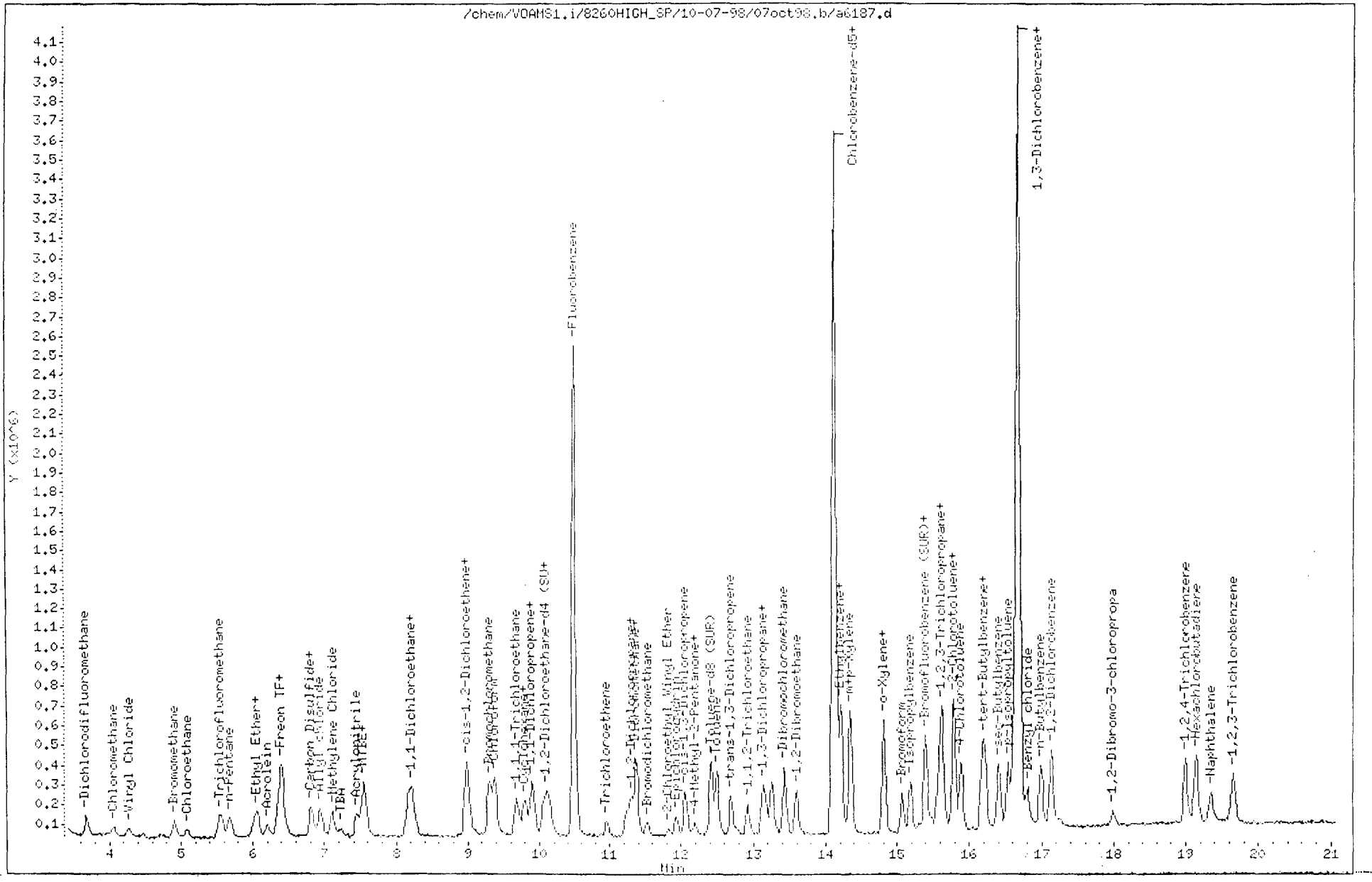
Instrument: VOAMS1.i

Operator: VOAMS 3

303882

Column phase: DB624

Column diameter: 0.53



345

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6189.d
Report Date: 07-Oct-98 09:43:53

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6189.d
Lab Smp Id: ASTD020
Inj Date : 07-OCT-98 07:32:00
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : ASTD020
Misc Info :
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/new8260HIGH.m
Meth Date : 07-Oct-98 09:40:46 dave Quant Type: ISTD
Cal Date : 07-OCT-98 07:32:00 Cal File: a6189.d
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.748	3.748	(0.356)	722079	20	17
1 Chloromethane	50	4.133	4.133	(0.392)	364471	20	19(H)
4 Vinyl Chloride	62	4.354	4.354	(0.413)	296535	20	19
3 Bromomethane	94	4.960	4.960	(0.471)	540864	20	19
5 Chloroethane	64	5.152	5.152	(0.489)	266799	20	20
9 Trichlorofluoromethane	101	5.625	5.625	(0.534)	1069323	20	19
121 n-Pentane	72	5.743	5.743	(0.545)	67838	20	18
46 Ethyl Ether	59	6.083	6.083	(0.578)	342073	20	20(H)
119 Isoprene	67	6.127	6.127	(0.582)	478644	20	19
47 Acrolein	56	6.275	6.275	(0.596)	278756	200	190
48 Freon TF	101	6.452	6.452	(0.613)	1461584	20	20
10 1,1-Dichloroethene	96	6.481	6.481	(0.616)	575748	20	20
7 Acetone	43	6.511	6.511	(0.618)	163136	20	20
8 Carbon Disulfide	76	6.866	6.866	(0.652)	1461541	20	18
116 Allyl chloride	76	6.999	6.999	(0.665)	303462	20	20(H)
50 Acetonitrile	41	6.895	6.895	(0.655)	555953	400	430

303883

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6189.d
Report Date: 07-Oct-98 09:43:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 Methylene Chloride	84	7.176	7.176	(0.681)	641247	20	18
	51 TBA	59	7.279	7.279	(0.691)	410541	400	410
	52 Acrylonitrile	53	7.501	7.501	(0.712)	531202	100	97
	53 MTBE	73	7.590	7.590	(0.721)	1099026	20	20
	12 trans-1,2-Dichloroethene	96	7.619	7.619	(0.724)	621184	20	19
	11 1,1-Dichloroethane	63	8.225	8.225	(0.781)	1110710	20	19
	57 Vinyl Acetate	43	8.269	8.269	(0.785)	849387	20	19
	55 DIPE	45	8.284	8.284	(0.787)	1981974	20	19
	18 2-Butanone	72	9.008	9.008	(0.855)	40772	20	20
	13 cis-1,2-Dichloroethene	96	9.023	9.023	(0.857)	625182	20	18
	104 2,2-Dichloropropane	77	9.052	9.052	(0.860)	810514	20	19
	108 Bromochloromethane	128	9.362	9.362	(0.889)	554127	20	19
	15 Chloroform	83	9.421	9.421	(0.895)	1293883	20	19
	20 1,1,1-Trichloroethane	97	9.732	9.732	(0.924)	934621	20	19
	59 Cyclohexane	56	9.850	9.850	(0.935)	718282	20	20
	92 1,1-Dichloropropene	75	9.938	9.938	(0.944)	778974	20	19
	21 Carbon Tetrachloride	117	9.968	9.968	(0.947)	956134	20	19
$	16 1,2-Dichloroethane-d4 (SUR)	65	10.101	10.101	(0.959)	753708	20	21
	61 Isopropyl Acetate	43	10.145	10.145	(0.964)	2124815	40	45
	17 1,2-Dichloroethane	62	10.190	10.190	(0.968)	734325	20	19
	28 Benzene	78	10.219	10.219	(0.971)	1391556	20	18
*	19 Fluorobenzene	96	10.529	10.529	(1.000)	4586163	50	
	25 Trichloroethene	95	11.002	11.002	(1.045)	774943	20	18
	23 1,2-Dichloropropane	63	11.268	11.268	(1.070)	688411	20	18
	120 Methyl methacrylate	69	11.298	11.298	(1.073)	331611	20	20
	109 Dibromomethane	93	11.416	11.416	(1.084)	914382	20	19
	95 1,4-Dioxane	88	11.386	11.386	(1.081)	290075	2000	2000
	22 Bromodichloromethane	83	11.564	11.564	(1.098)	1385268	20	18
	30 2-Chloroethyl Vinyl Ether	63	11.859	11.859	(1.126)	158299	20	18(H)
	118 Epichlorohydrin	57	11.962	11.962	(1.136)	810522	400	420
	24 cis-1,3-Dichloropropene	75	12.095	12.095	(1.149)	944867	20	19
	33 4-Methyl-2-Pentanone	43	12.214	12.214	(1.160)	488754	20	20
$	37 Toluene-d8 (SUR)	98	12.450	12.450	(0.881)	1792950	20	22
	38 Toluene	91	12.539	12.539	(0.887)	1550318	20	20
	29 trans-1,3-Dichloropropene	75	12.716	12.716	(0.900)	765962	20	20
	27 1,1,2-Trichloroethane	83	12.952	12.952	(0.916)	613876	20	21
	103 1,3-Dichloropropane	76	13.159	13.159	(0.931)	932745	20	21
	35 Tetrachloroethene	166	13.203	13.203	(0.934)	970001	20	20
	34 2-Hexanone	43	12.214	12.214	(0.864)	488754	20	22
	26 Dibromochloromethane	129	13.455	13.455	(0.952)	1340739	20	20
	66 1,2-Dibromoethane	107	13.617	13.617	(0.963)	1172326	20	21
*	32 Chlorobenzene-d5	117	14.134	14.134	(1.000)	3908910	50	
	39 Chlorobenzene	112	14.179	14.179	(1.003)	1323633	20	21
	40 Ethylbenzene	106	14.252	14.252	(1.008)	513666	20	21
	43 m+p-Xylene	106	14.371	14.371	(1.017)	1207418	40	41(H)
	97 1,1,1,2-Tetrachloroethane	131	14.238	14.238	(1.007)	810480	20	21
	44 o-Xylene	106	14.829	14.829	(1.049)	601362	20	21

303884

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6189.d
Report Date: 07-Oct-98 09:43:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	42 Styrene	104	14.829	14.829	(1.049)	1029336	20	21
	31 Bromoform	173	15.094	15.094	(1.068)	1021480	20	21
	110 Isopropylbenzene	105	15.213	15.213	(1.076)	1654880	20	26
$	41 Bromofluorobenzene (SUR)	174	15.419	15.419	(0.924)	1007173	20	20
	36 1,1,2,2-Tetrachloroethane	83	15.493	15.493	(0.928)	1090641	20	18
	99 1,2,3-Trichloropropane	75	15.567	15.567	(0.933)	750072	20	19
	107 Bromobenzene	156	15.626	15.626	(0.936)	860808	20	19
	112 n-Propylbenzene	91	15.656	15.656	(0.938)	1976076	20	19
	105 2-Chlorotoluene	91	15.804	15.804	(0.947)	1626369	20	21
	102 1,3,5-Trimethylbenzene	105	15.804	15.804	(0.947)	1339394	20	19
	106 4-Chlorotoluene	91	15.907	15.907	(0.953)	1567539	20	19
	115 tert-Butylbenzene	119	16.188	16.188	(0.970)	1376381	20	19
	100 1,2,4-Trimethylbenzene	105	16.232	16.232	(0.973)	1379971	20	19
	114 sec-Butylbenzene	105	16.424	16.424	(0.984)	1678478	20	18
	113 p-Isopropyltoluene	119	16.557	16.557	(0.992)	1404306	20	19
	67 1,3-Dichlorobenzene	146	16.616	16.616	(0.996)	1230978	20	19
*	91 1,4-Dichlorobenzene-d4	152	16.690	16.690	(1.000)	2233108	50	
	68 1,4-Dichlorobenzene	146	16.705	16.705	(1.001)	1316854	20	18
	117 Benzyl chloride	91	16.823	16.823	(1.008)	953259	20	20
	111 n-Butylbenzene	91	17.015	17.015	(1.019)	1362204	20	19
	69 1,2-Dichlorobenzene	146	17.148	17.148	(1.027)	1190416	20	19
	101 1,2-Dibromo-3-chloropropane	75	18.005	18.005	(1.079)	184093	20	20
	93 1,2,4-Trichlorobenzene	180	19.009	19.009	(1.139)	835046	20	19
	94 Hexachlorobutadiene	225	19.157	19.157	(1.148)	491251	20	19
	70 Naphthalene	128	19.364	19.364	(1.160)	976431	20	19
	98 1,2,3-Trichlorobenzene	180	19.660	19.660	(1.178)	700804	20	19
M	14 1,2-Dichloroethene (total)	100				1246366	40	38
M	45 Xylene (Total)	100				1808720	60	62

QC Flag Legend

H - Operator selected an alternate compound hit.

303885

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6189.d
Date : 07-OCT-1998 07:32
Client ID:
Sample Info: ASTD020

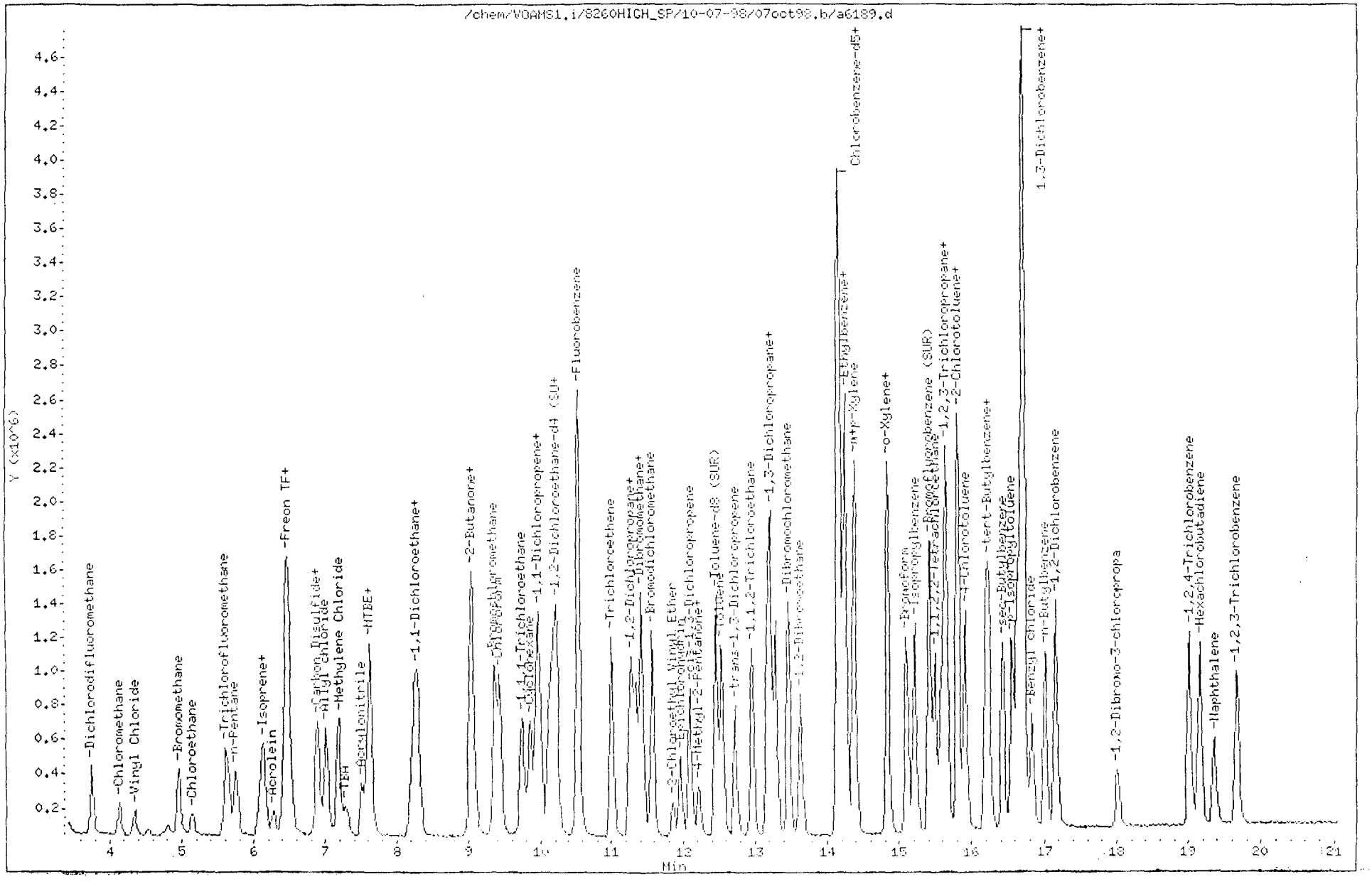
Instrument: VOAMS1.i

Operator: VOAMS 3

303886

Column phase: DB624

Column diameter: 0.53



Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6190.d
Report Date: 07-Oct-98 09:44:37

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6190.d
Lab Smp Id: ASTD050
Inj Date : 07-OCT-98 08:01:00
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : ASTD050
Misc Info :
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/new8260HIGH.m
Meth Date : 07-Oct-98 09:40:46 dave Quant Type: ISTD
Cal Date : 07-OCT-98 08:01:00 Cal File: a6190.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.748	3.748	(0.356)	2352364	50	58
1 Chloromethane	50	4.132	4.132	(0.392)	1021436	50	56(H)
4 Vinyl Chloride	62	4.354	4.354	(0.413)	817727	50	55
3 Bromomethane	94	4.974	4.974	(0.472)	1452402	50	54
5 Chloroethane	64	5.166	5.166	(0.491)	700929	50	54
9 Trichlorofluoromethane	101	5.624	5.624	(0.534)	2820900	50	54
121 n-Pentane	72	5.772	5.772	(0.548)	178241	50	51
46 Ethyl Ether	59	6.082	6.082	(0.578)	802740	50	49(H)
119 Isoprene	67	6.141	6.141	(0.583)	1193346	50	51
47 Acrolein	56	6.274	6.274	(0.596)	409434	300	290
48 Freon TF	101	6.466	6.466	(0.614)	3629695	50	51
10 1,1-Dichloroethene	96	6.481	6.481	(0.616)	1305223	50	46
7 Acetone	43	6.496	6.496	(0.617)	324787	50	42
8 Carbon Disulfide	76	6.880	6.880	(0.653)	3798044	50	50
116 Allyl chloride	76	7.013	7.013	(0.666)	698201	50	49(H)
50 Acetonitrile	41	6.895	6.895	(0.655)	1243238	1000	1000

303887

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6190.d
Report Date: 07-Oct-98 09:44:37

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 Methylene Chloride	84	7.190	7.190	(0.683)	1527217	50	46
	51 TBA	59	7.294	7.294	(0.693)	954612	1000	1000
	52 Acrylonitrile	53	7.515	7.515	(0.714)	796339	150	150
	53 MTBE	73	7.604	7.604	(0.722)	2647906	50	50
	12 trans-1,2-Dichloroethene	96	7.619	7.619	(0.724)	1460048	50	48
	11 1,1-Dichloroethane	63	8.224	8.224	(0.781)	2727651	50	49
	57 Vinyl Acetate	43	8.283	8.283	(0.787)	2086715	50	49
	55 DIPE	45	8.283	8.283	(0.787)	4949568	50	50
	18 2-Butanone	72	9.007	9.007	(0.855)	94447	50	49
	13 cis-1,2-Dichloroethene	96	9.037	9.037	(0.858)	1579450	50	49
	104 2,2-Dichloropropane	77	9.052	9.052	(0.860)	1964248	50	49
	108 Bromochloromethane	128	9.362	9.362	(0.889)	1357380	50	49
	15 Chloroform	83	9.436	9.436	(0.896)	3247364	50	50
	96 Methyl Acrylate	55	9.849	9.849	(0.935)	651417	50	(a)
	20 1,1,1-Trichloroethane	97	9.746	9.746	(0.926)	2278097	50	48
	59 Cyclohexane	56	9.849	9.849	(0.935)	1794702	50	51
	92 1,1-Dichloropropene	75	9.938	9.938	(0.944)	1915718	50	49
	21 Carbon Tetrachloride	117	9.982	9.982	(0.948)	2343378	50	49
$	16 1,2-Dichloroethane-d4 (SUR)	65	10.101	10.101	(0.959)	1627220	50	49
	63 n-Butanol	56	9.849	9.849	(0.935)	1794702	3000	(a)
	61 Isopropyl Acetate	43	10.145	10.145	(0.964)	4224204	100	94
	17 1,2-Dichloroethane	62	10.189	10.189	(0.968)	1816916	50	50
	28 Benzene	78	10.219	10.219	(0.971)	3428998	50	48
*	19 Fluorobenzene	96	10.529	10.529	(1.000)	4357358	50	
	25 Trichloroethene	95	11.002	11.002	(1.045)	1866045	50	47
	23 1,2-Dichloropropane	63	11.268	11.268	(1.070)	1695722	50	47
	120 Methyl methacrylate	69	11.297	11.297	(1.073)	794700	50	50
	109 Dibromomethane	93	11.415	11.415	(1.084)	2228906	50	50
	95 1,4-Dioxane	88	11.401	11.401	(1.083)	426608	3000	3200
	22 Bromodichloromethane	83	11.563	11.563	(1.098)	3552529	50	50
	30 2-Chloroethyl Vinyl Ether	63	11.859	11.859	(1.126)	413056	50	50(H)
	118 Epichlorohydrin	57	11.962	11.962	(1.136)	1788594	1000	980
	24 cis-1,3-Dichloropropene	75	12.095	12.095	(1.149)	2350679	50	49
	33 4-Methyl-2-Pentanone	43	12.213	12.213	(1.160)	1207014	50	52
$	37 Toluene-d8 (SUR)	98	12.450	12.450	(0.881)	3963485	50	54
	38 Toluene	91	12.538	12.538	(0.887)	3850008	50	55
	29 trans-1,3-Dichloropropene	75	12.715	12.715	(0.900)	1984031	50	57
	27 1,1,2-Trichloroethane	83	12.952	12.952	(0.916)	1531033	50	58
	103 1,3-Dichloropropane	76	13.159	13.159	(0.931)	2344434	50	58
	35 Tetrachloroethene	166	13.203	13.203	(0.934)	2322482	50	52
	34 2-Hexanone	43	12.213	12.213	(0.864)	1208619	50	59
	26 Dibromochloromethane	129	13.454	13.454	(0.952)	3530608	50	57
	66 1,2-Dibromoethane	107	13.631	13.631	(0.964)	2994817	50	57
*	32 Chlorobenzene-d5	117	14.134	14.134	(1.000)	3599272	50	
	39 Chlorobenzene	112	14.178	14.178	(1.003)	3266383	50	56
	40 Ethylbenzene	106	14.252	14.252	(1.008)	1230978	50	56
	43 m+p-Xylene	106	14.370	14.370	(1.017)	2957121	100	110(H)

303888

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6190.d
Report Date: 07-Oct-98 09:44:37

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	97 1,1,1,2-Tetrachloroethane	131	14.237	14.237	(1.007)	2041151	50	57
	44 o-Xylene	106	14.828	14.828	(1.049)	1479346	50	56
	42 Styrene	104	14.828	14.828	(1.049)	2510597	50	55
	31 Bromoform	173	15.094	15.094	(1.068)	2692209	50	59
	110 Isopropylbenzene	105	15.212	15.212	(1.076)	2976258	50	51
$	41 Bromofluorobenzene (SUR)	174	15.419	15.419	(0.925)	2235726	50	48
	36 1,1,2,2-Tetrachloroethane	83	15.493	15.493	(0.929)	2768073	50	49
	99 1,2,3-Trichloropropane	75	15.581	15.581	(0.934)	1842123	50	50
	107 Bromobenzene	156	15.626	15.626	(0.937)	2134567	50	50
	112 n-Propylbenzene	91	15.655	15.655	(0.939)	4791241	50	50
	105 2-Chlorotoluene	91	15.803	15.803	(0.948)	3697367	50	50
	102 1,3,5-Trimethylbenzene	105	15.803	15.803	(0.948)	3216088	50	49
	106 4-Chlorotoluene	91	15.906	15.906	(0.954)	3858194	50	49
	115 tert-Butylbenzene	119	16.187	16.187	(0.971)	3319174	50	49
	100 1,2,4-Trimethylbenzene	105	16.232	16.232	(0.973)	3357362	50	49
	114 sec-Butylbenzene	105	16.424	16.424	(0.985)	4208977	50	49
	113 p-Isopropyltoluene	119	16.542	16.542	(0.992)	3548640	50	50
	67 1,3-Dichlorobenzene	146	16.616	16.616	(0.996)	2914395	50	48
*	91 1,4-Dichlorobenzene-d4	152	16.675	16.675	(1.000)	2099904	50	
	68 1,4-Dichlorobenzene	146	16.704	16.704	(1.002)	3538742	50	51
	117 Benzyl chloride	91	16.822	16.822	(1.009)	2308357	50	50
	111 n-Butylbenzene	91	17.000	17.000	(1.019)	3402748	50	50
	69 1,2-Dichlorobenzene	146	17.147	17.147	(1.028)	2967813	50	50
	101 1,2-Dibromo-3-chloropropane	75	18.004	18.004	(1.080)	454273	50	52
	93 1,2,4-Trichlorobenzene	180	19.009	19.009	(1.140)	2100546	50	51
	94 Hexachlorobutadiene	225	19.157	19.157	(1.149)	1224170	50	49
	70 Naphthalene	128	19.349	19.349	(1.160)	2417244	50	49
	98 1,2,3-Trichlorobenzene	180	19.659	19.659	(1.179)	1738866	50	51
M	14 1,2-Dichloroethene (total)	100				3039498	100	97
M	45 Xylene (Total)	100				4436467	150	160

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

303889

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6190.d
Date : 07-OCT-1998 08:01
Client ID:
Sample Info: ASTD050

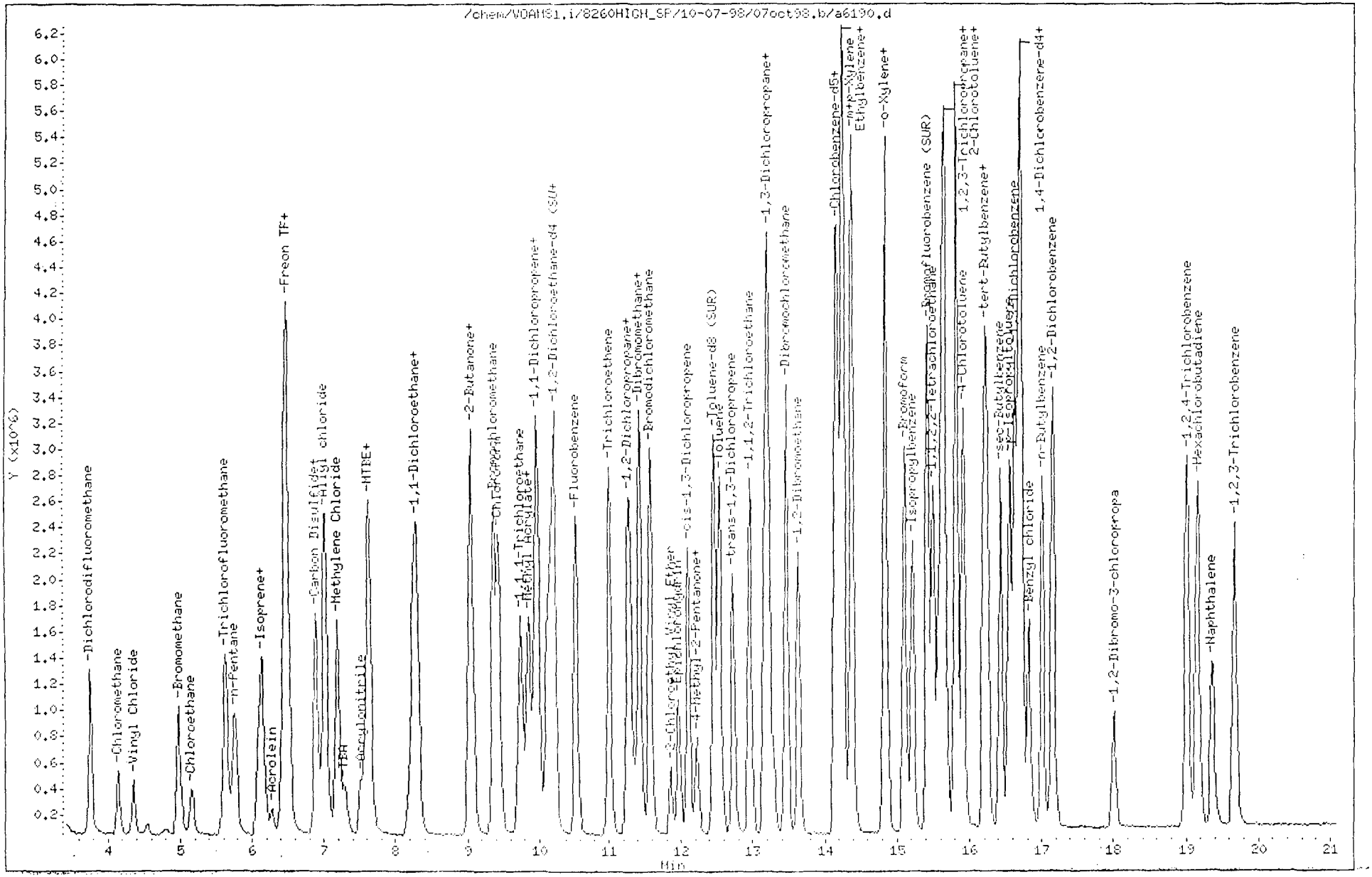
Instrument: VOAMS1.i

Operator: VOAMS 3

303890

Column phase: DB624

Column diameter: 0.53



Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6191.d
Report Date: 07-Oct-98 09:45:17

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6191.d
Lab Smp Id: ASTD100
Inj Date : 07-OCT-98 08:31:00
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : ASTD100
Misc Info :
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/new8260HIGH.m
Meth Date : 07-Oct-98 09:40:46 dave Quant Type: ISTD
Cal Date : 07-OCT-98 08:31:00 Cal File: a6191.d
Als bottle: 7 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.747	3.747	(0.356)	4376516	100	100
1 Chloromethane	50	4.131	4.131	(0.392)	1905912	100	100
4 Vinyl Chloride	62	4.353	4.353	(0.413)	1537640	100	100
3 Bromomethane	94	4.973	4.973	(0.472)	2924831	100	100
5 Chloroethane	64	5.150	5.150	(0.489)	1333312	100	99
9 Trichlorofluoromethane	101	5.623	5.623	(0.534)	5333800	100	98
121 n-Pentane	72	5.756	5.756	(0.547)	326465	100	91
46 Ethyl Ether	59	6.081	6.081	(0.578)	1708322	100	100(H)
119 Isoprene	67	6.140	6.140	(0.583)	2303295	100	95
47 Acrolein	56	6.273	6.273	(0.596)	583566	400	410
48 Freon TF	101	6.450	6.450	(0.613)	6655174	100	91
10 1,1-Dichloroethene	96	6.465	6.465	(0.614)	2684970	100	93
7 Acetone	43	6.495	6.495	(0.617)	607659	100	77
8 Carbon Disulfide	76	6.879	6.879	(0.653)	8097439	100	100
116 Allyl chloride	76	6.997	6.997	(0.665)	1406264	100	95
50 Acetonitrile	41	6.894	6.894	(0.655)	2360724	2000	1900

303891

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6191.d
Report Date: 07-Oct-98 09:45:17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 Methylene Chloride	84	7.189	7.189	(0.683)	3177790	100	94
	51 TBA	59	7.292	7.292	(0.693)	1891935	2000	1900
	52 Acrylonitrile	53	7.499	7.499	(0.712)	1084537	200	200
	53 MTBE	73	7.603	7.603	(0.722)	5464132	100	99
	12 trans-1,2-Dichloroethene	96	7.617	7.617	(0.724)	3028243	100	96
	11 1,1-Dichloroethane	63	8.223	8.223	(0.781)	5695868	100	99
	57 Vinyl Acetate	43	8.282	8.282	(0.787)	4266083	100	98
	55 DIPE	45	8.282	8.282	(0.787)	10105440	100	99
	18 2-Butanone	72	8.991	8.991	(0.854)	194425	100	97
	13 cis-1,2-Dichloroethene	96	9.036	9.036	(0.858)	3277717	100	99
	104 2,2-Dichloropropane	77	9.050	9.050	(0.860)	4083770	100	99
	108 Bromochloromethane	128	9.361	9.361	(0.889)	2817007	100	98
	15 Chloroform	83	9.420	9.420	(0.895)	6775900	100	100
	20 1,1,1-Trichloroethane	97	9.745	9.745	(0.926)	4805947	100	98
	59 Cyclohexane	56	9.848	9.848	(0.935)	3320636	100	92
	92 1,1-Dichloropropene	75	9.937	9.937	(0.944)	3928870	100	98
	21 Carbon Tetrachloride	117	9.981	9.981	(0.948)	4961923	100	100
$	16 1,2-Dichloroethane-d4 (SUR)	65	10.099	10.099	(0.959)	3258299	100	94
	61 Isopropyl Acetate	43	10.144	10.144	(0.964)	8784852	200	190
	17 1,2-Dichloroethane	62	10.188	10.188	(0.968)	3795673	100	100
	28 Benzene	78	10.218	10.218	(0.971)	7127321	100	96
*	19 Fluorobenzene	96	10.528	10.528	(1.000)	4503718	50	
	25 Trichloroethene	95	11.001	11.001	(1.045)	3849480	100	93
	22 1,2-Dichloropropane	63	11.267	11.267	(1.070)	3590047	100	96
	120 Methyl methacrylate	69	11.296	11.296	(1.072)	1652427	100	100
	109 Dibromomethane	93	11.414	11.414	(1.084)	4595022	100	100
	95 1,4-Dioxane	88	11.385	11.385	(1.081)	566688	4000	4100
	22 Bromodichloromethane	83	11.562	11.562	(1.098)	7494091	100	100
	30 2-Chloroethyl Vinyl Ether	63	11.857	11.857	(1.126)	916417	100	110(H)
	118 Epichlorohydrin	57	11.961	11.961	(1.136)	3769710	2000	2000
	24 cis-1,3-Dichloropropene	75	12.094	12.094	(1.149)	4973478	100	100
	33 4-Methyl-2-Pentanone	43	12.212	12.212	(1.160)	2542807	100	100
$	37 Toluene-d8 (SUR)	98	12.448	12.448	(0.881)	7830319	100	98
	38 Toluene	91	12.537	12.537	(0.887)	8034971	100	110
	29 trans-1,3-Dichloropropene	75	12.714	12.714	(0.900)	4175658	100	110
	27 1,1,2-Trichloroethane	83	12.951	12.951	(0.916)	3162036	100	110
	103 1,3-Dichloropropane	76	13.158	13.158	(0.931)	4802759	100	110
	35 Tetrachloroethene	166	13.202	13.202	(0.934)	4826017	100	100
	34 2-Hexanone	43	12.212	12.212	(0.864)	2544878	100	110
	26 Dibromochloromethane	129	13.453	13.453	(0.952)	7523948	100	110
	66 1,2-Dibromoethane	107	13.616	13.616	(0.963)	6231512	100	110
*	32 Chlorobenzene-d5	117	14.133	14.133	(1.000)	3906515	50	
	39 Chlorobenzene	112	14.177	14.177	(1.003)	6775416	100	110
	40 Ethylbenzene	106	14.251	14.251	(1.008)	2549703	100	110
	43 m+p-Xylene	106	14.369	14.369	(1.017)	6153619	200	210
	97 1,1,1,2-Tetrachloroethane	131	14.236	14.236	(1.007)	4266428	100	110
	44 o-Xylene	106	14.827	14.827	(1.049)	3089551	100	110

303892

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6191.d
Report Date: 07-Oct-98 09:45:17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	42 Styrene	104	14.827	14.827	(1.049)	5257718	100	100
	31 Bromoform	173	15.093	15.093	(1.068)	5735405	100	120
	110 Isopropylbenzene	105	15.211	15.211	(1.076)	6274575	100	99
$	41 Bromofluorobenzene (SUR)	174	15.418	15.418	(0.925)	4477094	100	92
	36 1,1,2,2-Tetrachloroethane	83	15.492	15.492	(0.929)	5731405	100	96
	99 1,2,3-Trichloropropane	75	15.566	15.566	(0.934)	3842646	100	99
	107 Bromobenzene	156	15.625	15.625	(0.937)	4423443	100	97
	112 n-Propylbenzene	91	15.654	15.654	(0.939)	10061942	100	98
	105 2-Chlorotoluene	91	15.802	15.802	(0.948)	7743045	100	98
	102 1,3,5-Trimethylbenzene	105	15.802	15.802	(0.948)	6674482	100	96
	106 4-Chlorotoluene	91	15.905	15.905	(0.954)	8088612	100	97
	115 tert-Butylbenzene	119	16.186	16.186	(0.971)	6987858	100	97
	100 1,2,4-Trimethylbenzene	105	16.230	16.230	(0.973)	6984912	100	96
	114 sec-Butylbenzene	105	16.422	16.422	(0.985)	8909611	100	98
	113 p-Isopropyltoluene	119	16.541	16.541	(0.992)	7452615	100	99
	67 1,3-Dichlorobenzene	146	16.615	16.615	(0.996)	6089520	100	95
*	91 1,4-Dichlorobenzene-d4	152	16.674	16.674	(1.000)	2226324	50	
	68 1,4-Dichlorobenzene	146	16.703	16.703	(1.002)	7315342	100	99
	117 Benzyl chloride	91	16.821	16.821	(1.009)	4996695	100	100
	111 n-Butylbenzene	91	16.999	16.999	(1.019)	7188777	100	100
	69 1,2-Dichlorobenzene	146	17.146	17.146	(1.028)	6210962	100	98
	101 1,2-Dibromo-3-chloropropane	75	17.988	17.988	(1.079)	987600	100	100
	93 1,2,4-Trichlorobenzene	180	19.008	19.008	(1.140)	4409213	100	100
	94 Hexachlorobutadiene	225	19.156	19.156	(1.149)	2564689	100	98
	70 Naphthalene	128	19.348	19.348	(1.160)	5124401	100	98
	98 1,2,3-Trichlorobenzene	180	19.658	19.658	(1.179)	3614789	100	100
M	14 1,2-Dichloroethene (total)	100				6305960	200	190
M	45 Xylene (Total)	100				9243170	300	320

QC Flag Legend

H - Operator selected an alternate compound hit.

303893

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6191.d
Date : 07-OCT-1998 08:31
Client ID:
Sample Info: ASTD100

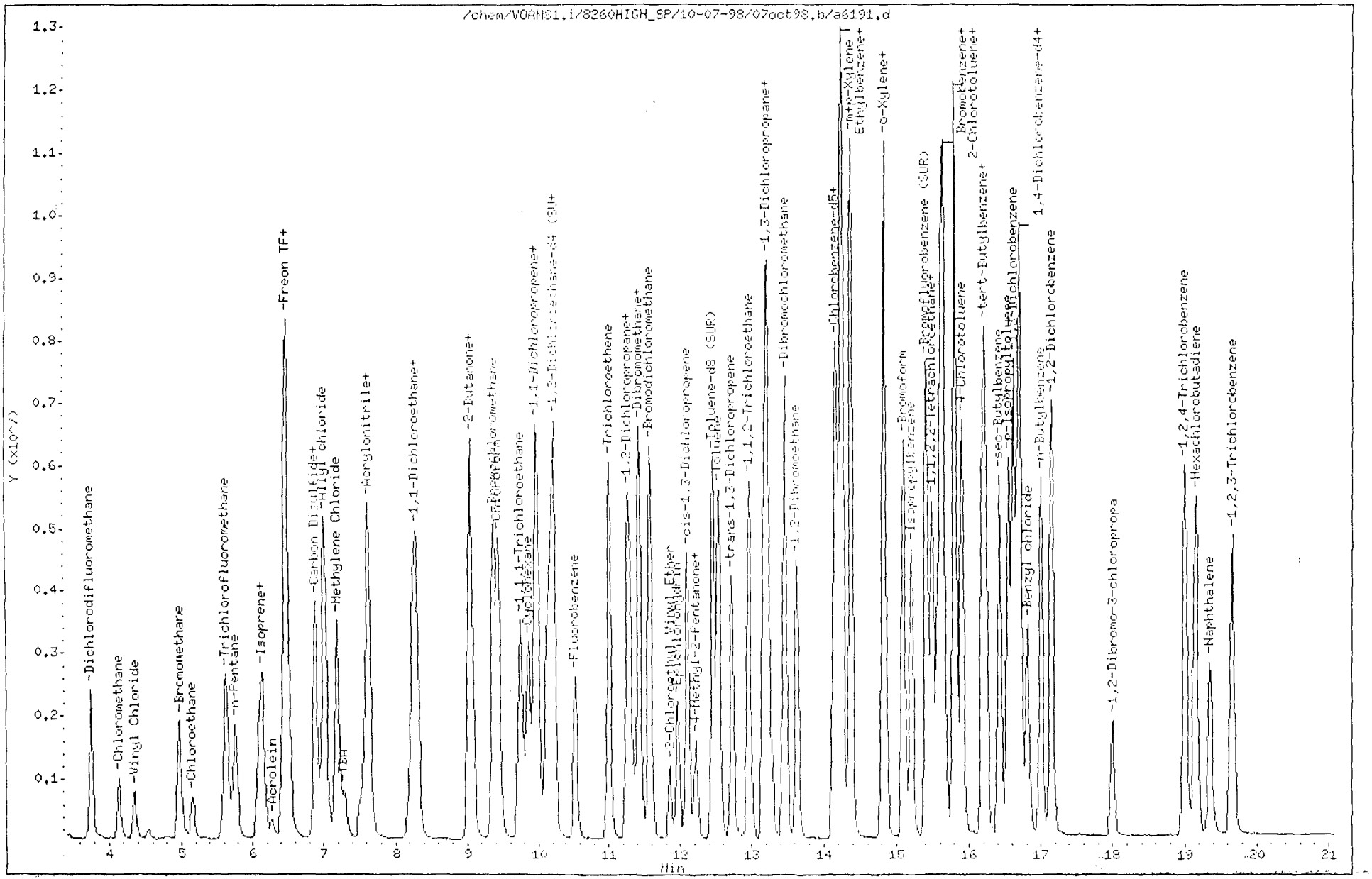
Instrument: VOAMS1.i

Operator: VOAMS 3

303894

Column phase: DB624

Column diameter: 0.53



357

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6192.d
Report Date: 07-Oct-98 09:52:23

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6192.d
Lab Smp Id: ASTD200
Inj Date : 07-OCT-98 09:00:00
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : ASTD200
Misc Info :
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/new8260HIGH.m
Meth Date : 07-Oct-98 09:46:31 dave Quant Type: ISTD
Cal Date : 07-OCT-98 09:00:00 Cal File: a6192.d
Als bottle: 8 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.734	3.734	(0.355)	9333213	200	210(A)
1 Chloromethane	50	4.118	4.118	(0.391)	4002858	200	200(A)
4 Vinyl Chloride	62	4.340	4.340	(0.412)	3237302	200	200(A)
3 Bromomethane	94	4.946	4.946	(0.470)	6264971	200	210(A)
5 Chloroethane	64	5.138	5.138	(0.488)	2805747	200	200
9 Trichlorofluoromethane	101	5.611	5.611	(0.533)	11522257	200	200(A)
121 n-Pentane	72	5.743	5.743	(0.545)	705411	200	190
46 Ethyl Ether	59	6.068	6.068	(0.576)	3569569	200	200(A)
119 Isoprene	67	6.128	6.128	(0.582)	5120413	200	200(A)
47 Acrolein	56	6.261	6.261	(0.595)	873925	500	580(A)
48 Freon TF	101	6.453	6.453	(0.613)	15166932	200	200
10 1,1-Dichloroethene	96	6.467	6.467	(0.614)	5840828	200	190
7 Acetone	43	6.497	6.497	(0.617)	1273226	200	150
8 Carbon Disulfide	76	6.866	6.866	(0.652)	17610748	200	210(A)
116 Allyl chloride	76	6.999	6.999	(0.665)	3204785	200	210(A)
50 Acetonitrile	41	6.881	6.881	(0.653)	5909954	4000	4400(A)

303895

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6192.d
Report Date: 07-Oct-98 09:52:23

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 Methylene Chloride	84	7.162	7.162	(0.680)	7058404	200	200
	51 TBA	59	7.280	7.280	(0.691)	4596193	4000	4400(A)
	52 Acrylonitrile	53	7.502	7.502	(0.712)	1592705	250	280(A)
	53 MTBE	73	7.590	7.590	(0.721)	12193287	200	210(A)
	12 trans-1,2-Dichloroethene	96	7.605	7.605	(0.722)	6811813	200	200(A)
	122 Allyl alcohol	57	7.590	7.590	(0.721)	2868872	5000	(a)
	11 1,1-Dichloroethane	63	8.211	8.211	(0.780)	12764774	200	210(A)
	57 Vinyl Acetate	43	8.270	8.270	(0.785)	9409368	200	200(A)
	55 DIPE	45	8.270	8.270	(0.785)	22388611	200	210(A)
	18 2-Butanone	72	8.979	8.979	(0.853)	402642	200	190
	13 cis-1,2-Dichloroethene	96	9.023	9.023	(0.857)	6842290	200	200
	104 2,2-Dichloropropane	77	9.038	9.038	(0.858)	8655648	200	200
	108 Bromochloromethane	128	9.348	9.348	(0.888)	5923207	200	200
	15 Chloroform	83	9.422	9.422	(0.895)	14298215	200	200(A)
	20 1,1,1-Trichloroethane	97	9.732	9.732	(0.924)	10318991	200	200
	59 Cyclohexane	56	9.836	9.836	(0.934)	7284249	200	190
	92 1,1-Dichloropropene	75	9.924	9.924	(0.942)	8242504	200	190
	21 Carbon Tetrachloride	117	9.969	9.969	(0.947)	10538096	200	200(A)
$	16 1,2-Dichloroethane-d4 (SUR)	65	10.087	10.087	(0.958)	6699676	200	180
	61 Isopropyl Acetate	43	10.131	10.131	(0.962)	18296439	400	370
	17 1,2-Dichloroethane	62	10.176	10.176	(0.966)	7831078	200	200
	28 Benzene	78	10.205	10.205	(0.969)	14855029	200	190
*	19 Fluorobenzene	96	10.530	10.530	(1.000)	4754078	50	
	25 Trichloroethene	95	10.988	10.988	(1.043)	8098200	200	180
	23 1,2-Dichloropropane	63	11.254	11.254	(1.069)	7316461	200	180
	120 Methyl methacrylate	69	11.284	11.284	(1.072)	3499510	200	200(A)
	109 Dibromomethane	93	11.402	11.402	(1.083)	9457232	200	190
	95 1,4-Dioxane	88	11.387	11.387	(1.081)	812534	5000	5500(A)
	22 Bromodichloromethane	83	11.564	11.564	(1.098)	15658729	200	200(A)
	30 2-Chloroethyl Vinyl Ether	63	11.845	11.845	(1.125)	2226658	200	240(A)
	118 Epichlorohydrin	57	11.948	11.948	(1.135)	8220914	4000	4100(A)
	24 cis-1,3-Dichloropropene	75	12.081	12.081	(1.147)	10554473	200	200(A)
	33 4-Methyl-2-Pentanone	43	12.200	12.200	(1.159)	5418862	200	210(A)
$	37 Toluene-d8 (SUR)	98	12.436	12.436	(0.874)	16214257	200	180
	38 Toluene	91	12.525	12.525	(0.881)	16843965	200	200
	29 trans-1,3-Dichloropropene	75	12.702	12.702	(0.893)	8934971	200	210(A)
	27 1,1,2-Trichloroethane	83	12.938	12.938	(0.910)	6524293	200	200(A)
	103 1,3-Dichloropropane	76	13.145	13.145	(0.924)	9739134	200	200
	35 Tetrachloroethene	166	13.204	13.204	(0.928)	9984337	200	190
	34 2-Hexanone	43	12.200	12.200	(0.858)	5413371	200	220(A)
	26 Dibromochloromethane	129	13.441	13.441	(0.945)	15870796	200	210(A)
	66 1,2-Dibromoethane	107	13.618	13.618	(0.957)	13080123	200	210(A)
*	32 Chlorobenzene-d5	117	14.135	14.135	(1.000)	4008489	50	(H)
	39 Chlorobenzene	112	14.164	14.164	(0.996)	13937212	200	200
	40 Ethylbenzene	106	14.238	14.238	(1.001)	5011203	200	190(H)
	43 m+p-Xylene	106	14.356	14.356	(1.009)	12538533	400	380
	97 1,1,1,2-Tetrachloroethane	131	14.223	14.223	(1.000)	8668197	200	200(H)

303896

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6192.d
Report Date: 07-Oct-98 09:52:23

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	44 o-Xylene	106	14.814	14.814	(1.042)	6272120	200	190
	42 Styrene	104	14.829	14.829	(1.043)	10814606	200	190
	31 Bromoform	173	15.095	15.095	(1.061)	12187778	200	220(A)
	110 Isopropylbenzene	105	15.199	15.199	(1.069)	13160875	200	190
$	41 Bromofluorobenzene (SUR)	174	15.405	15.405	(0.924)	9157659	200	180
	36 1,1,2,2-Tetrachloroethane	83	15.479	15.479	(0.928)	11906313	200	190
	99 1,2,3-Trichloropropane	75	15.568	15.568	(0.934)	7934402	200	200
	107 Bromobenzene	156	15.612	15.612	(0.936)	9138158	200	200
	112 n-Propylbenzene	91	15.642	15.642	(0.938)	20226991	200	190
	105 2-Chlorotoluene	91	15.789	15.789	(0.947)	15457836	200	190
	102 1,3,5-Trimethylbenzene	105	15.804	15.804	(0.948)	13247019	200	190
	106 4-Chlorotoluene	91	15.893	15.893	(0.953)	16997206	200	200
	115 tert-Butylbenzene	119	16.188	16.188	(0.971)	14386027	200	200
	100 1,2,4-Trimethylbenzene	105	16.218	16.218	(0.973)	14010267	200	190
	114 sec-Butylbenzene	105	16.410	16.410	(0.984)	18596145	200	200
	113 p-Isopropyltoluene	119	16.543	16.543	(0.992)	15147719	200	200
	67 1,3-Dichlorobenzene	146	16.617	16.617	(0.996)	13085472	200	200
*	91 1,4-Dichlorobenzene-d4	152	16.676	16.676	(1.000)	2278644	50	
	68 1,4-Dichlorobenzene	146	16.705	16.705	(1.002)	14616256	200	190
	117 Benzyl chloride	91	16.809	16.809	(1.008)	10475848	200	210(A)
	111 n-Butylbenzene	91	17.001	17.001	(1.019)	14519242	200	200
	69 1,2-Dichlorobenzene	146	17.149	17.149	(1.028)	12839486	200	200
	101 1,2-Dibromo-3-chloropropane	75	17.991	17.991	(1.079)	1998367	200	210(A)
	93 1,2,4-Trichlorobenzene	180	18.995	18.995	(1.139)	8723774	200	190
	94 Hexachlorobutadiene	225	19.158	19.158	(1.149)	5039748	200	190
	70 Naphthalene	128	19.350	19.350	(1.160)	10732269	200	200(A)
	98 1,2,3-Trichlorobenzene	180	19.660	19.660	(1.179)	7372179	200	200
M	14 1,2-Dichloroethene (total)	100				13654103	400	400
M	45 Xylene (Total)	100				18810653	600	580

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
H - Operator selected an alternate compound hit.

303897

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/07oct98.b/a6192.d
Date : 07-OCT-1998 09:00
Client ID:
Sample Info: ASTD200

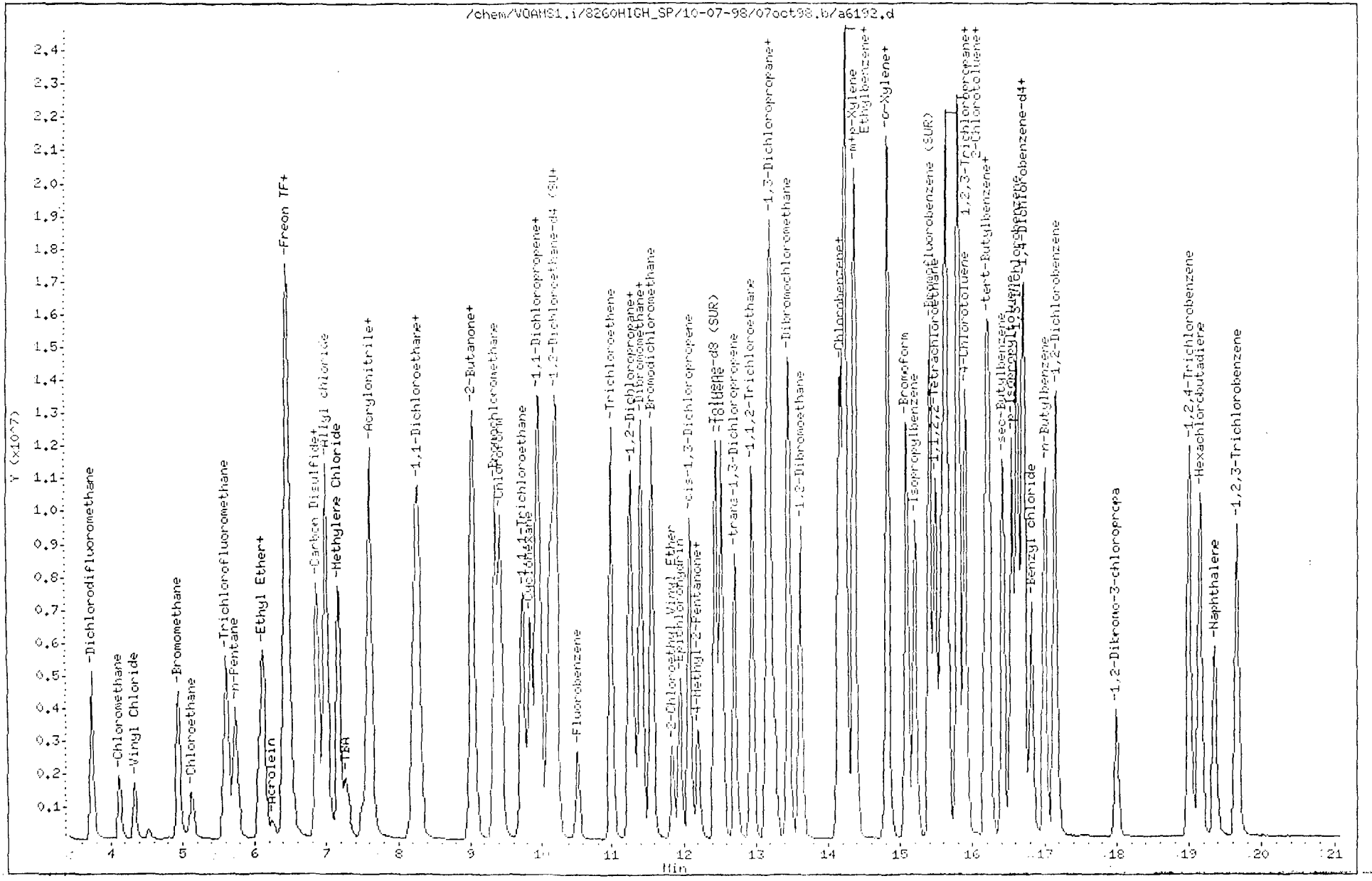
Instrument: VOAMS1.i

Operator: VOAMS 3

303898

Column phase: DB624

Column diameter: 0.53



361

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date: 10/20/98 Time: 1106

Lab File ID: A6469 Init. Calib. Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Init. Calib. Times: 0615 0900

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.208	0.213	0.1	-2.4	50.0
Bromomethane	0.308	0.196		36.4	50.0
Vinyl Chloride	0.170	0.190		-11.6	20.0
Chloroethane	0.149	0.170		-13.9	50.0
Methylene Chloride	0.377	0.375		0.5	50.0
Acetone	0.088	0.081		8.0	50.0
Carbon Disulfide	0.876	0.969		-10.6	50.0
Trichlorofluoromethane	0.601	0.663		-10.3	50.0
1,1-Dichloroethene	0.322	0.342		-6.2	20.0
1,1-Dichloroethane	0.636	0.687	0.1	-8.0	50.0
trans-1,2-Dichloroethene	0.349	0.361		-3.4	50.0
cis-1,2-Dichloroethene	0.369	0.388		-5.1	50.0
Chloroform	0.752	0.791		-5.0	20.0
1,2-Dichloroethane	0.417	0.424		-1.5	50.0
2-Butanone	0.022	0.026		-18.0	50.0
1,1,1-Trichloroethane	0.545	0.554		-1.6	50.0
Carbon Tetrachloride	0.551	0.566		-2.7	50.0
Bromodichloromethane	0.817	0.842		-3.0	50.0
1,2-Dichloropropane	0.416	0.391		6.0	20.0
cis-1,3-Dichloropropene	0.548	0.547		0.2	50.0
Trichloroethene	0.458	0.432		5.7	50.0
Dibromochloromethane	0.937	0.914		2.4	50.0
1,1,2-Trichloroethane	0.400	0.393		1.8	50.0
Benzene	0.824	0.786		4.6	50.0
trans-1,3-Dichloropropene	0.532	0.506		4.9	50.0
2-Chloroethyl Vinyl Ether	0.095	0.063		33.7	50.0
Bromoform	0.692	0.703	0.1	-1.4	50.0
4-Methyl-2-Pentanone	0.268	0.301		-12.3	50.0
2-Hexanone	0.314	0.340		-8.1	50.0
Tetrachloroethene	0.667	0.627		6.0	50.0
1,1,2,2-Tetrachloroethane	1.345	1.270	0.3	5.6	50.0
Toluene	1.052	1.019		3.1	20.0
Chlorobenzene	0.887	0.864	0.3	2.6	50.0
Ethylbenzene	0.332	0.330		0.6	20.0
Styrene	0.692	0.682		1.4	50.0
Xylene (Total)	0.404	0.386		4.4	50.0
Ethyl Ether	0.188	0.197		-4.6	50.0

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date: 10/20/98 Time: 1106

Lab File ID: A6469 Init. Calib. Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Init. Calib. Times: 0615 0900

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Acrolein	0.016	0.009		43.8	50.0
Freon TF	0.810	0.892		-10.1	50.0
Isopropanol					50.0
Acetonitrile	0.014	0.018		-28.4	50.0
TBA	0.011	0.017		-54.5	50.0
Acrylonitrile	0.059	0.068		-15.2	50.0
MTBE	0.611	0.673		-10.1	50.0
Hexane					50.0
DIPE	1.132	1.243		-9.8	50.0
Ethyl Acetate					50.0
Vinyl Acetate	0.485	0.530		-9.1	50.0
Tetrahydrofuran					50.0
Cyclohexane	0.401	0.418		-4.2	50.0
Isobutanol					50.0
Isopropyl Acetate	0.515	0.506		1.7	50.0
n-Heptane					50.0
n-Butanol					50.0
Propyl Acetate					50.0
Butyl Acetate					50.0
1,2-Dibromoethane	0.792	0.766		3.3	50.0
1,3-Dichlorobenzene	1.437	1.320		8.1	50.0
1,4-Dichlorobenzene	1.655	1.487		10.2	50.0
1,2-Dichlorobenzene	1.418	1.302		8.2	50.0
Naphthalene	1.169	1.150		1.6	50.0
Methylnaphthalene (total)					50.0
Dimethylnaphthalene (total)					50.0
Dichlorodifluoromethane	0.462	0.542		-17.3	50.0
1,1-Dichloropropene	0.445	0.440		1.1	50.0
1,2,4-Trichlorobenzene	0.986	0.951		3.5	50.0
Hexachlorobutadiene	0.591	0.554		6.3	50.0
1,4-Dioxane	0.002	0.003		-50.0	50.0
Methyl Acrylate					50.0
1,1,1,2-Tetrachloroethane	0.543	0.549		-1.1	50.0
1,2,3-Trichlorobenzene	0.816	0.803		1.6	50.0
1,2,3-Trichloropropane	0.872	0.856		1.8	50.0
1,2,4-Trimethylbenzene	1.628	1.515		6.9	50.0
1,2-Dibromo-3-chloropropane	0.210	0.215		-2.2	50.0

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8260B

Instrument ID: VOAMS1 Calibration Date: 10/20/98 Time: 1106

Lab File ID: A6469 Init. Calib. Date(s): 10/07/98 10/07/98

Heated Purge: (Y/N) N Init. Calib. Times: 0615 0900

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,3,5-Trimethylbenzene	1.557	1.462		6.1	50.0
1,3-Dichloropropane	0.614	0.620		0.1	50.0
2,2-Dichloropropane	0.457	0.525		-14.7	50.0
2-Chlorotoluene	1.766	1.673		5.3	50.0
4-Chlorotoluene	1.867	1.768		5.3	50.0
Bromobenzene	1.019	0.971		4.7	50.0
Bromochloromethane	0.317	0.335		-5.5	50.0
Dibromomethane	0.512	0.518		-1.0	50.0
Isopropylbenzene	0.881	1.085		-23.0	50.0
n-Butylbenzene	1.621	1.515		6.5	50.0
n-Propylbenzene	2.297	2.148		6.5	50.0
p-Isopropyltoluene	1.685	1.586		5.9	50.0
sec-Butylbenzene	2.043	1.854		9.2	50.0
tert-Butylbenzene	1.617	1.498		7.4	50.0
Allyl chloride	0.163	0.187		-14.7	50.0
Benzyl chloride	1.094	1.071		2.1	50.0
Epichlorohydrin	0.021	0.024		-14.1	50.0
Isoprene	0.268	0.279		-4.1	50.0
Methyl methacrylate	0.184	0.194		-5.4	50.0
n-Pentane	0.040	0.043		-7.5	50.0
Allyl alcohol					50.0
Amyl Acetate					50.0
1,2-Dichloroethane-d4 (SUR)	0.384	0.372		3.1	50.0
Toluene-d8 (SUR)	1.100	1.029		6.4	50.0
Bromofluorobenzene (SUR)	1.099	1.024		6.8	50.0

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6469.d
Report Date: 21-Oct-98 08:54:34

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6469.d
Lab Smp Id: ASTD293
Inj Date : 20-OCT-98 11:06:00
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : ASTD293
Misc Info :
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/new8260HIGH.m
Meth Date : 21-Oct-98 08:40:02 dave Quant Type: ISTD
Cal Date : 07-OCT-98 09:00:00 Cal File: a6192.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
90 Dichlorodifluoromethane	85	3.690	3.734	(0.351)	1976116	50	59
1 Chloromethane	50	4.089	4.118	(0.389)	775725	50	51
4 Vinyl Chloride	62	4.296	4.340	(0.409)	691441	50	56
3 Bromomethane	94	4.916	4.946	(0.468)	716183	50	32
5 Chloroethane	64	5.093	5.138	(0.484)	618559	50	57
9 Trichlorofluoromethane	101	5.566	5.611	(0.529)	2415227	50	55
121 n-Pentane	72	5.699	5.743	(0.542)	155562	50	54
46 Ethyl Ether	59	6.024	6.068	(0.573)	718117	50	52
119 Isoprene	67	6.083	6.128	(0.579)	1017713	50	52
47 Acrolein	56	6.231	6.261	(0.593)	192301	300	160
48 Freon TF	101	6.408	6.453	(0.609)	3252151	50	55
10 1,1-Dichloroethene	96	6.423	6.467	(0.611)	1245097	50	53
7 Acetone	43	6.453	6.497	(0.614)	295738	50	46
8 Carbon Disulfide	76	6.822	6.866	(0.649)	3532062	50	55
116 Allyl chloride	76	6.955	6.999	(0.661)	683132	50	57
50 Acetonitrile	41	6.852	6.881	(0.652)	1337680	1000	1300

303902

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6469.d
Report Date: 21-Oct-98 08:54:34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 Methylene Chloride	84	7.132	7.162	(0.678)	1366004	50	50
	51 TBA	59	7.250	7.280	(0.690)	1245828	1000	1600(M)
	52 Acrylonitrile	53	7.457	7.502	(0.709)	747189	150	170
	53 MTBE	73	7.561	7.590	(0.719)	2454060	50	55
	12 trans-1,2-Dichloroethene	96	7.575	7.605	(0.720)	1316922	50	52
	11 1,1-Dichloroethane	63	8.196	8.211	(0.779)	2505321	50	54
	57 Vinyl Acetate	43	8.240	8.270	(0.784)	1932997	50	55
	55 DIPE	45	8.240	8.270	(0.784)	4531541	50	55
	18 2-Butanone	72	8.964	8.979	(0.852)	96918	50	60
	13 cis-1,2-Dichloroethene	96	8.994	9.023	(0.855)	1412465	50	52
	104 2,2-Dichloropropane	77	9.023	9.038	(0.858)	1912575	50	57
	108 Bromochloromethane	128	9.319	9.348	(0.886)	1220523	50	53
	15 Chloroform	83	9.393	9.422	(0.893)	2892024	50	53
	20 1,1,1-Trichloroethane	97	9.718	9.732	(0.924)	2020439	50	51
	59 Cyclohexane	56	9.821	9.836	(0.934)	1525296	50	52
	92 1,1-Dichloropropene	75	9.910	9.924	(0.942)	1605170	50	50
	21 Carbon Tetrachloride	117	9.954	9.969	(0.947)	2064456	50	51
$	16 1,2-Dichloroethane-d4 (SUR)	65	10.072	10.087	(0.958)	1354520	50	48
	61 Isopropyl Acetate	43	10.117	10.131	(0.962)	3688991	100	98
	17 1,2-Dichloroethane	62	10.161	10.176	(0.966)	1543922	50	51
	28 Benzene	78	10.190	10.205	(0.969)	2866652	50	48
*	19 Fluorobenzene	96	10.515	10.530	(1.000)	3644575	50	
	25 Trichloroethene	95	10.973	10.988	(1.044)	1572640	50	47
	23 1,2-Dichloropropane	63	11.239	11.254	(1.069)	1426707	50	47
	120 Methyl methacrylate	69	11.284	11.284	(1.073)	708125	50	53
	109 Dibromomethane	93	11.402	11.402	(1.084)	1886800	50	50
	95 1,4-Dioxane	88	11.372	11.387	(1.081)	588517	3000	5200(A)
	22 Bromodichloromethane	83	11.550	11.564	(1.098)	3067520	50	52
	30 2-Chloroethyl Vinyl Ether	63	11.845	11.845	(1.126)	228873	50	33
	118 Epichlorohydrin	57	11.948	11.948	(1.136)	1758012	1000	1100
	24 cis-1,3-Dichloropropene	75	12.081	12.081	(1.149)	1995023	50	50
	33 4-Methyl-2-Pentanone	43	12.200	12.200	(1.160)	1096502	50	56
$	37 Toluene-d8 (SUR)	98	12.436	12.436	(0.880)	3318767	50	47
	38 Toluene	91	12.525	12.525	(0.886)	3286802	50	48
	29 trans-1,3-Dichloropropene	75	12.702	12.702	(0.899)	1631821	50	48
	27 1,1,2-Trichloroethane	83	12.938	12.938	(0.915)	1268418	50	49
	103 1,3-Dichloropropane	76	13.145	13.145	(0.930)	1998186	50	50
	35 Tetrachloroethene	166	13.204	13.204	(0.934)	2021990	50	47
	34 2-Hexanone	43	12.200	12.200	(0.863)	1096502	50	54
	26 Dibromochloromethane	129	13.455	13.441	(0.952)	2946273	50	49
	66 1,2-Dibromoethane	107	13.618	13.618	(0.963)	2470691	50	48
*	32 Chlorobenzene-d5	117	14.135	14.135	(1.000)	3224925	50	
	39 Chlorobenzene	112	14.164	14.164	(1.002)	2787204	50	49
	40 Ethylbenzene	106	14.253	14.238	(1.008)	1063382	50	50
	43 m+p-Xylene	106	14.371	14.356	(1.017)	2504196	100	96
	97 1,1,1,2-Tetrachloroethane	131	14.238	14.223	(1.007)	1772058	50	50
	44 o-Xylene	106	14.829	14.814	(1.049)	1234276	50	48

303903

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6469.d
Report Date: 21-Oct-98 08:54:34

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	42 Styrene	104	14.829	14.829	(1.049)	2198057	50	49
	31 Bromoform	173	15.095	15.095	(1.068)	2267593	50	51
	110 Isopropylbenzene	105	15.213	15.199	(1.076)	3498189	50	62
$	41 Bromofluorobenzene (SUR)	174	15.420	15.405	(0.924)	1913289	50	46
	36 1,1,2,2-Tetrachloroethane	83	15.494	15.479	(0.928)	2373114	50	47
	99 1,2,3-Trichloropropane	75	15.583	15.568	(0.934)	1600083	50	49
	107 Bromobenzene	156	15.627	15.612	(0.936)	1814914	50	48
	112 n-Propylbenzene	91	15.657	15.642	(0.938)	4014633	50	47
	105 2-Chlorotoluene	91	15.804	15.789	(0.947)	3126712	50	47
	102 1,3,5-Trimethylbenzene	105	15.819	15.804	(0.948)	2732671	50	47
	106 4-Chlorotoluene	91	15.908	15.893	(0.953)	3303264	50	47
	115 tert-Butylbenzene	119	16.203	16.188	(0.971)	2800597	50	46
	100 1,2,4-Trimethylbenzene	105	16.248	16.219	(0.973)	2830945	50	46
	114 sec-Butylbenzene	105	16.440	16.410	(0.985)	3464260	50	45
	113 p-Isopropyltoluene	119	16.558	16.543	(0.992)	2964134	50	47
	67 1,3-Dichlorobenzene	146	16.632	16.617	(0.996)	2466354	50	46
*	91 1,4-Dichlorobenzene-d4	152	16.691	16.676	(1.000)	1868847	50	
	68 1,4-Dichlorobenzene	146	16.720	16.705	(1.002)	2778278	50	45
	117 Benzyl chloride	91	16.824	16.8[illegible]9	(1.008)	[illegible]	50	49
	111 n-Butylbenzene	91	17.016	17.001	(1.019)	2830738	50	47
	69 1,2-Dichlorobenzene	146	17.163	17.149	(1.028)	2423375	50	46
	101 1,2-Dibromo-3-chloropropane	75	18.020	17.991	(1.080)	402181	50	51
	93 1,2,4-Trichlorobenzene	180	19.025	18.995	(1.140)	1777419	50	48
	94 Hexachlorobutadiene	225	19.173	19.158	(1.149)	1036212	50	47
	70 Naphthalene	128	19.380	19.350	(1.161)	2149069	50	49
	98 1,2,3-Trichlorobenzene	180	19.690	19.660	(1.180)	1500542	50	49
M	14 1,2-Dichloroethene (total)	100				2729387	100	100
M	45 Xylene (Total)	100				3738572	150	140

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

303904

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6469.d
Date : 20-OCT-1998 11:06
Client ID:
Sample Info: ASTD293

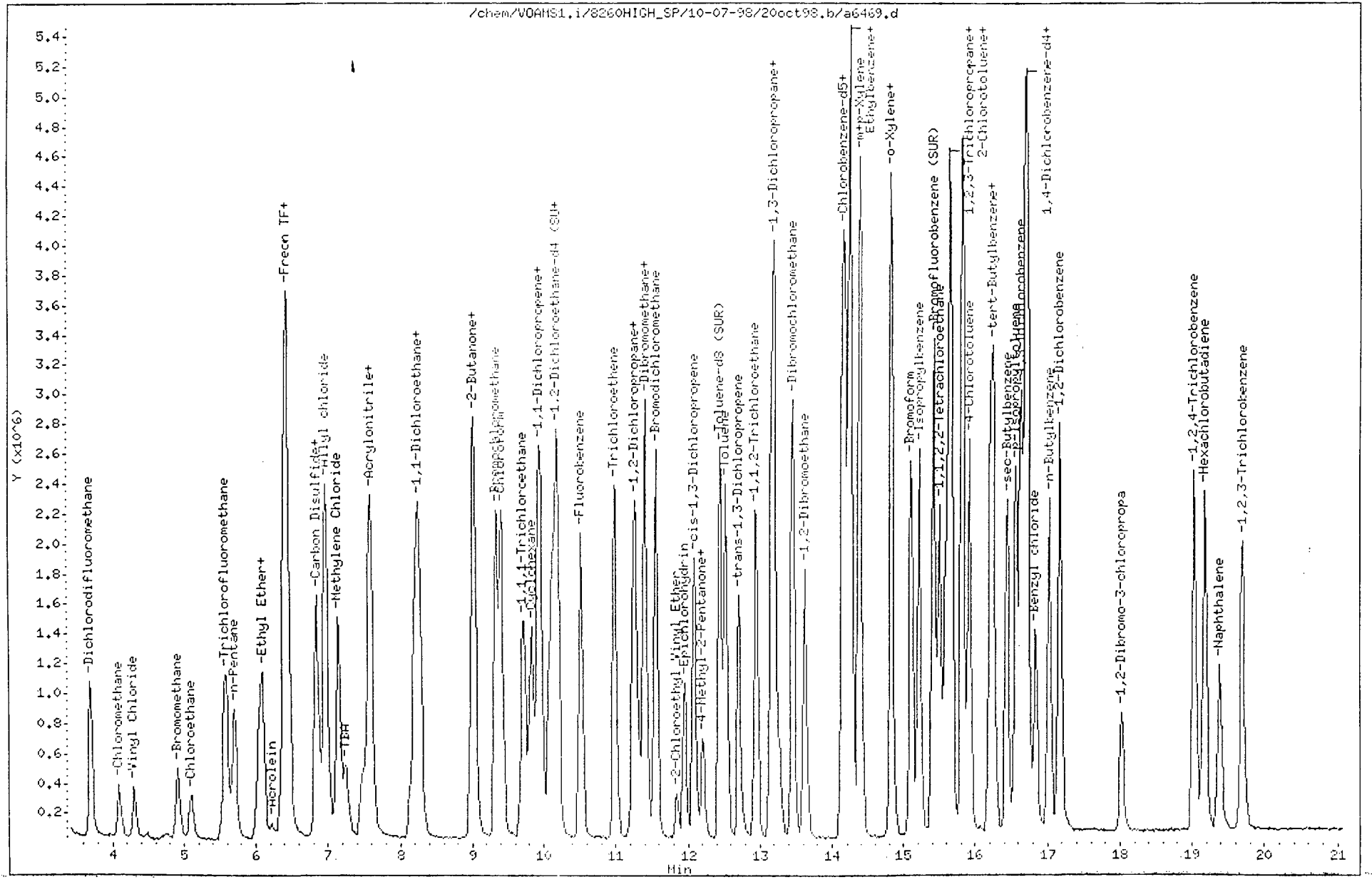
Instrument: VOAMS1.i

Operator: VOAMS 3

303905

Column phase: DB624

Column diameter: 0.53



368

VOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 8260B

Instrument ID: VOAMS2 Calibration Date(s): 09/29/98 09/29/98

Heated Purge: (Y/N) N Calibration Time(s): 1802 2116

LAB FILE ID: RRF5: B8233 RRF20: B8235 RRF50: B8236
RRF100: B8237 RRF200: B8238

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
Chloromethane	0.199	0.207	0.277	0.235	0.234
Bromomethane	0.224	0.178	0.243	0.178	0.137
Vinyl Chloride	0.189	0.189	0.246	0.214	0.194
Chloroethane	0.184	0.162	0.202	0.183	0.162
Methylene Chloride	0.540	0.340	0.391	0.343	0.340
Acetone	0.243	0.130	0.103	0.096	0.095
Carbon Disulfide	0.959	0.869	1.096	0.938	0.956
Trichlorofluoromethane	0.450	0.421	0.509	0.467	0.412
1,1-Dichloroethene	0.417	0.298	0.318	0.292	0.292
1,1-Dichloroethane	0.759	0.641	0.726	0.669	0.675
trans-1,2-Dichloroethene	0.397	0.314	0.360	0.326	0.326
cis-1,2-Dichloroethene	0.404	0.321	0.382	0.337	0.341
Chloroform	0.757	0.631	0.733	0.649	0.655
1,2-Dichloroethane	0.447	0.366	0.413	0.381	0.387
2-Butanone	0.048	0.039	0.045	0.037	0.038
1,1,1-Trichloroethane	0.545	0.419	0.468	0.442	0.447
Carbon Tetrachloride	0.476	0.393	0.452	0.426	0.418
Bromodichloromethane	0.722	0.570	0.715	0.626	0.632
1,2-Dichloropropane	0.570	0.405	0.466	0.437	0.431
cis-1,3-Dichloropropene	0.647	0.510	0.594	0.539	0.545
Trichloroethene	0.515	0.370	0.437	0.391	0.385
Dibromochloromethane	0.789	0.676	0.794	0.774	0.808
1,1,2-Trichloroethane	0.553	0.456	0.552	0.496	0.512
Benzene	1.300	0.861	0.988	0.905	0.900
trans-1,3-Dichloropropene	0.762	0.595	0.677	0.645	0.681
2-Chloroethyl Vinyl Ether	0.276	0.238	0.335	0.273	0.277
Bromoform	0.528	0.510	0.625	0.597	0.623
4-Methyl-2-Pentanone	0.465	0.407	0.434	0.397	0.410
2-Hexanone	0.377	0.362	0.389	0.354	0.465
Tetrachloroethene	0.709	0.519	0.567	0.544	0.554
1,1,2,2-Tetrachloroethane	3.044	1.898	2.107	2.023	1.938
Toluene	1.641	1.308	1.434	1.356	1.416
Chlorobenzene	1.137	0.920	1.005	0.969	0.995
Ethylbenzene	0.494	0.436	0.463	0.433	0.441
Styrene	0.952	0.824	0.928	0.867	0.887
Xylene (Total)	0.604	0.505	0.558	0.533	0.540
Ethyl Ether	0.302	0.270	0.290	0.264	0.247
Acrolein	0.037	0.034	0.033	0.033	0.032
Freon TF	0.746	0.704	0.745	0.690	0.615

303906

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS2 Calibration Date(s): 09/29/98 09/29/98

Heated Purge: (Y/N) N Calibration Time(s): 1802 2116

LAB FILE ID: RRF5: B8233 RRF20: B8235 RRF50: B8236
RRF100: B8237 RRF200: B8238

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
Isopropanol					
Acetonitrile	0.035	0.026	0.031	0.027	0.028
TBA	0.032	0.027	0.030	0.026	0.027
Acrylonitrile	0.108	0.106	0.110	0.098	0.098
MTBE	0.894	0.799	0.940	0.816	0.811
Hexane					
DIPE	1.555	1.420	1.483	1.383	1.311
Ethyl Acetate					
Vinyl Acetate	0.693	0.606	0.598	0.556	0.518
Tetrahydrofuran					
Cyclohexane	0.639	0.609	0.609	0.569	0.514
Isobutanol					
Isopropyl Acetate	0.896	0.790	0.725	0.662	0.638
n-Heptane					
n-Butanol					
Propyl Acetate					
Butyl Acetate					
1,2-Dibromoethane	0.889	0.734	0.832	0.785	0.812
1,3-Dichlorobenzene	1.938	1.562	1.746	1.745	1.586
1,4-Dichlorobenzene	2.357	1.711	1.926	1.802	1.842
1,2-Dichlorobenzene	1.917	1.539	1.587	1.604	1.579
Naphthalene	2.763	2.318	2.562	2.465	2.516
Methylnaphthalene (total)	1.282	1.226	1.271	1.195	1.290
Dimethylnaphthalene (total)	0.859	0.570	0.748	0.661	0.737
Dichlorodifluoromethane	0.401	0.358	0.467	0.428	0.360
1,1-Dichloropropene	0.546	0.426	0.499	0.461	0.453
1,2,4-Trichlorobenzene	1.299	1.088	1.235	1.231	1.245
Hexachlorobutadiene	0.924	0.807	0.906	0.895	0.869
1,4-Dioxane					
Methyl Acrylate					
1,1,1,2-Tetrachloroethane	0.541	0.468	0.545	0.505	0.510
1,2,3-Trichlorobenzene	1.220	1.054	1.203	1.164	1.169
1,2,3-Trichloropropane	1.937	1.441	1.493	1.443	1.394
1,2,4-Trimethylbenzene	3.270	2.422	2.594	2.501	2.415
1,2-Dibromo-3-chloropropane	0.444	0.356	0.404	0.389	0.397
1,3,5-Trimethylbenzene	3.380	2.464	2.496	2.509	2.433
1,3-Dichloropropane	0.935	0.790	0.921	0.826	0.852
2,2-Dichloropropane	0.497	0.407	0.468	0.435	0.420
2-Chlorotoluene	3.046	2.552	2.828	2.639	2.547

303907

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS2 Calibration Date(s): 09/29/98 09/29/98

Heated Purge: (Y/N) N Calibration Time(s): 1802 2116

LAB FILE ID: RRF5: B8233 RRF20: B8235 RRF50: B8236
RRF100: B8237 RRF200: B8238

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
4-Chlorotoluene	3.462	2.561	2.672	2.826	2.725
Bromobenzene	1.277	0.988	1.129	1.029	0.987
Bromochloromethane	0.266	0.217	0.244	0.224	0.228
Dibromomethane	0.490	0.387	0.439	0.398	0.400
Isopropylbenzene	1.198	1.382	1.116	1.090	1.124
n-Butylbenzene	3.419	2.875	2.862	3.093	3.046
n-Propylbenzene	4.586	3.708	4.175	3.965	3.758
p-Isopropyltoluene	3.090	2.579	2.819	2.768	2.724
sec-Butylbenzene	4.007	3.176	3.352	3.459	3.396
tert-Butylbenzene	3.016	2.410	2.668	2.526	2.401
Allyl chloride	0.233	0.209	0.217	0.195	0.187
Benzyl chloride	2.272	1.979	1.970	1.870	1.723
Epichlorohydrin	0.049	0.044	0.044	0.040	0.037
Isoprene	0.392	0.368	0.387	0.358	0.335
Methyl methacrylate	0.352	0.296	0.330	0.284	0.268
n-Pentane	0.062	0.056	0.066	0.060	0.052
Allyl alcohol					
Amyl Acetate					
1,2-Dichloroethane-d4 (SUR)	0.367	0.334	0.340	0.298	0.306
Toluene-d8 (SUR)	1.427	1.297	1.257	1.218	1.227
Bromofluorobenzene (SUR)	1.151	1.004	0.998	0.960	0.879

303908

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS2 Calibration Date(s): 09/29/98 09/29/98

Heated Purge: (Y/N) N Calibration Time(s): 1802 2116

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Chloromethane	AVRG	0.23042858	13.3**
Bromomethane	AVRG	0.19174834	21.8*
Vinyl Chloride	AVRG	0.20638066	11.9*
Chloroethane	AVRG	0.17854372	9.6*
Methylene Chloride	AVRG	0.39104132	22.0*
Acetone	AVRG	0.13332424	47.3*
Carbon Disulfide	AVRG	0.96361311	8.6*
Trichlorofluoromethane	AVRG	0.45188631	8.6*
1,1-Dichloroethene	AVRG	0.32337808	16.5*
1,1-Dichloroethane	AVRG	0.69419076	6.9**
trans-1,2-Dichloroethene	AVRG	0.34459158	9.8*
cis-1,2-Dichloroethene	AVRG	0.35698221	9.7*
Chloroform	AVRG	0.68518637	8.2*
1,2-Dichloroethane	AVRG	0.39882139	8.0*
2-Butanone	AVRG	0.04129029	11.6*
1,1,1-Trichloroethane	AVRG	0.46404847	10.4*
Carbon Tetrachloride	AVRG	0.43305038	7.4*
Bromodichloromethane	AVRG	0.65302566	9.9*
1,2-Dichloropropane	AVRG	0.46194026	14.0*
cis-1,3-Dichloropropene	AVRG	0.56707303	9.5*
Trichloroethene	AVRG	0.41938064	14.0*
Dibromochloromethane	AVRG	0.76804142	6.9*
1,1,2-Trichloroethane	AVRG	0.51380154	7.9*
Benzene	AVRG	0.99096285	18.1*
trans-1,3-Dichloropropene	AVRG	0.67191897	9.1*
2-Chloroethyl Vinyl Ether	AVRG	0.27989322	12.5*
Bromoform	AVRG	0.57662095	9.4**
4-Methyl-2-Pentanone	AVRG	0.42268426	6.4*
2-Hexanone	AVRG	0.38943986	11.4*
Tetrachloroethene	AVRG	0.57858781	13.0*
1,1,2,2-Tetrachloroethane	AVRG	2.20198815	21.7**
Toluene	AVRG	1.43098838	8.9*
Chlorobenzene	AVRG	1.00517903	8.0**
Ethylbenzene	AVRG	0.45349834	5.6*
Styrene	AVRG	0.89137324	5.6*
Xylene (Total)	AVRG	0.54799985	6.7*
Ethyl Ether	AVRG	0.27475068	8.0*
Acrolein	AVRG	0.03399684	6.1*
Freon TF	AVRG	0.70023444	7.6*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

303909

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS2 Calibration Date(s): 09/29/98 09/29/98

Heated Purge: (Y/N) N Calibration Time(s): 1802 2116

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Isopropanol	AVRG		
Acetonitrile	AVRG	0.02934165	11.9*
TBA	AVRG	0.02832482	8.5*
Acrylonitrile	AVRG	0.10397191	5.2*
MTBE	AVRG	0.85215570	7.3*
Hexane	AVRG		
DIPE	AVRG	1.43035234	6.5*
Ethyl Acetate	AVRG		
Vinyl Acetate	AVRG	0.59418957	11.0*
Tetrahydrofuran	AVRG		
Cyclohexane	AVRG	0.58798649	8.2*
Isobutanol	AVRG		
Isopropyl Acetate	AVRG	0.74230779	14.0*
n-Heptane	AVRG		
n-Butanol	AVRG		
Propyl Acetate	AVRG		
Butyl Acetate	AVRG		
1,2-Dibromoethane	AVRG	0.81023051	7.1*
1,3-Dichlorobenzene	AVRG	1.71535722	8.8*
1,4-Dichlorobenzene	AVRG	1.92771694	13.1*
1,2-Dichlorobenzene	AVRG	1.64542968	9.4*
Naphthalene	AVRG	2.52480338	6.4*
Methylnaphthalene (total)	AVRG	1.25293694	3.2*
Dimethylnaphthalene (total)	AVRG	0.71510722	15.0*
Dichlorodifluoromethane	AVRG	0.40288176	11.5*
1,1-Dichloropropene	AVRG	0.47702549	9.8*
1,2,4-Trichlorobenzene	AVRG	1.21953451	6.4*
Hexachlorobutadiene	AVRG	0.88032491	5.2*
1,4-Dioxane	AVRG		
Methyl Acrylate	AVRG		
1,1,1,2-Tetrachloroethane	AVRG	0.51402602	6.0*
1,2,3-Trichlorobenzene	AVRG	1.16217082	5.6*
1,2,3-Trichloropropane	AVRG	1.54176809	14.5*
1,2,4-Trimethylbenzene	AVRG	2.64054827	13.6*
1,2-Dibromo-3-chloropropane	AVRG	0.39808036	7.9*
1,3,5-Trimethylbenzene	AVRG	2.65626199	15.3*
1,3-Dichloropropane	AVRG	0.86482914	7.2*
2,2-Dichloropropane	AVRG	0.44533957	8.2*
2-Chlorotoluene	AVRG	2.72221777	7.8*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

303910

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS2 Calibration Date(s): 09/29/98 09/29/98

Heated Purge: (Y/N) N Calibration Time(s): 1802 2116

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
4-Chlorotoluene	AVRG	2.84924018	12.5*
Bromobenzene	AVRG	1.08195781	11.4*
Bromochloromethane	AVRG	0.23577134	8.2*
Dibromomethane	AVRG	0.42301538	10.0*
Isopropylbenzene	AVRG	1.18208082	10.1*
n-Butylbenzene	AVRG	3.05893623	7.4*
n-Propylbenzene	AVRG	4.03837539	8.8*
p-Isopropyltoluene	AVRG	2.79591321	6.7*
sec-Butylbenzene	AVRG	3.47785717	9.0*
tert-Butylbenzene	AVRG	2.60452902	9.8*
Allyl chloride	AVRG	0.20849278	8.7*
Benzyl chloride	AVRG	1.96266684	10.2*
Epichlorohydrin	AVRG	0.04278192	10.8*
Isoprene	AVRG	0.36817370	6.3*
Methyl methacrylate	AVRG	0.30586189	11.2*
n-Pentane	AVRG	0.05925301	9.4*
Allyl alcohol	AVRG		
Amyl Acetate	AVRG		
1,2-Dichloroethane-d4 (SUR)	AVRG	0.32913642	8.4*
Toluene-d8 (SUR)	AVRG	1.28537025	6.6*
Bromofluorobenzene (SUR)	AVRG	0.99828350	9.9*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

303911

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8233.d
Report Date: 14-Oct-98 11:20:59

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8233.d
Lab Smp Id: BSTD005 Client Smp ID: BSTD005
Inj Date : 29-SEP-98 18:02:00
Operator : VOAMS 3 Inst ID: VOAMS2.i
Smp Info : BSTD005
Misc Info :
Comment :
Method : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/new8260HIGH.m
Meth Date : 14-Oct-98 11:20:44 davidl Quant Type: ISTD
Cal Date : 29-SEP-98 18:02:00 Cal File: b8233.d
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
90 Dichlorodifluoromethane	85	4.189	4.189	(0.378)	177102	5.0	5.0
1 Chloromethane	50	4.618	4.618	(0.417)	87900	5.0	4.3(a)
4 Vinyl Chloride	62	4.840	4.840	(0.437)	83333	5.0	4.6(a)
3 Bromomethane	94	5.491	5.491	(0.496)	98807	5.0	5.8
5 Chloroethane	64	5.684	5.684	(0.513)	81153	5.0	5.1
9 Trichlorofluoromethane	101	6.172	6.172	(0.558)	198824	5.0	5.0
121 n-Pentane	72	6.290	6.290	(0.568)	27307	5.0	5.2
46 Ethyl Ether	59	6.646	6.646	(0.600)	133564	5.0	5.5
119 Isoprene	67	6.705	6.705	(0.606)	173327	5.0	5.3
47 Acrolein	56	6.868	6.868	(0.620)	330760	100	110
48 Freon TF	101	7.030	7.030	(0.635)	329608	5.0	5.3
10 1,1-Dichloroethene	96	7.060	7.060	(0.638)	73691	2.0	2.6
7 Acetone	43	7.119	7.119	(0.643)	107391	5.0	9.1(M)
8 Carbon Disulfide	76	7.474	7.474	(0.675)	423496	5.0	5.0
116 Allyl chloride	76	7.622	7.622	(0.689)	103104	5.0	5.6(M)
50 Acetonitrile	41	7.607	7.607	(0.687)	307749	100	120

303912

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8233.d
Report Date: 14-Oct-98 11:20:59

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 Methylene Chloride	84	7.800	7.800	(0.705)	143065	3.0	4.1
	51 TBA	59	7.918	7.918	(0.715)	280607	100	110
	52 Acrylonitrile	53	8.140	8.140	(0.735)	476741	50	52
	53 MTBE	73	8.214	8.214	(0.742)	395034	5.0	5.2
	12 trans-1,2-Dichloroethene	96	8.229	8.229	(0.743)	175298	5.0	5.8
	11 1,1-Dichloroethane	63	8.821	8.821	(0.797)	335337	5.0	5.5
	57 Vinyl Acetate	43	8.851	8.851	(0.799)	306067	5.0	5.8(T)
	55 DIPE	45	8.851	8.851	(0.799)	686511	5.0	5.4
	54 Hexane	56	7.948	7.948	(0.718)	3965	5.0	(a)
	18 2-Butanone	72	9.576	9.576	(0.865)	21005	5.0	5.8
	13 cis-1,2-Dichloroethene	96	9.590	9.590	(0.866)	173506	5.0	5.7
	104 2,2-Dichloropropane	77	9.605	9.605	(0.868)	219615	5.0	5.6
	108 Bromochloromethane	128	9.916	9.916	(0.896)	117324	5.0	5.6
	15 Chloroform	83	9.990	9.990	(0.902)	334199	5.0	5.5
	96 Methyl Acrylate	55	8.747	8.747	(0.790)	23462	5.0	(a)
	11 1,1,1-Trichloroethane	97	10.286	10.286	(0.929)	240592	5.0	5.9(M)
	59 Cyclohexane	56	10.389	10.389	(0.939)	282233	5.0	5.4
	32 1,1-Dichloropropene	75	10.478	10.478	(0.947)	240920	5.0	5.7
	21 Carbon Tetrachloride	117	10.508	10.508	(0.949)	84093	2.0	2.2
S	16 1,2-Dichloroethane-d4 (SUR)	65	10.641	10.641	(0.961)	162182	5.0	5.6
	63 n-Butanol	56	11.070	11.070	(1.000)	28195	5.0	(a)
	61 Isopropyl Acetate	43	10.671	10.671	(0.964)	791314	10	12
	17 1,2-Dichloroethane	62	10.745	10.745	(0.971)	78951	2.0	2.2
	28 Benzene	78	10.759	10.759	(0.972)	114861	1.0	1.3
*	19 Fluorobenzene	96	11.070	11.070	(1.000)	4415802	50	
	25 Trichloroethene	95	11.529	11.529	(1.041)	45454	1.0	1.2
	23 1,2-Dichloropropane	63	11.810	11.810	(1.067)	50391	1.0	1.2
	120 Methyl methacrylate	69	11.825	11.825	(1.068)	155312	5.0	5.7
	109 Dibromomethane	93	11.958	11.958	(1.080)	216392	5.0	5.8
	95 1,4-Dioxane	88	11.928	11.928	(1.078)	345494	1000	(a)
	22 Bromodichloromethane	83	12.106	12.106	(1.094)	63791	1.0	1.1
	30 2-Chloroethyl Vinyl Ether	63	12.372	12.372	(1.118)	101736	5.0	4.9(a)
	118 Epichlorohydrin	57	12.491	12.491	(1.128)	434469	100	110
	24 cis-1,3-Dichloropropene	75	12.609	12.609	(1.139)	285718	5.0	5.7
	33 4-Methyl-2-Pentanone	43	12.728	12.728	(1.150)	205367	5.0	5.5
	60 Isobutanol	41	13.482	13.482	(0.921)	1033	5.0	(a)
S	37 Toluene-d8 (SUR)	98	12.964	12.964	(0.886)	452051	5.0	5.6
	38 Toluene	91	13.038	13.038	(0.891)	519617	5.0	5.7
	29 trans-1,3-Dichloropropene	75	13.231	13.231	(0.904)	241369	5.0	5.7
	27 1,1,2-Trichloroethane	83	13.467	13.467	(0.920)	105014	3.0	3.2(M)
	103 1,3-Dichloropropane	76	13.675	13.675	(0.934)	296151	5.0	5.4
	35 Tetrachloroethene	166	13.704	13.704	(0.936)	44916	1.0	1.2
	34 2-Hexanone	43	13.689	13.689	(0.935)	119335	5.0	4.8(aH)
	26 Dibromochloromethane	129	13.971	13.971	(0.955)	249780	5.0	5.1
	66 1,2-Dibromoethane	107	14.148	14.148	(0.967)	281433	5.0	5.5
*	32 Chlorobenzene-d5	117	14.636	14.636	(1.000)	3167047	50	
	39 Chlorobenzene	112	14.666	14.666	(1.002)	360178	5.0	5.6

303913

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8233.d
Report Date: 14-Oct-98 11:21:00

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	40 Ethylbenzene	106	14.740	14.740	(1.007)	125065	4.0	4.4
	43 m+p-Xylene	106	14.853	14.853	(1.015)	389070	10	11
	97 1,1,1,2-Tetrachloroethane	131	14.740	14.740	(1.007)	171214	5.0	5.2
	44 o-Xylene	106	15.317	15.317	(1.046)	184379	5.0	5.4
	42 Styrene	104	15.317	15.317	(1.046)	301401	5.0	5.3
	31 Bromoform	173	15.598	15.598	(1.066)	133857	4.0	3.7(a)
	110 Isopropylbenzene	105	15.687	15.687	(1.072)	379591	5.0	5.1
$	41 Bromofluorobenzene (SUR)	174	15.909	15.909	(0.926)	160438	5.0	5.8
	36 1,1,2,2-Tetrachloroethane	83	15.983	15.983	(0.930)	84882	1.0	1.4
	123 Amyl Acetate	43	12.728	12.728	(0.870)	205367	10	(a)
	99 1,2,3-Trichloropropane	75	16.072	16.072	(0.935)	270121	5.0	5.3
	107 Bromobenzene	156	16.116	16.116	(0.938)	178064	5.0	5.9
	112 n-Propylbenzene	91	16.131	16.131	(0.939)	639325	5.0	5.7
	105 2-Chlorotoluene	91	16.279	16.279	(0.947)	424704	5.0	5.6
	102 1,3,5-Trimethylbenzene	105	16.279	16.279	(0.947)	471269	5.0	6.4
	106 4-Chlorotoluene	91	16.338	16.338	(0.950)	480649	5.0	5.1
	115 tert-Butylbenzene	119	16.679	16.679	(0.971)	420485	5.0	5.8
	100 1,2,4-Trimethylbenzene	105	16.723	16.723	(0.973)	455927	5.0	6.2
	114 sec-Butylbenzene	105	16.915	16.915	(0.984)	558621	5.0	5.8
	113 p-Isopropyltoluene	119	17.034	17.034	(0.991)	430753	5.0	5.5
	67 1,3-Dichlorobenzene	146	17.122	17.122	(0.997)	270203	5.0	5.6
*	91 1,4-Dichlorobenzene-d4	152	17.182	17.182	(1.000)	1394227	50	
	68 1,4-Dichlorobenzene	146	17.211	17.211	(1.002)	328655	5.0	6.1
	117 Benzyl chloride	91	17.330	17.330	(1.009)	316737	5.0	5.8
	111 n-Butylbenzene	91	17.492	17.492	(1.018)	476635	5.0	5.6
	69 1,2-Dichlorobenzene	146	17.655	17.655	(1.028)	267338	5.0	5.9
	101 1,2-Dibromo-3-chloropropane	75	18.528	18.528	(1.078)	61908	5.0	5.6
	93 1,2,4-Trichlorobenzene	180	19.520	19.520	(1.136)	181036	5.0	5.3
	94 Hexachlorobutadiene	225	19.653	19.653	(1.144)	128861	5.0	5.2
	70 Naphthalene	128	19.875	19.875	(1.157)	385187	5.0	5.5
	98 1,2,3-Trichlorobenzene	180	20.171	20.171	(1.174)	170102	5.0	5.2
	71 Methylnaphthalene (total)	142	[illegible]	[illegible]	[illegible]	178742	[illegible]	[illegible]
	72 Dimethylnaphthalene (total)	156	23.515	23.515	(1.369)	119724	5.0	6.0
M	14 1,2-Dichloroethene (total)	100				353804	10	11
M	45 Xylene (Total)	100				573449	15	16

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

303914

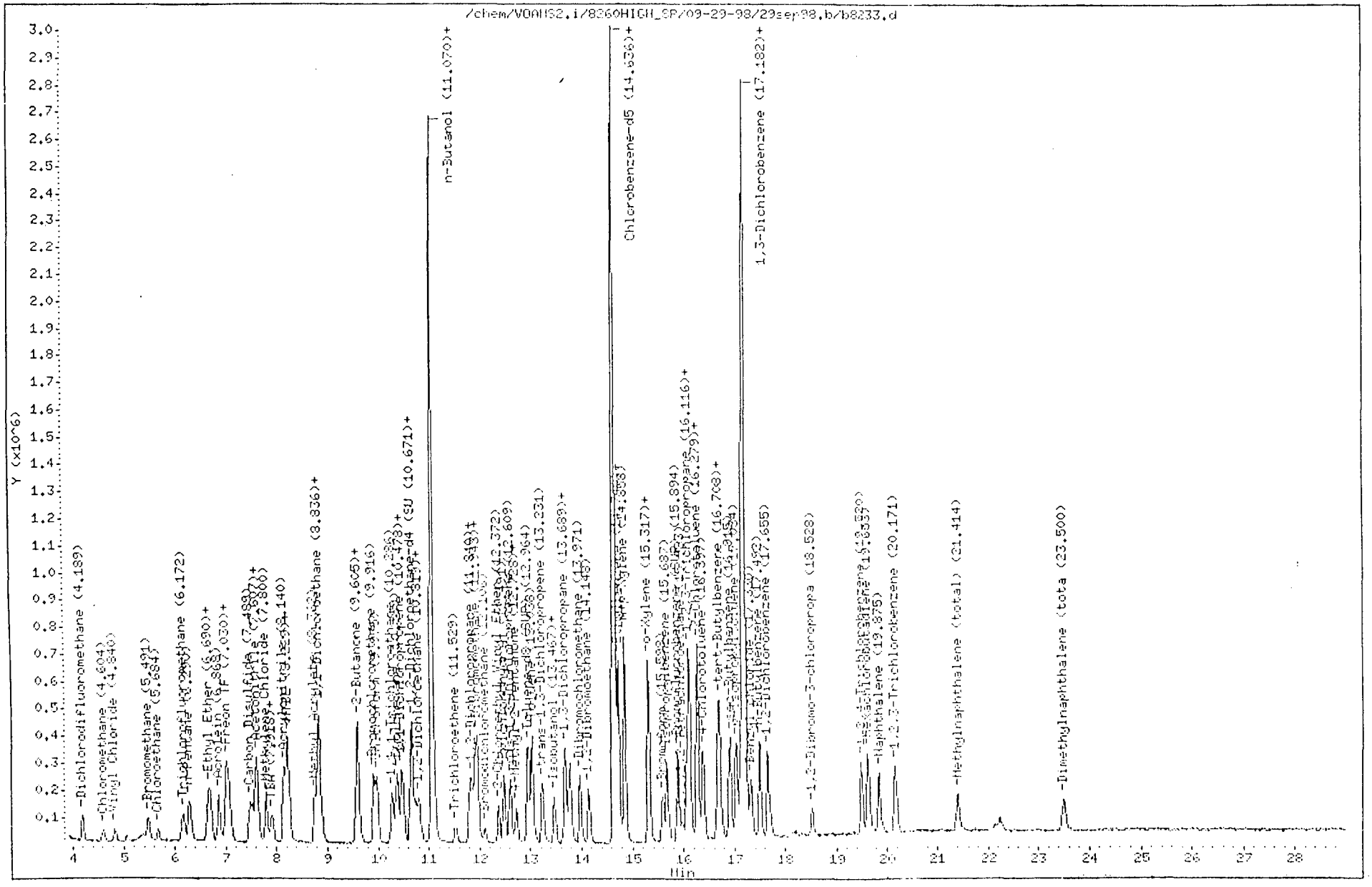
Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8233.d
Date : 29-SEP-98 18:02:00
Client ID: BSTD005
Sample Info: BSTD005

Column phase: DB624

Instrument: VOAMS2.i

Operator: VOAMS 3
Column diameter: 0.53

303915



Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8235.d
Report Date: 14-Oct-98 11:21:48

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8235.d
Lab Smp Id: BSTD020 Client Smp ID: BSTD020
Inj Date : 29-SEP-98 19:20:00
Operator : VOAMS 3 Inst ID: VOAMS2.i
Smp Info : BSTD020
Misc Info :
Comment :
Method : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/new8260HIGH.m
Meth Date : 14-Oct-98 11:21:35 davidl Quant Type: ISTD
Cal Date : 29-SEP-98 18:02:00 Cal File: b8233.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	4.190	4.190	(0.378)	502763	20	18
1 Chloromethane	50	4.634	4.634	(0.418)	290256	20	18
4 Vinyl Chloride	62	4.856	4.856	(0.438)	264925	20	18
3 Bromomethane	94	5.492	5.492	(0.495)	249230	20	18
5 Chloroethane	64	5.685	5.685	(0.513)	226788	20	18
9 Trichlorofluoromethane	101	6.173	6.173	(0.557)	590828	20	19
121 n-Pentane	72	6.291	6.291	(0.568)	79397	20	19
46 Ethyl Ether	59	6.661	6.661	(0.601)	379248	20	20
119 Isoprene	67	6.706	6.706	(0.605)	517019	20	20
47 Acrolein	56	6.868	6.868	(0.620)	476658	200	200
48 Freon TF	101	7.031	7.031	(0.634)	988200	20	20
10 1,1-Dichloroethene	96	7.061	7.061	(0.637)	418430	20	18
7 Acetone	43	7.120	7.120	(0.642)	182300	20	19
8 Carbon Disulfide	76	7.490	7.490	(0.676)	1220134	20	18
116 Allyl chloride	76	7.623	7.623	(0.688)	293432	20	20
50 Acetonitrile	41	7.549	7.549	(0.681)	744570	400	360

303916

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8235.d
Report Date: 14-Oct-98 11:21:48

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 Methylene Chloride	84	7.815	7.815	(0.705)	477947	20	17
	51 TBA	59	7.934	7.934	(0.716)	760885	400	380
	52 Acrylonitrile	53	8.156	8.156	(0.736)	741649	100	100
	53 MTBE	73	8.230	8.230	(0.742)	1121647	20	19
	12 trans-1,2-Dichloroethene	96	8.245	8.245	(0.744)	441171	20	18
	122 Allyl alcohol	57	8.763	8.763	(0.790)	702642	2000	(a)
	11 1,1-Dichloroethane	63	8.822	8.822	(0.796)	900051	20	18
	57 Vinyl Acetate	43	8.866	8.866	(0.800)	850990	20	20(T)
	55 DIPE	45	8.866	8.866	(0.800)	1993239	20	20
	54 Hexane	56	7.919	7.919	(0.714)	24313	20	(a)
	18 2-Butanone	72	9.576	[illegible]	[illegible]	[illegible]	20	[illegible]
	13 cis-1,2-Dichloroethene	96	9.606	9.606	(0.867)	450909	20	18
	104 2,2-Dichloropropane	[illegible]	9.621	9.621	(0.868)	571438	20	18
	108 Bromochloromethane	128	9.932	9.932	(0.896)	304147	20	18
	15 Chloroform	83	9.991	9.991	(0.901)	886171	20	18
	96 Methyl Acrylate	55	8.743	8.743	(0.790)	18940	20	(a)
	20 1,1,1-Trichloroethane	97	10.301	10.301	(0.929)	587470	20	18(M)
	59 Cyclohexane	56	10.390	10.390	(0.937)	854807	20	21
	92 1,1-Dichloropropene	75	10.494	10.494	(0.947)	597330	20	18
	21 Carbon Tetrachloride	117	10.523	10.523	(0.949)	551108	20	19
$	16 1,2-Dichloroethane-d4 (SUR)	65	10.657	10.657	(0.961)	468709	20	20
	63 n-Butanol	56	11.071	11.071	(0.999)	20589	2000	(a)
	61 Isopropyl Acetate	43	10.686	10.686	(0.964)	2217607	40	42
	17 1,2-Dichloroethane	62	10.760	10.760	(0.971)	513581	20	18
	28 Benzene	78	10.775	10.775	(0.972)	1208638	20	17
*	19 Fluorobenzene	96	11.086	11.086	(1.000)	3508338	50	
	25 Trichloroethene	95	11.544	11.544	(1.041)	518309	20	18
	23 1,2-Dichloropropane	63	11.811	11.811	(1.065)	568513	20	18
	120 Methyl methacrylate	69	11.826	11.826	(1.067)	415809	20	19
	109 Dibromomethane	93	11.974	11.974	(1.080)	543709	20	18
	95 1,4-Dioxane	88	11.944	11.944	(1.077)	585353	2000	(a)
	22 Bromodichloromethane	83	12.122	12.122	(1.093)	789754	20	17
	30 2-Chloroethyl Vinyl Ether	63	12.388	12.388	(1.117)	334547	20	17
	118 Epichlorohydrin	57	12.492	12.492	(1.127)	1243570	400	410
	24 cis-1,3-Dichloropropene	75	12.625	12.625	(1.139)	716023	20	19
	33 4-Methyl-2-Pentanone	43	12.743	12.743	(1.149)	571494	20	19
	60 Isobutanol	41	13.468	13.468	(0.919)	9283	2000	(a)
$	37 Toluene-d8 (SUR)	98	12.965	12.965	(0.885)	1278317	20	20
	38 Toluene	91	13.054	13.054	(0.891)	1288810	20	18
	29 trans-1,3-Dichloropropene	75	13.246	13.246	(0.904)	586040	20	18
	27 1,1,2-Trichloroethane	83	13.483	13.483	(0.920)	449360	20	18(M)
	103 1,3-Dichloropropane	76	13.690	13.690	(0.934)	778723	20	18
	35 Tetrachloroethene	166	13.720	13.720	(0.936)	511288	20	18
	34 2-Hexanone	43	13.690	13.690	(0.934)	356458	20	18
	26 Dibromochloromethane	129	13.986	13.986	(0.955)	665764	20	18
	66 1,2-Dibromoethane	107	14.164	14.164	(0.967)	723059	20	18
*	32 Chlorobenzene-d5	117	14.652	14.652	(1.000)	2463621	50	

303917

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8235.d
Report Date: 14-Oct-98 11:21:48

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	
	39 Chlorobenzene	112	14.682	14.682	(1.002)	906827	20	18	
	40 Ethylbenzene	106	14.756	14.756	(1.007)	429544	20	19	
	43 m+p-Xylene	106	14.874	14.874	(1.015)	996008	40	37	
	97 1,1,1,2-Tetrachloroethane	131	14.741	14.741	(1.006)	461675	20	18	
	44 o-Xylene	106	15.318	15.318	(1.045)	495928	20	19	
	42 Styrene	104	15.333	15.333	(1.046)	812029	20	18	
	31 Bromoform	173	15.599	15.599	(1.065)	502201	20	18	
	110 Isopropylbenzene	105	15.703	15.703	(1.072)	1362084	20	23	
S	41 Bromofluorobenzene (SUR)	174	15.910	15.910	(0.925)	480998	20	20	
	36 1,1,2,2-Tetrachloroethane	83	15.984	15.984	(0.929)	909334	20	17	
	123 Amyl Acetate	43	[illegible]	[illegible]	[illegible]	[illegible]	40	[illegible]	a
	99 1,2,3-Trichloropropane	75	16.073	16.073	(0.935)	690399	20	19	
	107 Bromobenzene	156	16.117	16.117	(0.937)	473436	20	18	
	112 n-Propylbenzene	91	16.132	16.132	0.938	1776626	20	18	
	105 2-Chlorotoluene	91	16.295	16.295	0.948	1222636	20	19	
	102 1,3,5-Trimethylbenzene	105	[illegible]	[illegible]	[illegible]	[illegible]	20	18	
	106 4-Chlorotoluene	91	16.398	16.398	(0.954)	1227126	20	18	
	115 tert-Butylbenzene	119	16.694	16.694	0.971	1154964	20	18	
	100 1,2,4-Trimethylbenzene	105	16.724	16.724	(0.972)	1160768	20	18	
	114 sec-Butylbenzene	105	16.916	16.916	0.984	1521780	20	18	
	113 p-Isopropyltoluene	119	17.049	17.049	(0.991)	1235798	20	16	
	67 1,3-Dichlorobenzene	146	17.138	17.138	(0.997)	748449	20	18	
*	91 1,4-Dichlorobenzene-d4	152	17.197	17.197	(1.000)	1197944	50		
	68 1,4-Dichlorobenzene	146	17.227	17.227	(1.002)	820049	20	18	
	117 Benzyl chloride	91	17.330	17.330	(1.008)	948101	20	20	
	111 n-Butylbenzene	91	17.508	17.508	(1.018)	1377536	20	19	
	69 1,2-Dichlorobenzene	146	17.671	17.671	1.028	[illegible]	[illegible]	19	
	101 1,2-Dibromo-3-chloropropane	75	18.529	18.529	(1.077)	170824	20	18	
	93 1,2,4-Trichlorobenzene	180	19.520	19.520	1.135	521325	20	18	
	94 Hexachlorobutadiene	225	19.654	19.654	(1.143)	386704	20	18	
	70 Naphthalene	128	19.876	19.876	(1.156)	1110935	20	18	
	98 1,2,3-Trichlorobenzene	180	[illegible]	[illegible]	1.174	[illegible]	20	18	
	71 Methylnaphthalene (total)	142	21.415	21.415	(1.245)	587518	20	20	
	72 Dimethylnaphthalene (total)	156	23.516	23.516	1.367	873337	20	16	
M	14 1,2-Dichloroethene (total)	100				892030	40	36	
M	45 Xylene (Total)	100				1491936	60	55	

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

303918

Data File: /chem/VOAHS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8235.d
Date : 29-SEP-98 19:20:00
Client ID: BSTD020
Sample Info: BSTD020

Instrument: VOAHS2.i

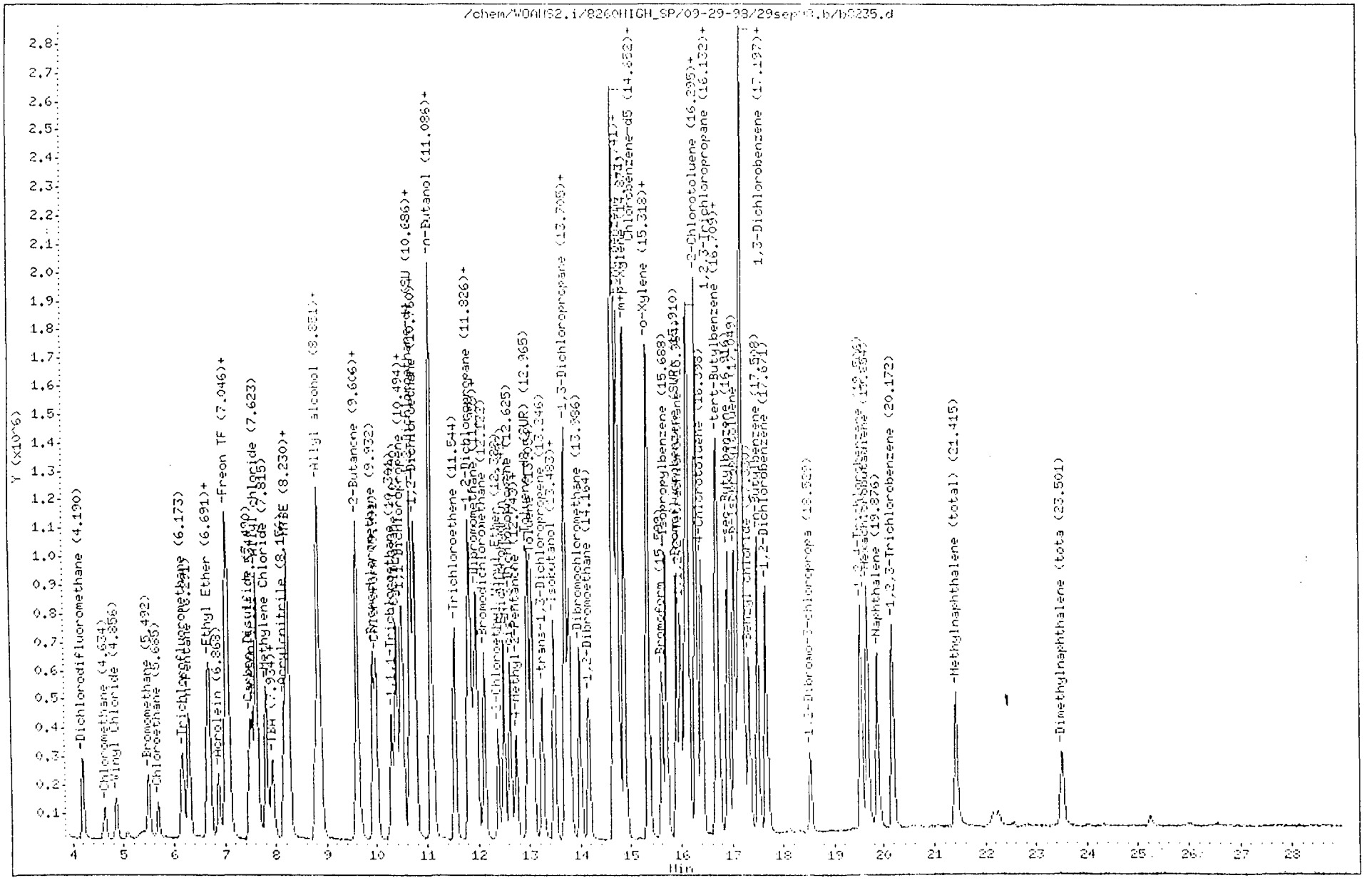
Operator: VOAHS 3

Column phase: DB624

Column diameter: 0.53

303919

382



Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8236.d
Report Date: 14-Oct-98 11:22:08

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8236.d
Lab Smp Id: BSTD050 Client Smp ID: BSTD050
Inj Date : 29-SEP-98 19:59:00
Operator : VOAMS 3 Inst ID: VOAMS2.i
Smp Info : BSTD050
Misc Info :
Comment :
Method : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/new8260HIGH.m
Meth Date : 14-Oct-98 11:21:53 davidl Quant Type: ISTD
Cal Date : 29-SEP-98 18:02:00 Cal File: b8233.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
30 Dichlorodifluoromethane	85	4.219	4.219	(0.489)	1739493	50	58
1 Chloromethane	50	4.633	4.633	(0.482)	1049764	50	60(M)
4 Vinyl Chloride	62	4.870	4.870	(0.506)	932297	50	60(M)
3 Bromomethane	94	5.506	5.506	(0.572)	919176	50	63(M)
5 Chloroethane	64	5.698	5.698	(0.592)	766483	50	57(M)
9 Trichlorofluoromethane	101	6.187	6.187	(0.643)	1928777	50	56(M)
121 n-Pentane	72	6.320	6.320	(0.657)	251945	50	56(M)
46 Ethyl Ether	59	6.675	6.675	(0.694)	1098892	50	53(M)
119 Isoprene	67	6.734	6.734	(0.700)	1464805	50	52(M)
47 Acrolein	56	6.897	6.897	(0.717)	760595	300	300(M)
48 Freon TF	101	7.060	7.060	(0.734)	2822201	50	53(M)
10 1,1-Dichloroethene	96	7.089	7.089	(0.737)	1203260	50	49(M)
7 Acetone	43	7.149	7.149	(0.743)	388817	50	38(M)
8 Carbon Disulfide	76	7.519	7.519	(0.678)	4150583	50	57(M)
116 Allyl chloride	76	7.652	7.652	(0.690)	823151	50	52(M)
50 Acetonitrile	41	7.563	7.563	(0.682)	2325572	1000	1000(MH)

303920

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8236.d
Report Date: 14-Oct-98 11:22:08

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	6 Methylene Chloride	84	7.829	7.829	(0.706)	1482297	50	50(M)
	51 TBA	59	7.948	7.948	(0.717)	2265054	1000	1000(M)
	52 Acrylonitrile	53	8.170	8.170	(0.737)	1245363	150	160(MH)
	53 MTBE	73	8.244	8.244	(0.744)	3559863	50	55(M)
	12 trans-1,2-Dichloroethene	96	8.258	8.258	(0.745)	1363751	50	52(M)
	122 Allyl alcohol	57	8.776	8.776	(0.792)	1136201	3000	(aM)
	11 1,1-Dichloroethane	63	8.850	8.850	(0.798)	2750846	50	52(M)
	57 Vinyl Acetate	43	8.880	8.880	(0.801)	2263302	50	50(MH)
	55 DIPE	45	8.880	8.880	(0.801)	5615608	50	52(M)
	18 2-Butanone	72	9.590	9.590	(0.865)	170964	50	55(M)
	13 cis-1,2-Dichloroethene	96	9.620	9.620	(0.868)	1448658	50	53(M)
	104 2,2-Dichloropropane	77	9.635	9.635	(0.869)	1770286	50	52(M)
	108 Bromochloromethane	128	9.945	9.945	(0.897)	922962	50	50(M)
	15 Chloroform	83	10.005	10.005	(0.903)	2777135	50	54(M)
	20 1,1,1-Trichloroethane	97	10.301	10.301	(0.929)	1771746	50	50(M)
	59 Cyclohexane	56	10.404	10.404	(0.939)	2304556	50	52(M)
	92 1,1-Dichloropropene	75	10.493	10.493	(0.947)	1891057	50	52(M)
	21 Carbon Tetrachloride	117	10.537	10.537	(0.951)	1712279	50	52(M)
S	16 1,2-Dichloroethane-d4 (SUR)	65	10.670	10.670	(1.109)	1287874	50	52(M)
	61 Isopropyl Acetate	43	10.700	10.700	(0.965)	5487955	100	98(M)
	17 1,2-Dichloroethane	62	10.759	10.759	(0.971)	1563614	50	52(M)
	28 Benzene	78	10.774	10.774	(0.972)	5740774	50	50(M)
*	19 Fluorobenzene	96	11.085	11.085	(1.000)	3786642	50	(M)
	25 Trichloroethene	95	11.544	11.544	(1.041)	1654892	50	52(M)
	23 1,2-Dichloropropane	63	11.825	11.825	(1.067)	1765783	50	50(MH)
	120 Methyl methacrylate	69	11.839	11.839	(1.068)	1247704	50	54(M)
	109 Dibromomethane	93	11.973	11.973	(1.080)	1664063	50	52(M)
	95 1,4-Dioxane	88	11.943	11.943	(1.077)	911439	3000	(aM)
	22 Bromodichloromethane	83	12.121	12.121	(1.093)	2706517	50	55(TM)
	30 2-Chloroethyl Vinyl Ether	63	12.387	12.387	(1.117)	1270321	50	60(M)
	118 Epichlorohydrin	57	12.505	12.505	(1.128)	3302559	1000	1000(M)
	24 cis-1,3-Dichloropropene	75	12.624	12.624	(1.139)	3249459	50	52(M)
	33 4-Methyl-2-Pentanone	43	12.742	12.742	(1.149)	1641546	50	51(M)
S	37 Toluene-d8 (SUR)	98	12.979	12.979	(0.886)	3477218	50	49(M)
	38 Toluene	91	13.053	13.053	(0.891)	3968365	50	50(M)
	29 trans-1,3-Dichloropropene	75	13.245	13.245	(0.904)	1872877	50	50(M)
	27 1,1,2-Trichloroethane	83	13.482	13.482	(0.920)	1526163	50	54(M)
	103 1,3-Dichloropropane	76	13.689	13.689	(0.934)	2548268	50	53(M)
	35 Tetrachloroethene	166	13.719	13.719	(0.936)	1568388	50	49
	34 2-Hexanone	43	13.689	13.689	(0.934)	1076986	50	50(M)
	26 Dibromochloromethane	129	14.000	14.000	(0.956)	2195610	50	52(M)
	66 1,2-Dibromoethane	107	14.163	14.163	(0.967)	2300650	50	51
*	32 Chlorobenzene-d5	117	14.651	14.651	(1.000)	2766532	50	(M)
	39 Chlorobenzene	112	14.681	14.681	(1.002)	2779398	50	50(M)
	40 Ethylbenzene	106	14.755	14.755	(1.007)	1282017	50	51(H)
	43 m+p-Xylene	106	14.873	14.873	(1.015)	3101505	100	100(H)
	97 1,1,1,2-Tetrachloroethane	131	14.740	14.740	(1.006)	1508317	50	53(M)

303921

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8236.d
Report Date: 14-Oct-98 11:22:08

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
44 o-Xylene	106	15.332	15.332	(1.046)	1531367	50	51(H)
42 Styrene	104	15.332	15.332	(1.046)	2566342	50	52(M)
31 Bromoform	173	15.613	15.613	(1.066)	1728422	50	54
110 Isopropylbenzene	105	15.702	15.702	(1.072)	3086292	50	47
$ 41 Bromofluorobenzene (SUR)	174	15.909	15.909	(0.925)	1328678	50	50(M)
36 1,1,2,2-Tetrachloroethane	83	15.998	15.998	(0.930)	2804802	50	48(M)
99 1,2,3-Trichloropropane	75	16.072	16.072	(0.935)	1988183	50	48(M)
107 Bromobenzene	156	16.131	16.131	(0.938)	1502833	50	52(M)
112 n-Propylbenzene	91	16.146	16.146	(0.939)	5558367	50	52(M)
105 2-Chlorotoluene	91	16.294	16.294	(0.948)	3764407	50	52(M)
102 1,3,5-Trimethylbenzene	105	16.294	16.294	(0.948)	3332793	50	47(M)
106 4-Chlorotoluene	91	16.397	16.397	(0.954)	3557288	50	47(M)
115 tert-Butylbenzene	119	16.693	16.693	(0.971)	3532516	50	51(M)
100 1,2,4-Trimethylbenzene	105	16.723	16.723	(0.972)	3453786	50	49(M)
114 sec-Butylbenzene	105	16.930	16.930	(0.985)	4462001	50	48(M)
113 p-Isopropyltoluene	119	17.048	17.048	(0.991)	3752239	50	50(M)
67 1,3-Dichlorobenzene	146	17.137	17.137	(0.997)	2324125	50	51(M)
* 91 1,4-Dichlorobenzene-d4	152	17.196	17.196	(1.000)	1331244	50	(M)
68 1,4-Dichlorobenzene	146	17.226	17.226	(1.002)	2563505	50	50(M)
117 Benzyl chloride	91	17.344	17.344	(1.009)	2622954	50	50(M)
111 n-Butylbenzene	91	17.507	17.507	(1.018)	3809760	50	47(M)
69 1,2-Dichlorobenzene	146	17.670	17.670	(1.028)	2112850	50	48(M)
101 1,2-Dibromo-3-chloropropane	75	18.528	18.528	(1.077)	537933	50	51(M)
93 1,2,4-Trichlorobenzene	180	19.534	19.534	(1.136)	1644518	50	51(M)
94 Hexachlorobutadiene	225	19.668	19.668	(1.144)	1205491	50	51(M)
70 Naphthalene	128	19.875	19.875	(1.156)	3410513	50	51(M)
98 1,2,3-Trichlorobenzene	180	20.185	20.185	(1.174)	1601633	50	51(M)
71 Methylnaphthalene (total)	142	21.414	21.414	(1.245)	1692661	50	51(M)
72 Dimethylnaphthalene (total)	156	23.515	23.515	(1.367)	996356	50	52(M)
M 14 1,2-Dichloroethene (total)	100				2609409	100	100
M 45 Xylene (Total)	100				4632872	150	150

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

303922

Data File: /chem/VOAHS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8236.d
Date : 29-SEP-98 19:59:00
Client ID: BSTD050
Sample Info: BSTD050

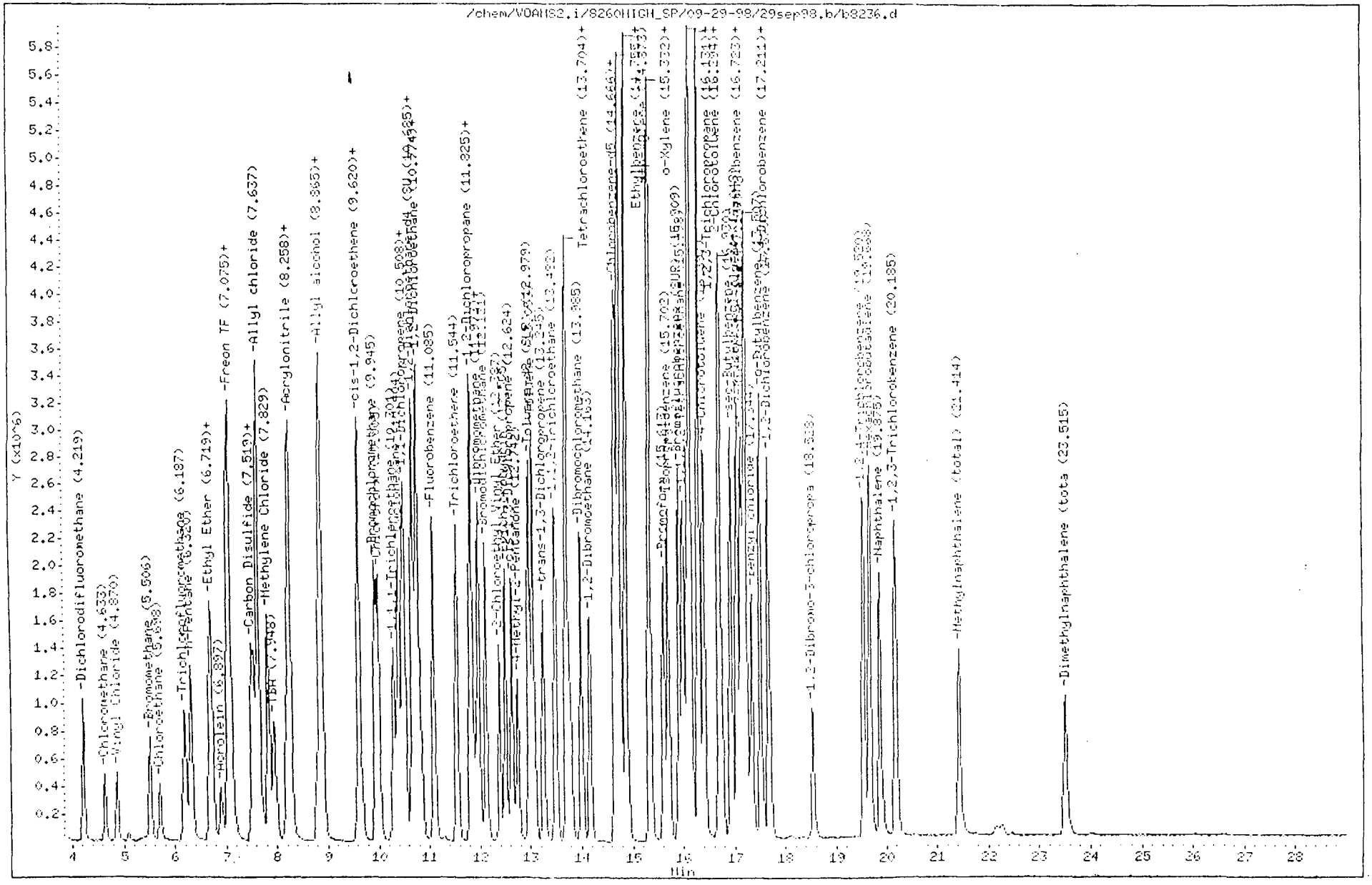
Column phase: DB624

Instrument: VOAHS2.i

Operator: VOAHS 3

Column diameter: 0.53

303923



386

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8237.d
Report Date: 14-Oct-98 11:22:28

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8237.d
Lab Smp Id: BSTD100 Client Smp ID: BSTD100
Inj Date : 29-SEP-98 20:38:00
Operator : VOAMS 3 Inst ID: VOAMS2.i
Smp Info : BSTD100
Misc Info :
Comment :
Method : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/new8260HIGH.m
Meth Date : 14-Oct-98 11:22:12 davidl Quant Type: ISTD
Cal Date : 29-SEP-98 18:02:00 Cal File: b8233.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	4.219	4.219	(0.381)	3575715	100	110
1 Chloromethane	50	4.633	4.633	(0.418)	1965001	100	100
4 Vinyl Chloride	62	4.870	4.870	(0.439)	1788770	100	100
3 Bromomethane	94	5.506	5.506	(0.497)	1484702	100	93
5 Chloroethane	64	5.699	5.699	(0.514)	1527595	100	100
9 Trichlorofluoromethane	101	6.187	6.187	(0.558)	3902102	100	100
121 n-Pentane	72	6.320	6.320	(0.570)	498452	100	100
46 Ethyl Ether	59	6.690	6.690	(0.604)	2208858	100	96
119 Isoprene	67	6.720	6.720	(0.606)	2991336	100	97
47 Acrolein	56	6.897	6.897	(0.622)	1106901	400	390
48 Freon TF	101	7.060	7.060	(0.637)	5768979	100	98
10 1,1-Dichloroethene	96	7.090	7.090	(0.640)	2438076	100	90
7 Acetone	43	7.149	7.149	(0.645)	799212	100	72 (M)
8 Carbon Disulfide	76	7.504	7.504	(0.677)	7838294	100	97
49 Isopropanol	45	5.462	5.462	(0.493)	7911	4000	(a)
116 Allyl chloride	76	7.652	7.652	(0.690)	1631901	100	94

303924

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8237.d
Report Date: 14-Oct-98 11:22:28

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
50 Acetonitrile	41	7.578	7.578	(0.684)	4480465	2000	1800
6 Methylene Chloride	84	7.830	7.830	(0.706)	2865528	100	83
51 TBA	59	7.963	7.963	(0.718)	4378160	2000	1800
52 Acrylonitrile	53	8.185	8.185	(0.738)	1645665	200	190
53 MTBE	73	8.244	8.244	(0.744)	6819122	100	96
12 trans-1,2-Dichloroethene	96	8.259	8.259	(0.745)	2721501	100	94
122 Allyl alcohol	57	8.792	8.792	(0.793)	1498531	4000	(a)
11 1,1-Dichloroethane	63	8.851	8.851	(0.798)	5591873	100	96
57 Vinyl Acetate	43	8.880	8.880	(0.801)	4647268	100	94
55 DIPE	45	8.880	8.880	(0.801)	11560788	100	97
58 Tetrahydrofuran	42	7.652	7.652	(0.690)	1447728	100	(a)
54 Hexane	56	7.963	7.963	(0.718)	117513	100	(a)
18 2-Butanone	72	9.591	9.591	(0.865)	308452	100	89
13 cis-1,2-Dichloroethene	96	9.620	9.620	(0.868)	2816425	100	94
104 2,2-Dichloropropane	77	9.635	9.635	(0.869)	3633604	100	98
113 Bromochloromethane	128	9.941	9.946	(0.897)	1674826	100	98
19 Chloroform	83	10.005	10.005	(0.903)	5427807	100	95
96 Methyl Acrylate	55	8.792	8.792	(0.793)	80804	100	(a)
20 1,1,1-Trichloroethane	97	10.316	10.316	(0.931)	3697370	100	95(M)
59 Cyclohexane	56	10.404	10.404	(0.939)	4758983	100	97
92 1,1-Dichloropropene	75	10.508	10.508	(0.948)	3856410	100	97
21 Carbon Tetrachloride	117	10.538	10.538	(0.951)	3559183	100	98
$ 16 1,2-Dichloroethane-d4 (SUR)	65	10.671	10.671	(0.963)	2491706	100	90
63 n-Butanol	56	11.100	11.100	(1.001)	28644	4000	(a)
61 Isopropyl Acetate	43	10.700	10.700	(0.965)	11073680	200	180
17 1,2-Dichloroethane	62	10.760	10.760	(0.971)	3186769	100	96
23 Benzene	78	10.774	10.774	(0.972)	7568031	100	91
* 19 Fluorobenzene	96	11.085	11.085	(1.000)	4180371	50	
25 Trichloroethene	95	11.544	11.544	(1.041)	3266937	100	93
23 1,2-Dichloropropane	63	11.828	11.828	(1.067)	3651716	100	94
120 Methyl methacrylate	69	11.840	11.840	(1.068)	2371320	100	93
119 Dibromomethane	93	11.988	11.988	(1.081)	3329216	100	94
95 1,4-Dioxane	88	11.943	11.943	(1.077)	1158035	4000	(a)
22 Bromodichloromethane	83	12.121	12.121	(1.093)	5235060	100	96
30 2-Chloroethyl Vinyl Ether	63	12.387	12.387	(1.117)	2279151	100	97
118 Epichlorohydrin	57	12.506	12.506	(1.128)	6630226	2000	1800
24 cis-1,3-Dichloropropene	75	12.624	12.624	(1.139)	4503180	100	95
33 4-Methyl-2-Pentanone	43	12.743	12.743	(1.149)	3323375	100	94
62 n-Heptane	57	8.629	8.629	(0.778)	7893	100	(a)
60 Isobutanol	41	13.453	13.453	(0.918)	29320	4000	(a)
$ 37 Toluene-d8 (SUR)	98	12.979	12.979	(0.886)	7156110	100	95
38 Toluene	91	13.053	13.053	(0.891)	7963310	100	95
29 trans-1,3-Dichloropropene	75	13.246	13.246	(0.904)	3788783	100	96
27 1,1,2-Trichloroethane	83	13.482	13.482	(0.920)	2916546	100	97(M)
103 1,3-Dichloropropane	76	13.690	13.690	(0.934)	4850338	100	95
35 Tetrachloroethene	166	13.719	13.719	(0.936)	3198252	100	94
34 2-Hexanone	43	13.690	13.690	(0.934)	2079741	100	91

303925

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8237.d
Report Date: 14-Oct-98 11:22:28

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS CN-COL (ug/L)
	26 Dibromochloromethane	129	13.986	13.986	(0.955)	4549262	100	100
	66 1,2-Dibromoethane	107	14.163	14.163	(0.967)	4610963	100	97
*	32 Chlorobenzene-d5	117	14.651	14.651	(1.000)	2937121	50	
	39 Chlorobenzene	112	14.696	14.696	(1.003)	5691659	100	96
	40 Ethylbenzene	106	14.755	14.755	(1.007)	2545331	100	96
	43 m+p-Xylene	106	14.873	14.873	(1.015)	6308782	200	190
	97 1,1,1,2-Tetrachloroethane	131	14.755	14.755	(1.007)	2969381	100	98
	44 o-Xylene	106	15.332	15.332	(1.046)	3086923	100	97
	42 Styrene	104	15.332	15.332	(1.046)	5091756	100	97
	31 Bromoform	173	15.613	15.613	(1.066)	3508229	100	100
	113 Isopropylbenzene	105	15.702	15.702	(1.072)	6401515	100	92
S	41 Bromofluorobenzene (SUR)	174	15.909	15.909	(0.925)	2744733	100	96
	36 1,1,2,2-Tetrachloroethane	83	15.998	15.998	(0.930)	5783927	100	92
	123 Amyl Acetate	43	12.743	12.743	(0.870)	2299312	200	a
	99 1,2,3-Trichloropropane	75	16.087	16.087	(0.935)	4126069	100	94
	117 Bromobenzene	156	[illegible]	[illegible]	[illegible]	2940719	100	95
	118 n-Propylbenzene	91	16.146	16.146	(0.939)	11334336	100	98
	105 2-Chlorotoluene	91	16.309	16.309	(0.948)	7543030	100	97
	102 1,3,5-Trimethylbenzene	105	16.294	16.294	(0.948)	7171061	100	94
	106 4-Chlorotoluene	91	16.412	16.412	(0.954)	8079383	100	99
	115 tert-Butylbenzene	119	16.694	16.694	(0.971)	7222011	100	97
	100 1,2,4-Trimethylbenzene	105	16.738	16.738	(0.973)	7148625	100	95
	114 sec-Butylbenzene	105	16.930	16.930	(0.985)	9888306	100	99
	113 p-Isopropyltoluene	119	17.063	17.063	(0.992)	7912741	100	99
	67 1,3-Dichlorobenzene	146	17.137	17.137	(0.997)	4988492	100	100
*	81 1,4-Dichlorobenzene-d4	152	17.197	17.197	(1.000)	1429240	50	
	68 1,4-Dichlorobenzene	146	[illegible]	[illegible]	[illegible]	[illegible]	100	94
	117 Benzyl chloride	91	17.345	17.345	(1.009)	5344680	100	95
	111 n-Butylbenzene	91	17.522	17.522	(1.019)	8842116	100	100
	69 1,2-Dichlorobenzene	146	17.685	17.685	(1.028)	4584084	100	97
	101 1,2-Dibromo-3-chloropropane	75	18.543	18.543	(1.078)	1111058	100	98
	93 1,2,4-Trichlorobenzene	[illegible]	19.535	19.535	(1.135)	3517871	100	100
	94 Hexachlorobutadiene	225	19.683	19.683	(1.145)	2559296	100	100
	70 Naphthalene	128	19.890	19.890	(1.157)	7045449	100	98
	98 1,2,3-Trichlorobenzene	180	20.201	20.201	(1.175)	3328601	100	100
	71 Methylnaphthalene (total)	142	21.444	21.444	(1.247)	3415779	100	95
	72 Dimethylnaphthalene (total)	156	23.530	23.530	(1.368)	1888618	100	92
M	14 1,2-Dichloroethene (total)	100				5537926	200	190
M	45 Xylene (Total)	100				9395705	300	290

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

303926

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8237.d
Date : 29-SEP-98 20:38:00
Client ID: BSTD100
Sample Info: BSTD100

Instrument: VOAMS2.i

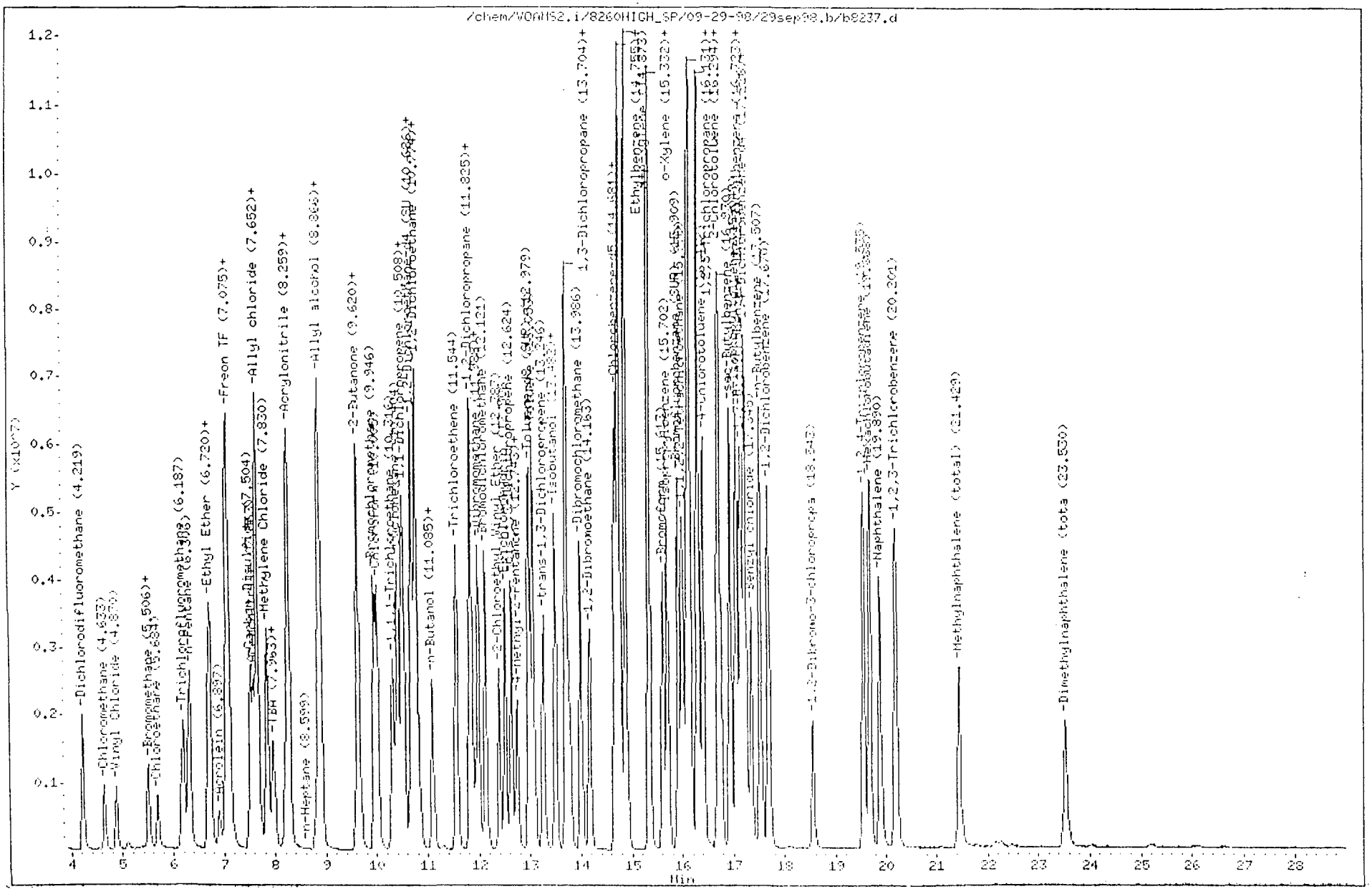
Operator: VOAMS 3

303927

390

Column phase: DB624

Column diameter: 0.53



Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8238.d
Report Date: 14-Oct-98 11:22:44

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8238.d
Lab Smp Id: BSTD200 Client Smp ID: BSTD200
Inj Date : 29-SEP-98 21:16:00
Operator : VOAMS 3 Inst ID: VOAMS2.i
Smp Info : BSTD200
Misc Info :
Comment :
Method : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/new8260HIGH.m
Meth Date : 14-Oct-98 11:22:33 davidl Quant Type: ISTD
Cal Date : 29-SEP-98 21:16:00 Cal File: b8238.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
90 Dichlorodifluoromethane	85	4.318	4.318	(0.380)	5716763	200	180
1 Chloromethane	50	4.632	4.632	(0.417)	3715333	200	200(A)
4 Vinyl Chloride	62	4.884	4.884	(0.440)	3084245	200	190
3 Bromomethane	94	5.505	5.505	(0.496)	2175692	200	140
5 Chloroethane	64	5.683	5.683	(0.512)	2575452	200	180
9 Trichlorofluoromethane	101	6.171	6.171	(0.556)	5542859	200	180
121 n-Pentane	72	6.305	6.305	(0.568)	820799	200	170
46 Ethyl Ether	59	6.689	6.689	(0.603)	3916099	200	180
119 Isoprene	67	6.719	6.719	(0.605)	5324006	200	180
47 Acrolein	56	6.911	6.911	(0.623)	1269858	500	470
48 Freon TF	101	7.059	7.059	(0.636)	9768791	200	180
10 1,1-Dichloroethene	96	7.089	7.089	(0.639)	4638629	200	180
7 Acetone	43	7.163	7.163	(0.645)	1512306	200	140(M)
8 Carbon Disulfide	76	7.503	7.503	(0.676)	15178177	200	200
49 Isopropanol	45	5.461	5.461	(0.492)	6090	5000	(a)
116 Allyl chloride	76	7.651	7.651	(0.689)	2974055	200	180

303928

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8238.d
Report Date: 14-Oct-98 11:22:44

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	50 Acetonitrile	41	7.592	7.592	(0.684)	8837879	4000	3800
	6 Methylene Chloride	84	7.844	7.844	(0.707)	5405778	200	170
	51 TBA	59	7.992	7.992	(0.720)	8462765	4000	3800
	52 Acrylonitrile	53	8.184	8.184	(0.737)	1948097	250	240
	53 MTBE	73	8.258	8.258	(0.744)	12879866	200	190
	12 trans-1,2-Dichloroethene	96	8.273	8.273	(0.745)	5175316	200	190
	122 Allyl alcohol	57	8.805	8.805	(0.793)	1830869	5000	(a)
	11 1,1-Dichloroethane	63	8.865	8.865	(0.799)	10715874	200	190
	57 Vinyl Acetate	43	8.894	8.894	(0.801)	8222655	200	170
	55 DIPE	45	8.894	8.894	(0.801)	20815410	200	180
	58 Tetrahydrofuran	42	7.651	7.651	(0.689)	2649533	200	(a)
	54 Hexane	56	7.992	7.992	(0.720)	201845	200	(a)
	13 2-Butanone	72	9.604	9.604	(0.865)	597545	200	180
	13 cis-1,2-Dichloroethene	96	9.634	9.634	(0.868)	5409752	200	190
	104 2,2-Dichloropropane	77	9.649	9.649	(0.869)	6668833	200	190
	106 Bromochloromethane	128	9.941	9.941	(0.895)	1407070	200	[illegible]
	15 Chloroform	83	10.019	10.019	(0.903)	10400331	200	190
	96 Methyl Acrylate	55	8.805	8.805	(0.793)	118361	200	(a)
	20 1,1,1-Trichloroethane	97	10.315	10.315	(0.929)	7091801	200	190(M)
	59 Cyclohexane	56	10.418	10.418	(0.939)	8158867	200	170
	92 1,1-Dichloropropene	75	10.507	10.507	(0.947)	7196365	200	190
	21 Carbon Tetrachloride	117	10.552	10.552	(0.951)	6645719	200	190
$	16 1,2-Dichloroethane-d4 (SUR)	65	10.685	10.685	(0.963)	4862945	200	190
	63 n-Butanol	56	11.099	11.099	(1.000)	26911	5000	(a)
	61 Isopropyl Acetate	43	10.714	10.714	(0.965)	20276691	400	340
	17 1,2-Dichloroethane	62	10.773	10.773	(0.971)	6145750	200	190
	28 Benzene	78	10.788	10.788	(0.972)	14288447	200	180
*	19 Fluorobenzene	96	11.099	11.099	(1.000)	3969428	50	
	25 Trichloroethene	95	11.558	11.558	(1.041)	6107323	200	190
	23 1,2-Dichloropropane	63	11.839	11.839	(1.067)	6842047	200	190
	120 Methyl methacrylate	69	11.854	11.854	(1.068)	4257819	200	180
	109 Dibromomethane	93	11.987	11.987	(1.081)	4350194	200	190
	95 1,4-Dioxane	88	11.957	11.957	(1.077)	1429388	5000	(a)
	22 Bromodichloromethane	83	12.135	12.135	(1.093)	10035155	200	190
	30 2-Chloroethyl Vinyl Ether	63	12.401	12.401	(1.117)	4402024	200	200
	118 Epichlorohydrin	57	12.520	12.520	(1.128)	11796555	4000	3500
	24 cis-1,3-Dichloropropene	75	12.653	12.653	(1.140)	8660325	200	190
	33 4-Methyl-2-Pentanone	43	12.756	12.756	(1.149)	6511469	200	190
	62 n-Heptane	57	8.643	8.643	(0.779)	12605	200	(a)
	60 Isobutanol	41	13.600	13.600	(0.921)	621	5000	(a)
$	37 Toluene-d8 (SUR)	98	12.993	12.993	(0.880)	13047891	200	190
	38 Toluene	91	13.067	13.067	(0.885)	15059062	200	200
	29 trans-1,3-Dichloropropene	75	13.259	13.259	(0.898)	7238633	200	200(A)
	27 1,1,2-Trichloroethane	83	13.496	13.496	(0.920)	5446114	200	200(M)
	103 1,3-Dichloropropane	76	13.703	13.703	(0.928)	9058934	200	200
	35 Tetrachloroethene	166	13.748	13.748	(0.931)	5886227	200	190
	34 2-Hexanone	43	13.807	13.807	(0.935)	4947635	200	240(A)

303929

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8238.d
Report Date: 14-Oct-98 11:22:44

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	26 Dibromochloromethane	129	14.014	14.014	(0.949)	8589328	200	210(A)
	66 1,2-Dibromoethane	107	14.177	14.177	(0.960)	8635980	200	200(A)
*	32 Chlorobenzene-d5	117	14.665	14.665	(1.000)	2658073	50	(H)
	39 Chlorobenzene	112	14.695	14.695	(0.995)	10577443	200	200
	40 Ethylbenzene	106	14.769	14.769	(1.000)	4691824	200	190(H)
	43 m+p-Xylene	106	14.887	14.887	(1.008)	11570794	400	390
	97 1,1,1,2-Tetrachloroethane	131	14.769	14.769	(1.000)	5426018	200	200
	44 o-Xylene	106	15.346	15.346	(1.039)	5667003	200	200(H)
	42 Styrene	104	15.346	15.346	(1.039)	9428033	200	200
	31 Bromoform	173	15.627	15.627	(1.058)	6625884	200	220(A)
	110 Isopropylbenzene	105	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
S	41 Bromofluorobenzene (SUR)	174	15.923	15.923	(0.925)	4826865	200	180
	36 1,1,2,2-Tetrachloroethane	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	200	[illegible]
	123 Amyl Acetate	43	12.756	12.756	0.664	6484860	400	(a)
	99 1,2,3-Trichloropropane	75	16.086	16.086	(0.935)	7656602	200	180
	[illegible] Bromobenzene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	112 n-Propylbenzene	91	16.160	16.160	0.939	20646799	200	190
	105 2-Chlorotoluene	91	16.308	16.308	0.948)	13991716	200	190
	102 1,3,5-Trimethylbenzene	105	16.308	16.303	0.948	13365836	200	180
	106 4-Chlorotoluene	91	16.411	16.411	(0.954)	14970059	200	190
	115 tert-Butylbenzene	119	16.707	16.707	(0.971)	13192449	200	180
	100 1,2,4-Trimethylbenzene	105	16.752	16.752	(0.973)	13267248	200	180
	114 sec-Butylbenzene	105	16.944	16.944	(0.985)	13655486	200	200
	113 p-Isopropyltoluene	119	17.063	17.063	(0.991)	14966242	200	190
	67 1,3-Dichlorobenzene	146	17.151	17.151	0.997)	8712249	200	180
*	91 1,4-Dichlorobenzene-d4	152	17.219	17.219	(1.000)	1373441	50	
	68 1,4-Dichlorobenzene	146	[illegible]	[illegible]	[illegible]	[illegible]	200	190
	117 Benzyl chloride	91	17.358	17.358	(1.009)	9465167	200	180
	111 n-Butylbenzene	91	17.521	17.521	(1.018)	16734305	200	200
	69 1,2-Dichlorobenzene	146	17.684	17.684	1.028	8676998	200	190
	101 1,2-Dibromo-3-chloropropane	75	18.542	18.542	[illegible]	2181603	200	200
	93 1,2,4-Trichlorobenzene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	200(A)
	94 Hexachlorobutadiene	225	19.682	19.682	(1.144)	4776791	200	200
	70 Naphthalene	128	19.904	19.904	(1.156)	13823496	200	200
	98 1,2,3-Trichlorobenzene	180	20.200	20.200	1.174	6421179	200	200(A)
	71 Methylnaphthalene (total)	142	21.443	21.443	1.246)	7086835	200	200(A)
	72 Dimethylnaphthalene (total)	156	23.529	23.529	(1.367)	4049690	200	210(A)
M	14 1,2-Dichloroethene (total)	100				10585068	400	380
M	45 Xylene (Total)	100				17237797	600	590

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

303930

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8238.d
Report Date: 14-Oct-98 11:22:44

QC Flag Legend

H - Operator selected an alternate compound hit.

303931

Data File: /chem/VOAHS2.i/8260HIGH_SP/09-29-98/29sep98.b/b8238.d
Date : 29-SEP-98 21:16:00
Client ID: BSTD200
Sample Info: BSTD200

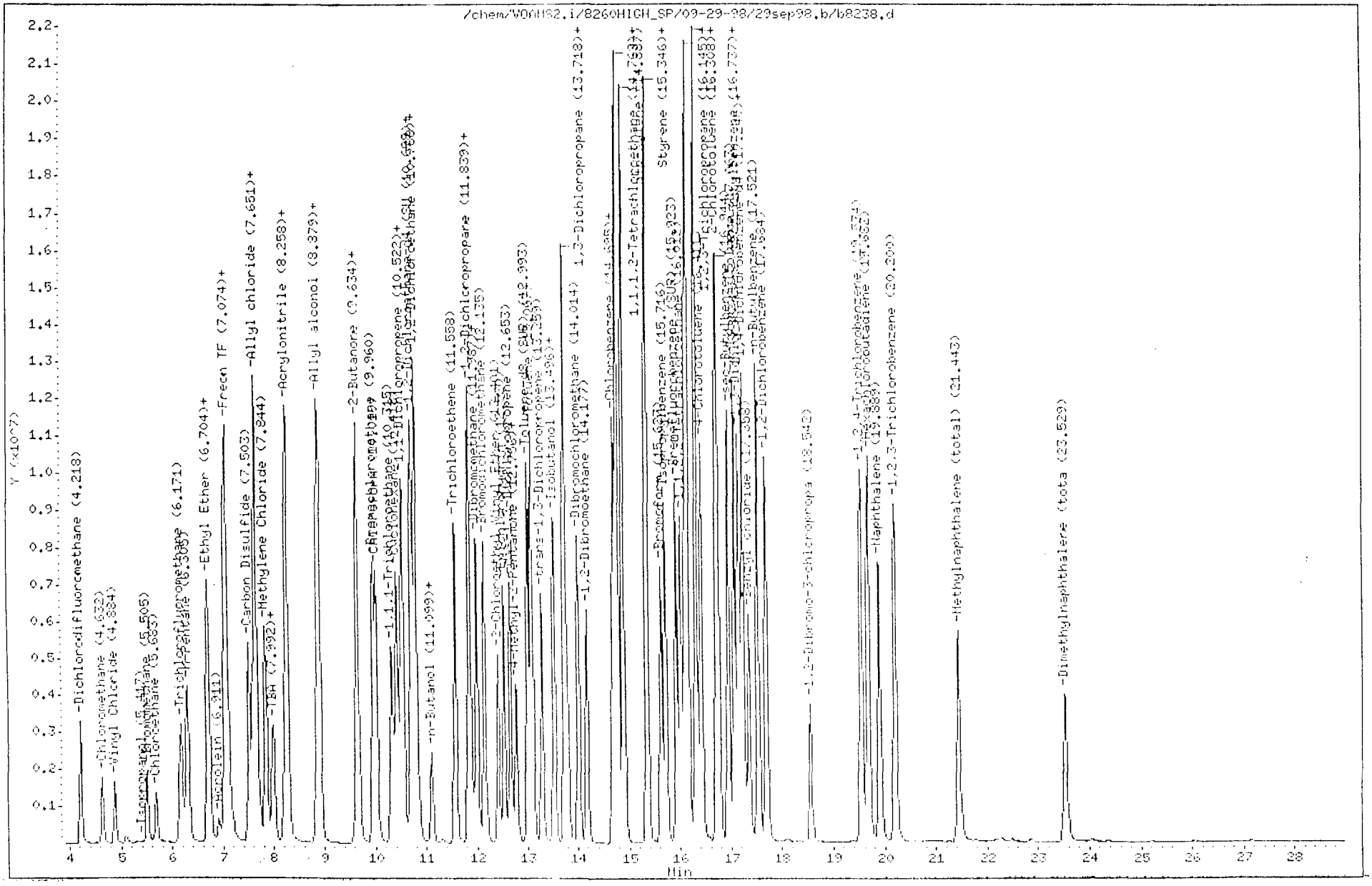
Instrument: VOAHS2.i

Operator: VOAHS 3

303932

Column phase: DB624

Column diameter: 0.53



395

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 8260B

Instrument ID: VOAMS2 Calibration Date: 10/18/98 Time: 1150

Lab File ID: B8522 Init. Calib. Date(s): 09/29/98 09/29/98

Heated Purge: (Y/N) N Init. Calib. Times: 1802 2116

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.230	0.236	0.1	-2.6	50.0
Bromomethane	0.192	0.129		32.8	50.0
Vinyl Chloride	0.206	0.210		-1.9	20.0
Chloroethane	0.179	0.187		-4.3	50.0
Methylene Chloride	0.391	0.354		9.5	50.0
Acetone	0.133	0.103		22.6	50.0
Carbon Disulfide	0.964	0.956		0.8	50.0
Trichlorofluoromethane	0.452	0.450		0.4	50.0
1,1-Dichloroethene	0.323	0.321		0.6	20.0
1,1-Dichloroethane	0.694	0.726	0.1	-4.6	50.0
trans-1,2-Dichloroethene	0.345	0.360		-4.3	50.0
cis-1,2-Dichloroethene	0.357	0.347		2.8	50.0
Chloroform	0.685	0.678		1.0	20.0
1,2-Dichloroethane	0.399	0.400		-0.0	50.0
2-Butanone	0.041	0.041		0.0	50.0
1,1,1-Trichloroethane	0.464	0.466		-0.0	50.0
Carbon Tetrachloride	0.433	0.417		3.7	50.0
Bromodichloromethane	0.653	0.660		-0.9	50.0
1,2-Dichloropropane	0.462	0.453		1.9	20.0
cis-1,3-Dichloropropene	0.567	0.580		-2.1	50.0
Trichloroethene	0.420	0.420		0.0	50.0
Dibromochloromethane	0.768	0.806		-4.9	50.0
1,1,2-Trichloroethane	0.514	0.542		-5.4	50.0
Benzene	0.991	0.954		3.7	50.0
trans-1,3-Dichloropropene	0.672	0.731		-8.6	50.0
2-Chloroethyl Vinyl Ether	0.280	0.294		-5.0	50.0
Bromoform	0.577	0.568	0.1	1.6	50.0
4-Methyl-2-Pentanone	0.423	0.448		-5.9	50.0
2-Hexanone	0.389	0.428		-10.0	50.0
Tetrachloroethene	0.579	0.594		-2.4	50.0
1,1,2,2-Tetrachloroethane	2.202	2.104	0.3	4.4	50.0
Toluene	1.431	1.521		-6.1	20.0
Chlorobenzene	1.005	1.021	0.3	-1.4	50.0
Ethylbenzene	0.453	0.479		-5.7	20.0
Styrene	0.892	0.961		-7.7	50.0
Xylene (Total)	0.548	0.574		-4.7	50.0
Ethyl Ether	0.275	0.292		-6.0	50.0

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8260B

Instrument ID: VOAMS2 Calibration Date: 10/18/98 Time: 1150

Lab File ID: B8522 Init. Calib. Date(s): 09/29/98 09/29/98

Heated Purge: (Y/N) N Init. Calib. Times: 1802 2116

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Acrolein	0.034	0.035		-2.9	50.0
Freon TF	0.700	0.740		-5.7	50.0
Isopropanol					50.0
Acetonitrile	0.029	0.040		-37.9	50.0
TBA	0.028	0.028		0.0	50.0
Acrylonitrile	0.104	0.120		-15.2	50.0
MTBE	0.852	0.831		2.5	50.0
Hexane					50.0
DIPE	1.430	1.630		-13.8	50.0
Ethyl Acetate					50.0
Vinyl Acetate	0.594	0.641		-7.9	50.0
Tetrahydrofuran					50.0
Cyclohexane	0.588	0.645		-9.5	50.0
Isobutanol					50.0
Isopropyl Acetate	0.742	0.902		-21.4	50.0
n-Heptane					50.0
n-Butanol					50.0
Propyl Acetate					50.0
Butyl Acetate					50.0
1,2-Dibromoethane	0.810	0.849		-4.8	50.0
1,3-Dichlorobenzene	1.715	1.747		-1.7	50.0
1,4-Dichlorobenzene	1.928	1.877		2.6	50.0
1,2-Dichlorobenzene	1.645	1.657		0.1	50.0
Naphthalene	2.525	2.459		2.6	50.0
Methylnaphthalene (total)	1.253			100.0	50.0
Dimethylnaphthalene (total)	0.715			100.0	50.0
Dichlorodifluoromethane	0.403	0.369		8.4	50.0
1,1-Dichloropropene	0.477	0.482		-1.0	50.0
1,2,4-Trichlorobenzene	1.220	1.177		3.5	50.0
Hexachlorobutadiene	0.880	0.837		4.9	50.0
1,4-Dioxane					50.0
Methyl Acrylate					50.0
1,1,1,2-Tetrachloroethane	0.514	0.520		-1.0	50.0
1,2,3-Trichlorobenzene	1.162	1.118		3.8	50.0
1,2,3-Trichloropropane	1.542	1.602		-3.7	50.0
1,2,4-Trimethylbenzene	2.640	2.788		-5.6	50.0
1,2-Dibromo-3-chloropropane	0.398	0.392		1.5	50.0

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8260B

Instrument ID: VOAMS2 Calibration Date: 10/18/98 Time: 1150

Lab File ID: B8522 Init. Calib. Date(s): 09/29/98 09/29/98

Heated Purge: (Y/N) N Init. Calib. Times: 1802 2116

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,3,5-Trimethylbenzene	2.656	2.795		-5.2	50.0
1,3-Dichloropropane	0.865	0.944		-9.1	50.0
2,2-Dichloropropane	0.445	0.476		-6.8	50.0
2-Chlorotoluene	2.722	2.966		-8.8	50.0
4-Chlorotoluene	2.849	3.149		-10.5	50.0
Bromobenzene	1.082	1.070		1.1	50.0
Bromochloromethane	0.236	0.222		5.9	50.0
Dibromomethane	0.423	0.418		1.2	50.0
Isopropylbenzene	1.182	1.604		-35.7	50.0
n-Butylbenzene	3.059	3.275		-6.9	50.0
n-Propylbenzene	4.038	4.377		-8.2	50.0
p-Isopropyltoluene	2.796	2.905		-3.7	50.0
sec-Butylbenzene	3.478	3.624		-4.0	50.0
tert-Butylbenzene	2.604	2.683		-3.0	50.0
Allyl chloride	0.208	0.220		-5.6	50.0
Benzyl chloride	1.963	2.230		-13.6	50.0
Epichlorohydrin	0.043	0.049		-13.8	50.0
Isoprene	0.368	0.406		-10.3	50.0
Methyl methacrylate	0.306	0.322		-5.2	50.0
n-Pentane	0.059	0.070		-18.6	50.0
Allyl alcohol					50.0
Amyl Acetate					50.0
1,2-Dichloroethane-d4 (SUR)	0.329	0.338		-2.7	50.0
Toluene-d8 (SUR)	1.285	1.339		-4.2	50.0
Bromofluorobenzene (SUR)	0.998	0.972		2.6	50.0

303935

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/b8522.d
Report Date: 18-Oct-98 12:38:56

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/b8522.d
Lab Smp Id: BSTD291
Inj Date : 18-OCT-98 11:50:00
Operator : VOAMS 3 Inst ID: VOAMS2.i
Smp Info : BSTD291
Misc Info :
Comment :
Method : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/new8260HIGH.m
Meth Date : 18-Oct-98 12:31:29 Quant Type: ISTD
Cal Date : 29-SEP-98 21:16:00 Cal File: b8238.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	10.000	Volume of final extract (mL)
Ws	5.000	Weight of sample extracted (g)
M	0.000	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	4.143	4.218	(0.376)	2037523	50	46
1 Chloromethane	50	4.557	4.632	(0.414)	1303258	50	51
4 Vinyl Chloride	62	4.794	4.884	(0.435)	1159743	50	51
3 Bromomethane	94	5.415	5.505	(0.492)	714283	50	34
5 Chloroethane	64	5.593	5.683	(0.508)	1034563	50	52
9 Trichlorofluoromethane	101	6.096	6.171	(0.554)	2486338	50	50
121 n-Pentane	72	6.214	6.305	(0.564)	389289	50	59
46 Ethyl Ether	59	6.599	6.689	(0.599)	1614708	50	53
119 Isoprene	67	6.629	6.719	(0.602)	2243860	50	55
47 Acrolein	56	6.821	6.911	(0.620)	1168221	300	310
48 Freon TF	101	6.969	7.059	(0.633)	4089412	50	53
10 1,1-Dichloroethene	96	6.999	7.089	(0.636)	1772979	50	50
7 Acetone	43	7.073	7.163	(0.642)	567403	50	38
8 Carbon Disulfide	76	7.413	7.503	(0.673)	5283089	50	50
116 Allyl chloride	76	7.546	7.651	(0.685)	1214063	50	53(T)
50 Acetonitrile	41	7.546	7.592	(0.685)	4398294	1000	1400

303936

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/b8522.d
Report Date: 18-Oct-98 12:38:56

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
6 Methylene Chloride	84	7.739	7.844	(0.703)	1956974	50	45
51 TBA	59	7.872	7.992	(0.715)	3111770	1000	990
52 Acrylonitrile	53	8.094	8.184	(0.735)	1983453	150	170
53 MTBE	73	8.153	8.258	(0.741)	4595157	50	49
12 trans-1,2-Dichloroethene	96	8.168	8.273	(0.742)	1988636	50	52
11 1,1-Dichloroethane	63	8.760	8.865	(0.796)	4012308	50	52
57 Vinyl Acetate	43	8.804	8.894	(0.800)	3544598	50	54
55 DIPE	45	8.804	8.894	(0.800)	9007372	50	57
18 2-Butanone	72	9.514	9.604	(0.864)	229267	50	50
13 cis-1,2-Dichloroethene	96	9.544	9.634	(0.867)	1916143	50	48
104 2,2-Dichloropropane	77	9.559	9.649	(0.868)	2628019	50	53
108 Bromochloromethane	128	9.870	9.960	(0.896)	1226319	50	47
15 Chloroform	83	9.929	10.019	(0.902)	3746599	50	49
20 1,1,1-Trichloroethane	97	10.239	10.315	(0.930)	2575656	50	50
59 Cyclohexane	56	10.328	10.418	(0.938)	3566118	50	55
92 1,1-Dichloropropene	75	10.432	10.507	(0.948)	2661275	50	50
21 Carbon Tetrachloride	117	10.461	10.552	(0.950)	2306031	50	48
$ 16 1,2-Dichloroethane-d4 (SUR)	65	10.595	10.685	(0.962)	1869225	50	51
61 Isopropyl Acetate	43	10.624	10.714	(0.965)	9968123	100	120
17 1,2-Dichloroethane	62	10.683	10.773	(0.970)	2213578	50	50
28 Benzene	78	10.698	10.788	(0.972)	5273273	50	48
* 19 Fluorobenzene	96	11.009	11.099	(1.000)	5526717	50	
25 Trichloroethene	95	11.468	11.558	(1.042)	2321893	50	50
23 1,2-Dichloropropane	63	11.749	11.839	(1.067)	2505444	50	49
120 Methyl methacrylate	69	11.764	11.854	(1.069)	1780007	50	53
109 Dibromomethane	93	11.912	11.987	(1.082)	2310544	50	49
22 Bromodichloromethane	83	12.060	12.135	(1.095)	3645831	50	50
30 2-Chloroethyl Vinyl Ether	63	12.326	12.401	(1.120)	1625655	50	52
118 Epichlorohydrin	57	12.444	12.520	(1.130)	5406202	1000	1100
24 cis-1,3-Dichloropropene	75	12.563	12.653	(1.141)	3206585	50	51
33 4-Methyl-2-Pentanone	43	12.681	12.756	(1.152)	2478587	50	53
$ 37 Toluene-d8 (SUR)	98	12.918	12.993	(0.885)	4818033	50	52
38 Toluene	91	12.992	13.067	(0.890)	5473583	50	53
29 trans-1,3-Dichloropropene	75	13.184	13.259	(0.904)	2630752	50	54
27 1,1,2-Trichloroethane	83	13.421	13.496	(0.920)	1949557	50	53(TM)
103 1,3-Dichloropropane	76	13.628	13.703	(0.934)	3397798	50	55
35 Tetrachloroethene	166	13.658	13.748	(0.936)	2137287	50	51
34 2-Hexanone	43	13.628	13.807	(0.934)	1538359	50	55(H)
26 Dibromochloromethane	129	13.924	14.014	(0.954)	2898984	50	52
66 1,2-Dibromoethane	107	14.102	14.177	(0.967)	3054846	50	52
* 32 Chlorobenzene-d5	117	14.590	14.665	(1.000)	3597757	50	
39 Chlorobenzene	112	14.634	14.695	(1.003)	3674430	50	51
40 Ethylbenzene	106	14.708	14.769	(1.008)	1723981	50	53
43 m+p-Xylene	106	14.812	14.887	(1.015)	4185372	100	100
97 1,1,1,2-Tetrachloroethane	131	14.694	14.769	(1.007)	1871117	50	50
44 o-Xylene	106	15.271	15.346	(1.047)	2015331	50	52
42 Styrene	104	15.285	15.346	(1.048)	3456866	50	54

303937

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/b8522.d
Report Date: 18-Oct-98 12:38:56

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
31 Bromoform	173	15.552	15.627	(1.066)	2045260	50	49
110 Isopropylbenzene	105	15.641	15.716	(1.072)	5769071	50	68
$ 41 Bromofluorobenzene (SUR)	174	15.848	15.923	(0.924)	1680202	50	49
36 1,1,2,2-Tetrachloroethane	83	15.937	16.012	(0.929)	3638379	50	48
99 1,2,3-Trichloropropane	75	16.025	16.086	(0.934)	2769034	50	52
107 Bromobenzene	156	16.070	16.145	(0.937)	1850097	50	49
112 n-Propylbenzene	91	16.085	16.160	(0.938)	7566396	50	54
105 2-Chlorotoluene	91	16.247	16.308	(0.947)	5127925	50	54
102 1,3,5-Trimethylbenzene	105	16.233	16.308	(0.947)	4831725	50	53
106 4-Chlorotoluene	91	16.351	16.411	(0.953)	5443881	50	55
115 tert-Butylbenzene	119	16.632	16.707	(0.970)	4639155	50	52
100 1,2,4-Trimethylbenzene	105	16.676	16.752	(0.972)	4819269	50	53
114 sec-Butylbenzene	105	16.869	16.944	(0.984)	6265199	50	52
113 p-Isopropyltoluene	119	17.002	17.063	(0.991)	5021669	50	52
67 1,3-Dichlorobenzene	146	17.076	17.151	(0.996)	3020855	50	51
* 91 1,4-Dichlorobenzene-d4	152	17.150	17.210	(1.000)	1728810	50	
68 1,4-Dichlorobenzene	146	17.180	17.240	(1.002)	3244388	50	49
117 Benzyl chloride	91	17.283	17.358	(1.008)	3854462	50	57
111 n-Butylbenzene	91	17.461	17.521	(1.018)	5661270	50	54
69 1,2-Dichlorobenzene	146	17.609	17.684	(1.027)	2864440	50	50
101 1,2-Dibromo-3-chloropropane	75	18.482	18.542	(1.078)	678498	50	49
93 1,2,4-Trichlorobenzene	180	19.473	19.534	(1.135)	2035396	50	48
94 Hexachlorobutadiene	225	19.621	19.682	(1.144)	1446371	50	48
70 Naphthalene	128	19.828	19.904	(1.156)	4251612	50	49
98 1,2,3-Trichlorobenzene	180	20.139	20.200	(1.174)	1933787	50	48
M 14 1,2-Dichloroethene (total)	100				3904779	100	100
M 45 Xylene (Total)	100				6200703	150	160

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

303938

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/b8522.d
Date : 18-OCT-1998 11:50
Client ID:
Sample Info: BSTD291

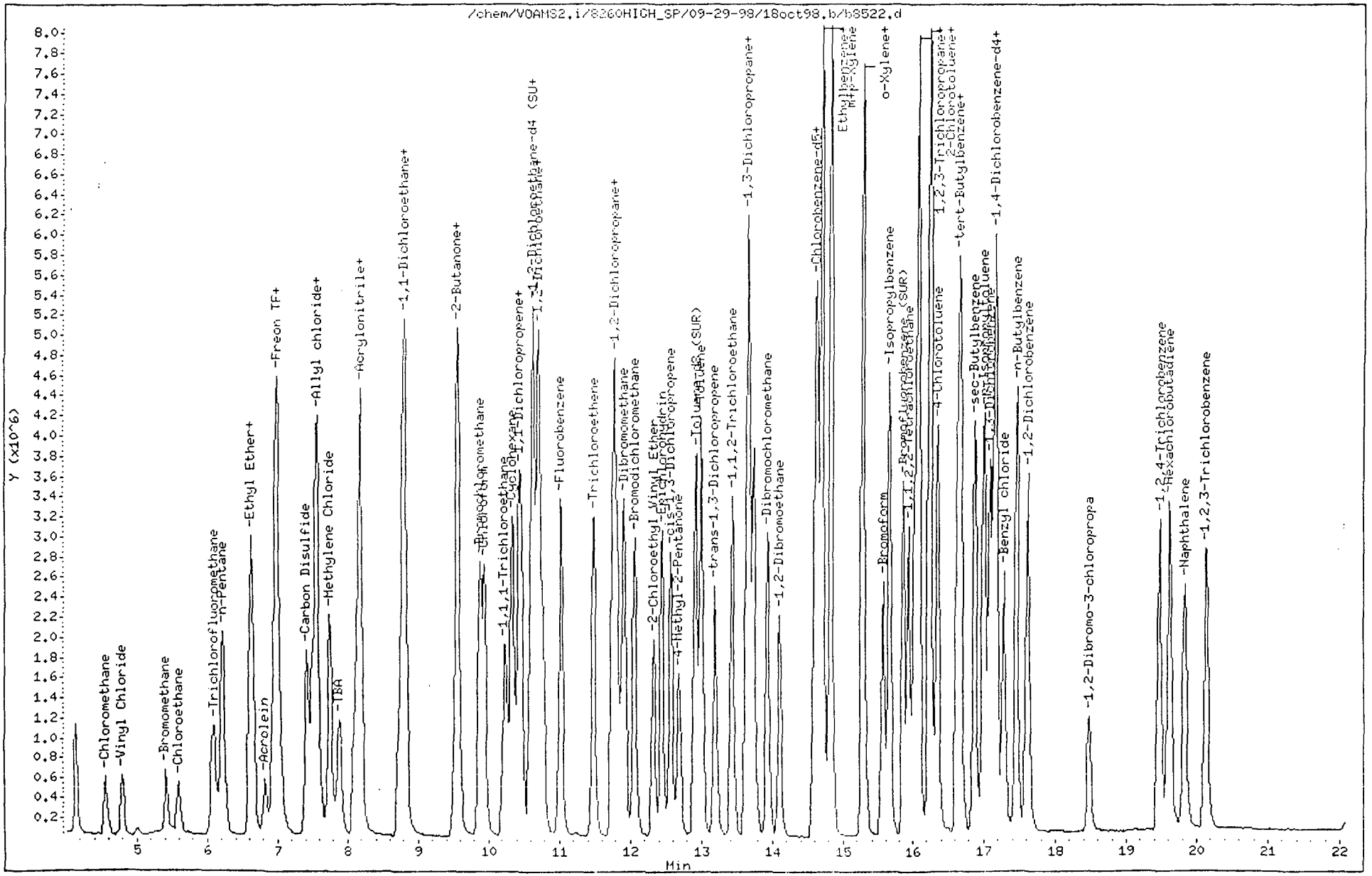
Instrument: VOAMS2.i

Operator: VOAMS 3

303939

Column phase: DB624

Column diameter: 0.53



VOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Calibration Time(s): 0933 1221

LAB FILE ID: RRF5: E4609 RRF20: E4610 RRF50: E4611
RRF100: E4613 RRF200: E4614

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
Chloromethane	0.192	0.199	0.226	0.234	0.234
Bromomethane	0.218	0.205	0.199	0.207	0.209
Vinyl Chloride	0.149	0.154	0.189	0.196	0.190
Chloroethane	0.153	0.151	0.164	0.170	0.171
Methylene Chloride	0.266	0.274	0.240	0.261	0.264
Acetone	0.048	0.053	0.043	0.045	0.042
Carbon Disulfide	0.661	0.637	0.678	0.712	0.680
Trichlorofluoromethane	0.401	0.376	0.454	0.462	0.455
1,1-Dichloroethene	0.252	0.244	0.234	0.256	0.251
1,1-Dichloroethane	0.628	0.666	0.597	0.644	0.643
trans-1,2-Dichloroethene	0.274	0.293	0.265	0.287	0.287
cis-1,2-Dichloroethene	0.318	0.320	0.282	0.302	0.305
Chloroform	0.577	0.602	0.527	0.567	0.566
1,2-Dichloroethane	0.366	0.398	0.335	0.365	0.363
2-Butanone	0.014	0.020	0.017	0.020	0.020
1,1,1-Trichloroethane	0.500	0.511	0.479	0.514	0.504
Carbon Tetrachloride	0.452	0.503	0.489	0.523	0.513
Bromodichloromethane	0.601	0.574	0.501	0.548	0.547
1,2-Dichloropropane	0.445	0.414	0.355	0.393	0.394
cis-1,3-Dichloropropene	0.492	0.486	0.418	0.456	0.459
Trichloroethene	0.346	0.338	0.306	0.328	0.323
Dibromochloromethane	0.516	0.551	0.474	0.532	0.549
1,1,2-Trichloroethane	0.222	0.274	0.236	0.258	0.260
Benzene	1.020	0.842	0.742	0.803	0.804
trans-1,3-Dichloropropene	0.451	0.461	0.397	0.440	0.452
2-Chloroethyl Vinyl Ether	0.210	0.228	0.196	0.220	0.217
Bromoform	0.244	0.279	0.247	0.285	0.300
4-Methyl-2-Pentanone	0.214	0.226	0.198	0.222	0.221
2-Hexanone	0.148	0.166	0.140	0.164	0.170
Tetrachloroethene	0.367	0.341	0.319	0.347	0.351
1,1,2,2-Tetrachloroethane	1.432	1.126	0.956	1.011	1.022
Toluene	1.075	1.106	0.962	1.038	1.030
Chlorobenzene	0.883	0.917	0.798	0.873	0.880
Ethylbenzene	0.360	0.397	0.357	0.399	0.388
Styrene	0.792	0.822	0.702	0.784	0.794
Xylene (Total)	0.482	0.498	0.442	0.487	0.495
Ethyl Ether	0.224	0.242	0.206	0.227	0.230
Acrolein	0.019	0.020	0.019	0.020	0.020
Freon TF	0.434	0.509	0.460	0.545	0.558

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Calibration Time(s): 0933 1221

LAB FILE ID: RRF5: E4609 RRF20: E4610 RRF50: E4611
RRF100: E4613 RRF200: E4614

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
Isopropanol					
Acetonitrile	0.026	0.027	0.022	0.024	0.024
TBA	0.015	0.016	0.014	0.016	0.016
Acrylonitrile	0.055	0.059	0.059	0.060	0.062
MTBE	0.659	0.704	0.613	0.667	0.660
Hexane					
DIPE	1.275	1.390	1.160	1.288	1.274
Ethyl Acetate	0.146	0.144	0.176	0.198	0.199
Vinyl Acetate	0.508	0.552	0.461	0.507	0.503
Tetrahydrofuran					
Cyclohexane	0.404	0.428	0.381	0.458	0.472
Isobutanol					
Isopropyl Acetate	0.475	0.517	0.458	0.499	0.495
n-Heptane					
n-Butanol					
Propyl Acetate	0.254	0.244	0.264	0.290	0.289
Butyl Acetate	0.290	0.331	0.373	0.424	0.436
1,2-Dibromoethane	0.476	0.504	0.422	0.473	0.482
1,3-Dichlorobenzene	1.483	1.271	1.158	1.296	1.192
1,4-Dichlorobenzene	1.778	1.670	1.418	1.476	1.566
1,2-Dichlorobenzene	1.234	1.201	1.025	1.110	1.103
Naphthalene	0.232	0.137	0.165	0.276	0.279
Methylnaphthalene (total)					
Dimethylnaphthalene (total)					
Dichlorodifluoromethane	0.277	0.241	0.346	0.351	0.344
1,1-Dichloropropene	0.350	0.359	0.342	0.367	0.357
1,2,4-Trichlorobenzene					
Hexachlorobutadiene	0.197	0.216	0.202	0.250	0.236
1,4-Dioxane	0.002	0.002	0.002	0.002	0.002
Methyl Acrylate					
1,1,1,2-Tetrachloroethane	0.391	0.414	0.369	0.409	0.421
1,2,3-Trichlorobenzene					
1,2,3-Trichloropropane	0.976	0.905	0.772	0.819	0.818
1,2,4-Trimethylbenzene	3.214	2.855	2.509	2.667	2.596
1,2-Dibromo-3-chloropropane	0.088	0.069	0.064	0.071	0.069
1,3,5-Trimethylbenzene	3.269	2.814	2.521	2.653	2.579
1,3-Dichloropropane	0.472	0.525	0.440	0.488	0.500
2,2-Dichloropropane	0.408	0.431	0.399	0.426	0.415
2-Chlorotoluene	2.454	2.458	2.142	2.296	2.240

303941

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Calibration Time(s): 0933 1221

LAB FILE ID: RRF5: E4609 RRF20: E4610 RRF50: E4611
RRF100: E4613 RRF200: E4614

COMPOUND	RRF5	RRF20	RRF50	RRF100	RRF200
4-Chlorotoluene	3.313	2.990	2.759	2.872	2.801
Bromobenzene	1.060	1.012	0.880	0.930	0.936
Bromochloromethane	0.204	0.198	0.170	0.191	0.192
Dibromomethane	0.284	0.285	0.243	0.268	0.270
Isopropylbenzene	0.886	1.184	1.077	1.175	1.180
n-Butylbenzene	1.851	1.896	1.792	1.930	1.876
n-Propylbenzene	3.884	3.538	3.229	3.441	3.352
p-Isopropyltoluene	2.790	2.705	2.434	2.605	2.518
sec-Butylbenzene	3.326	2.985	2.704	2.916	2.803
tert-Butylbenzene	3.057	2.730	2.435	2.582	2.519
Allyl chloride	0.136	0.154	0.140	0.152	0.156
Benzyl chloride	1.194	1.337	1.085	1.216	1.212
Epichlorohydrin	0.022	0.025	0.019	0.022	0.022
Isoprene	0.245	0.287	0.260	0.306	0.321
Methyl methacrylate	0.188	0.188	0.154	0.172	0.175
n-Pentane	0.035	0.041	0.037	0.044	0.046
Allyl alcohol	0.002	0.002	0.002	0.002	0.002
Amyl Acetate					
1,2-Dichloroethane-d4 (SUR)	0.314	0.329	0.298	0.303	0.304
Toluene-d8 (SUR)	1.072	1.114	1.045	1.045	1.047
Bromofluorobenzene (SUR)	1.091	1.064	0.988	0.987	1.004

303942

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Calibration Time(s): 0933 1221

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Chloromethane	AVRG	0.21725078	9.2**
Bromomethane	AVRG	0.20778826	3.3*
Vinyl Chloride	AVRG	0.17539942	12.5*
Chloroethane	AVRG	0.16173182	5.7*
Methylene Chloride	AVRG	0.26086257	4.9*
Acetone	AVRG	0.04639774	9.3*
Carbon Disulfide	AVRG	0.67360640	4.1*
Trichlorofluoromethane	AVRG	0.42965594	9.0*
1,1-Dichloroethene	AVRG	0.24742959	3.5*
1,1-Dichloroethane	AVRG	0.63561219	4.0**
trans-1,2-Dichloroethene	AVRG	0.28128304	4.0*
cis-1,2-Dichloroethene	AVRG	0.30563862	5.1*
Chloroform	AVRG	0.56782929	4.8*
1,2-Dichloroethane	AVRG	0.36553503	6.2*
2-Butanone	AVRG	0.01838251	13.6*
1,1,1-Trichloroethane	AVRG	0.50154922	2.8*
Carbon Tetrachloride	AVRG	0.49634317	5.5*
Bromodichloromethane	AVRG	0.55430208	6.7*
1,2-Dichloropropane	AVRG	0.40039429	8.2*
cis-1,3-Dichloropropene	AVRG	0.46211763	6.4*
Trichloroethene	AVRG	0.32843767	4.7*
Dibromochloromethane	AVRG	0.52445767	6.0*
1,1,2-Trichloroethane	AVRG	0.25017057	8.2*
Benzene	AVRG	0.84232145	12.5*
trans-1,3-Dichloropropene	AVRG	0.44035382	5.8*
2-Chloroethyl Vinyl Ether	AVRG	0.21417030	5.6*
Bromoform	AVRG	0.27106887	9.1**
4-Methyl-2-Pentanone	AVRG	0.21625254	5.0*
2-Hexanone	AVRG	0.15759263	8.3*
Tetrachloroethene	AVRG	0.34506907	5.1*
1,1,2,2-Tetrachloroethane	AVRG	1.10939615	17.2**
Toluene	AVRG	1.04217119	5.2*
Chlorobenzene	AVRG	0.87015969	5.0**
Ethylbenzene	AVRG	0.38041221	5.4*
Styrene	AVRG	0.77913544	5.8*
Xylene (Total)	AVRG	0.48074486	4.7*
Ethyl Ether	AVRG	0.22577476	5.8*
Acrolein	AVRG	0.01948263	1.5*
Freon TF	AVRG	0.50147582	10.7*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

303943

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Calibration Time(s): 0933 1221

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Isopropanol	AVRG		
Acetonitrile	AVRG	0.02465354	7.7*
TBA	AVRG	0.01528007	6.1*
Acrylonitrile	AVRG	0.05914956	4.2*
MTBE	AVRG	0.66070925	4.9*
Hexane	AVRG		
DIPE	AVRG	1.27717200	6.4*
Ethyl Acetate	AVRG	0.17248365	15.5*
Vinyl Acetate	AVRG	0.50643677	6.4*
Tetrahydrofuran	AVRG		
Cyclohexane	AVRG	0.42885273	8.7*
Isobutanol	AVRG		
Isopropyl Acetate	AVRG	0.48886795	4.6*
n-Heptane	AVRG		
n-Butanol	AVRG		
Propyl Acetate	AVRG	0.26799472	7.8*
Butyl Acetate	AVRG	0.37083720	16.6*
1,2-Dibromoethane	AVRG	0.47151664	6.4*
1,3-Dichlorobenzene	AVRG	1.28000508	9.9*
1,4-Dichlorobenzene	AVRG	1.58132010	9.2*
1,2-Dichlorobenzene	AVRG	1.13482466	7.3*
Naphthalene	AVRG	0.21772409	29.6*
Methylnaphthalene (total)	AVRG		
Dimethylnaphthalene (total)	AVRG		
Dichlorodifluoromethane	AVRG	0.31179469	16.0*
1,1-Dichloropropene	AVRG	0.35489448	2.7*
1,2,4-Trichlorobenzene	AVRG		
Hexachlorobutadiene	AVRG	0.22007165	10.2*
1,4-Dioxane	AVRG	0.00173053	3.3*
Methyl Acrylate	AVRG		
1,1,1,2-Tetrachloroethane	AVRG	0.40100337	5.2*
1,2,3-Trichlorobenzene	AVRG		
1,2,3-Trichloropropane	AVRG	0.85801736	9.5*
1,2,4-Trimethylbenzene	AVRG	2.76812791	10.1*
1,2-Dibromo-3-chloropropane	AVRG	0.07232784	12.7*
1,3,5-Trimethylbenzene	AVRG	2.76745387	10.9*
1,3-Dichloropropane	AVRG	0.48504301	6.6*
2,2-Dichloropropane	AVRG	0.41578164	3.2*
2-Chlorotoluene	AVRG	2.31812061	5.9*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

303944

VOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Calibration Time(s): 0933 1221

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
4-Chlorotoluene	AVRG	2.94696669	7.5*
Bromobenzene	AVRG	0.96360185	7.4*
Bromochloromethane	AVRG	0.19126257	6.7*
Dibromomethane	AVRG	0.27027230	6.2*
Isopropylbenzene	AVRG	1.10028177	11.6*
n-Butylbenzene	AVRG	1.86894028	2.8*
n-Propylbenzene	AVRG	3.48896343	7.1*
p-Isopropyltoluene	AVRG	2.61055013	5.4*
sec-Butylbenzene	AVRG	2.94691418	8.1*
tert-Butylbenzene	AVRG	2.66472854	9.2*
Allyl chloride	AVRG	0.14758058	6.1*
Benzyl chloride	AVRG	1.20902152	7.4*
Epichlorohydrin	AVRG	0.02215982	9.1*
Isoprene	AVRG	0.28379365	11.0*
Methyl methacrylate	AVRG	0.17565960	8.0*
n-Pentane	AVRG	0.04070180	11.4*
Allyl alcohol	AVRG	0.00232670	7.8*
Amyl Acetate	AVRG		
1,2-Dichloroethane-d4 (SUR)	AVRG	0.30943109	4.0*
Toluene-d8 (SUR)	AVRG	1.06456668	2.8*
Bromofluorobenzene (SUR)	AVRG	1.02674904	4.6*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

303945

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4609.d
Report Date: 31-Oct-1998 09:16

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4609.d
Lab Smp Id: ESTD005 Client Smp ID: ESTD005
Inj Date : 14-OCT-1998 10:01
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : ESTD005
Misc Info :
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/8260newHIGH.m
Meth Date : 15-Oct-98 12:04:05 tim Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * 5/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	2.982	2.982	(0.326)	77890	5.00000	4.4(M)
1 Chloromethane	50	3.169	3.169	(0.346)	54115	5.00000	4.4(a)
4 Vinyl Chloride	62	3.388	3.388	(0.370)	41930	5.00000	4.2(a)
3 Bromomethane	94	3.886	3.886	(0.425)	61285	5.00000	5.2
5 Chloroethane	64	4.042	4.042	(0.442)	43003	5.00000	4.7(a)
9 Trichlorofluoromethane	101	4.463	4.463	(0.487)	112795	5.00000	4.7(a)
121 n-Pentane	72	4.556	4.556	(0.498)	9834	5.00000	4.3(a)
46 Ethyl Ether	59	4.821	4.821	(0.527)	62849	5.00000	5.0
119 Isoprene	67	4.883	4.883	(0.533)	68967	5.00000	4.3(a)
47 Acrolein	56	4.993	4.993	(0.545)	106960	100.000	98(a)
48 Freon TF	101	5.211	5.211	(0.569)	122068	5.00000	4.3(a)
10 1,1-Dichloroethene	96	5.180	5.180	(0.566)	28275	2.00000	2.0
7 Acetone	43	5.195	5.195	(0.568)	13594	5.00000	5.2(M)
8 Carbon Disulfide	76	5.522	5.522	(0.603)	185687	5.00000	4.9(a)
116 Allyl chloride	76	5.647	5.647	(0.617)	38209	5.00000	4.6(a)
50 Acetonitrile	41	5.647	5.647	(0.617)	144872	100.000	100
6 Methylene Chloride	84	5.819	5.819	(0.636)	44804	3.00000	3.0(M)

303946

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4609.d
Report Date: 31-Oct-1998 09:16

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
51 TBA	59	5.912	5.912	(0.646)	82619	100.000	96(a)
52 Acrylonitrile	53	6.099	6.099	(0.666)	155396	50.0000	47(a)
53 MTBE	73	6.208	6.208	(0.678)	185089	5.00000	5.0
12 trans-1,2-Dichloroethene	96	6.208	6.208	(0.678)	77067	5.00000	4.9(a)
122 Allyl alcohol	57	6.738	6.738	(0.736)	115932	1000.00	890(a)
11 1,1-Dichloroethane	63	6.769	6.769	(0.739)	176358	5.00000	4.9(a)
57 Vinyl Acetate	43	6.847	6.847	(0.748)	142746	5.00000	5.0(T)
55 DIPE	45	6.847	6.847	(0.748)	358232	5.00000	5.0
18 2-Butanone	72	7.595	7.595	(0.830)	4069	5.00000	3.9(aM)
13 cis-1,2-Dichloroethene	96	7.579	7.579	(0.828)	89431	5.00000	5.2
56 Ethyl Acetate	43	7.626	7.626	(0.833)	82195	10.0000	8.5(a)
104 2,2-Dichloropropane	77	7.611	7.611	(0.831)	114582	5.00000	4.9(a)
108 Bromochloromethane	128	7.907	7.907	(0.864)	57477	5.00000	5.3
15 Chloroform	83	8.000	8.000	(0.874)	162097	5.00000	5.1
20 1,1,1-Trichloroethane	97	8.312	8.312	(0.908)	140665	5.00000	5.0
59 Cyclohexane	56	8.437	8.437	(0.922)	113689	5.00000	4.7(a)
92 1,1-Dichloropropene	75	8.530	8.530	(0.932)	98254	5.00000	4.9(a)
21 Carbon Tetrachloride	117	8.561	8.561	(0.935)	50876	2.00000	1.8(a)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.686	8.686	(0.949)	88154	5.00000	5.1
61 Isopropyl Acetate	43	8.795	8.795	(0.961)	267010	10.0000	9.7(a)
17 1,2-Dichloroethane	62	8.795	8.795	(0.961)	41185	2.00000	2.0
28 Benzene	78	8.811	8.811	(0.963)	57316	1.00000	1.2
* 19 Fluorobenzene	96	9.154	9.154	(1.000)	2810267	50.0000	
25 Trichloroethene	95	9.637	9.637	(1.053)	19462	1.00000	1.0
23 1,2-Dichloropropane	63	9.902	9.902	(1.082)	25015	1.00000	1.1
120 Methyl methacrylate	69	9.980	9.980	(1.090)	52923	5.00000	5.4
64 Propyl Acetate	43	10.043	10.043	(1.097)	142559	10.0000	9.5(a)
109 Dibromomethane	93	10.058	10.058	(1.099)	79744	5.00000	5.2
95 1,4-Dioxane	88	10.027	10.027	(1.095)	94603	1000.00	970(a)
22 Bromodichloromethane	83	10.230	10.230	(1.117)	33790	1.00000	1.1
30 2-Chloroethyl Vinyl Ether	63	10.557	10.557	(1.153)	59046	5.00000	4.9(a)
118 Epichlorohydrin	57	10.635	10.635	(1.162)	124595	100.000	100
24 cis-1,3-Dichloropropene	75	10.760	10.760	(1.175)	138173	5.00000	5.3
33 4-Methyl-2-Pentanone	43	10.916	10.916	(1.192)	60159	5.00000	4.9(a)
$ 37 Toluene-d8 (SUR)	98	11.118	11.118	(0.868)	248244	5.00000	5.0
38 Toluene	91	11.196	11.196	(0.875)	248979	5.00000	5.2
29 trans-1,3-Dichloropropene	75	11.414	11.414	(0.892)	104477	5.00000	5.1
27 1,1,2-Trichloroethane	83	11.633	11.633	(0.909)	30884	3.00000	2.7(a)
103 1,3-Dichloropropane	76	11.835	11.835	(0.924)	109346	5.00000	4.9(a)
35 Tetrachloroethene	166	11.882	11.882	(0.928)	17017	1.00000	1.1
34 2-Hexanone	43	11.898	11.898	(0.929)	34309	5.00000	4.7(a)
26 Dibromochloromethane	129	12.132	12.132	(0.948)	119442	5.00000	4.9(a)
65 Butyl Acetate	43	12.023	12.023	(0.939)	134402	10.0000	7.8(a)
66 1,2-Dibromoethane	107	12.287	12.287	(0.960)	110254	5.00000	5.0
* 32 Chlorobenzene-d5	117	12.802	12.802	(1.000)	2315573	50.0000	
39 Chlorobenzene	112	12.833	12.833	(1.002)	204528	5.00000	5.1
40 Ethylbenzene	106	12.942	12.942	(1.011)	66765	4.00000	3.8(a)

303947

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4609.d
Report Date: 31-Oct-1998 09:16

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
43 m+p-Xylene	106	13.052	13.052	(1.020)	227427	10.0000	10
97 1,1,1,2-Tetrachloroethane	131	12.911	12.911	(1.009)	90491	5.00000	4.9(a)
44 o-Xylene	106	13.504	13.504	(1.055)	107300	5.00000	4.9(a)
42 Styrene	104	13.504	13.504	(1.055)	183381	5.00000	5.1
31 Bromoform	173	13.753	13.753	(1.074)	45172	4.00000	3.6(a)
110 Isopropylbenzene	105	13.893	13.893	(1.085)	205272	5.00000	4.0(a)
$ 41 Bromofluorobenzene (SUR)	174	14.081	14.081	(0.921)	76174	5.00000	5.3
36 1,1,2,2-Tetrachloroethane	83	14.174	14.174	(0.927)	19995	1.00000	1.3
99 1,2,3-Trichloropropane	75	14.237	14.237	(0.932)	68134	5.00000	5.7
107 Bromobenzene	156	14.268	14.268	(0.934)	73996	5.00000	5.5
112 n-Propylbenzene	91	14.315	14.315	(0.937)	271222	5.00000	5.6
105 2-Chlorotoluene	91	14.440	14.440	(0.945)	171371	5.00000	5.3
102 1,3,5-Trimethylbenzene	105	14.486	14.486	(0.948)	228295	5.00000	5.9
106 4-Chlorotoluene	91	14.549	14.549	(0.952)	231318	5.00000	5.6
115 tert-Butylbenzene	119	14.845	14.845	(0.971)	213482	5.00000	5.7
100 1,2,4-Trimethylbenzene	105	14.876	14.876	(0.973)	224425	5.00000	5.8
114 sec-Butylbenzene	105	15.064	15.064	(0.986)	232268	5.00000	5.6
113 p-Isopropyltoluene	119	15.188	15.188	(0.994)	194805	5.00000	5.3
67 1,3-Dichlorobenzene	146	15.220	15.220	(0.996)	103548	5.00000	5.8
* 91 1,4-Dichlorobenzene-d4	152	15.282	15.282	(1.000)	698273	50.0000	
68 1,4-Dichlorobenzene	146	15.313	15.313	(1.002)	124129	5.00000	5.6
117 Benzyl chloride	91	15.407	15.407	(1.008)	83395	5.00000	4.9(a)
111 n-Butylbenzene	91	15.610	15.610	(1.021)	129228	5.00000	5.0
69 1,2-Dichlorobenzene	146	15.704	15.704	(1.028)	86175	5.00000	5.4
101 1,2-Dibromo-3-chloropropane	75	16.468	16.468	(1.078)	6147	5.00000	6.1
94 Hexachlorobutadiene	225	17.497	17.497	(1.145)	13781	5.00000	4.5(a)
70 Naphthalene	128	17.622	17.622	(1.153)	16188	5.00000	5.0(H)
M 14 1,2-Dichloroethene (total)	100				166498	10.0000	10
M 45 Xylene (Total)	100				334727	15.0000	15

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

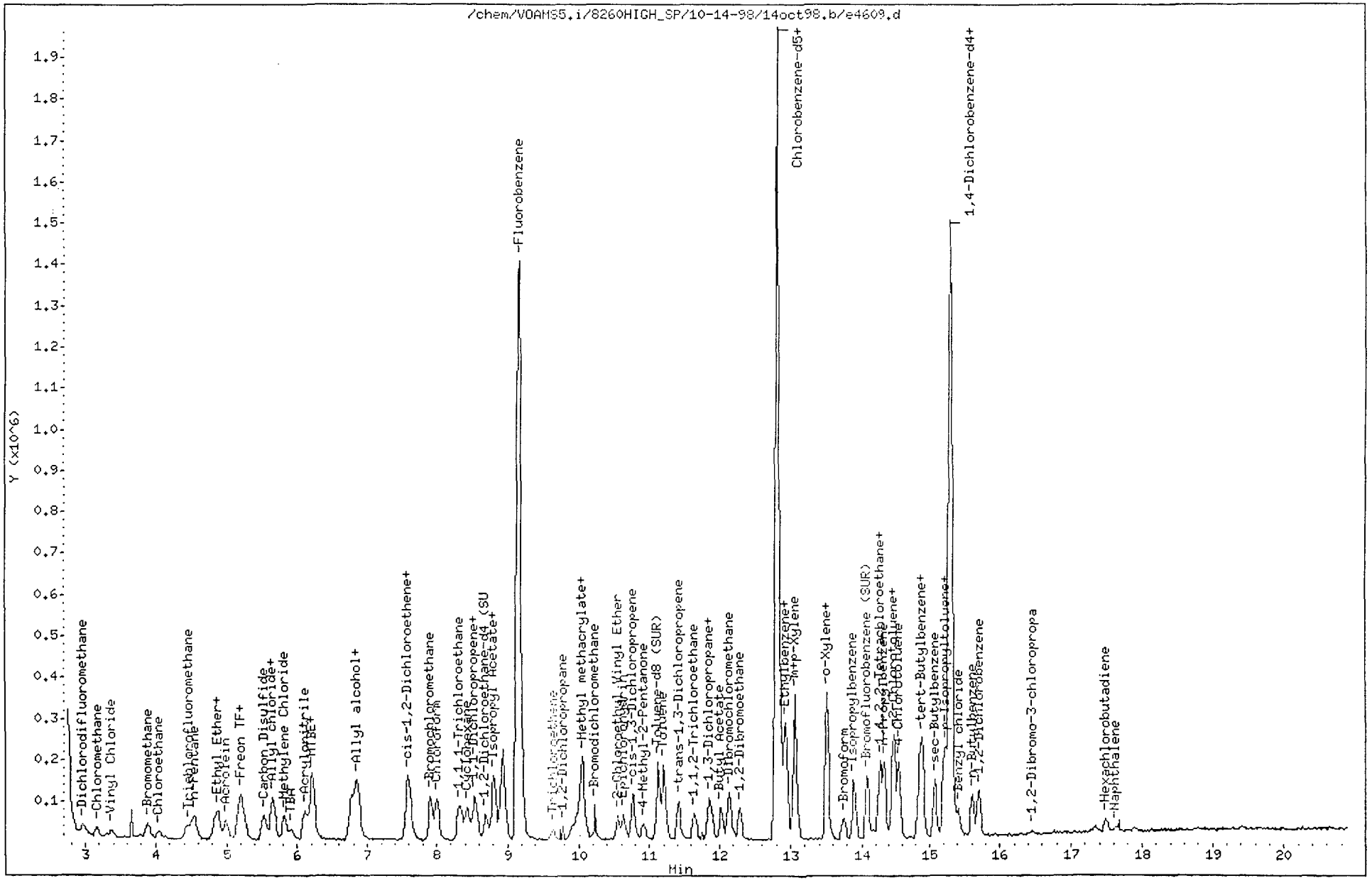
303948

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4609.d
Date : 14-OCT-1998 10:01
Client ID: ESTD005
Sample Info: ESTD005
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS5.i
Operator: VOAMS 5
Column diameter: 0.53

303949

412



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4610.d
Report Date: 31-Oct-1998 09:17

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4610.d
Lab Smp Id: ESTD020 Client Smp ID: ESTD020
Inj Date : 14-OCT-1998 10:29
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : ESTD020
Misc Info :
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/8260newHIGH.m
Meth Date : 15-Oct-98 12:04:05 tim Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * 5/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
90 Dichlorodifluoromethane	85	2.967	2.967	(0.325)	254044	20.0000	15
1 Chloromethane	50	3.169	3.169	(0.347)	210190	20.0000	18
4 Vinyl Chloride	62	3.388	3.388	(0.371)	162398	20.0000	18
3 Bromomethane	94	3.871	3.871	(0.423)	216475	20.0000	20
5 Chloroethane	64	4.042	4.042	(0.442)	159416	20.0000	19
9 Trichlorofluoromethane	101	4.447	4.447	(0.486)	396468	20.0000	17(M)
121 n-Pentane	72	4.541	4.541	(0.497)	43390	20.0000	20
46 Ethyl Ether	59	4.822	4.822	(0.527)	255182	20.0000	21
119 Isoprene	67	4.868	4.868	(0.533)	302703	20.0000	20
47 Acrolein	56	4.978	4.978	(0.544)	207355	200.000	200
48 Freon TF	101	5.212	5.212	(0.570)	537371	20.0000	20
10 1,1-Dichloroethene	96	5.165	5.165	(0.565)	257844	20.0000	20
7 Acetone	43	5.196	5.196	(0.568)	55938	20.0000	23(M)
8 Carbon Disulfide	76	5.508	5.508	(0.603)	672090	20.0000	19
116 Allyl chloride	76	5.648	5.648	(0.618)	162133	20.0000	21
50 Acetonitrile	41	5.648	5.648	(0.618)	573334	400.000	440
6 Methylene Chloride	84	5.804	5.804	(0.635)	288936	20.0000	21

303950

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4610.d
Report Date: 31-Oct-1998 09:17

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
51 TBA	59	5.913	5.913	(0.647)	344233	400.000	430
52 Acrylonitrile	53	6.100	6.100	(0.667)	310657	100.000	100
53 MTBE	73	6.194	6.194	(0.678)	743392	20.0000	21
12 trans-1,2-Dichloroethene	96	6.210	6.210	(0.679)	309258	20.0000	21
122 Allyl alcohol	57	6.724	6.724	(0.736)	237443	2000.00	1900
11 1,1-Dichloroethane	63	6.771	6.771	(0.741)	703317	20.0000	21
57 Vinyl Acetate	43	6.849	6.849	(0.749)	583160	20.0000	22
55 DIPE	45	6.849	6.849	(0.749)	1467150	20.0000	22
18 2-Butanone	72	7.534	7.534	(0.824)	21123	20.0000	22
13 cis-1,2-Dichloroethene	96	7.566	7.566	(0.828)	338316	20.0000	21
56 Ethyl Acetate	43	7.613	7.613	(0.833)	303169	40.0000	33
104 2,2-Dichloropropane	77	7.597	7.597	(0.831)	455330	20.0000	21
108 Bromochloromethane	128	7.909	7.909	(0.865)	209036	20.0000	21
15 Chloroform	83	8.002	8.002	(0.875)	635126	20.0000	21
20 1,1,1-Trichloroethane	97	8.314	8.314	(0.909)	539144	20.0000	20
59 Cyclohexane	56	8.424	8.424	(0.921)	451312	20.0000	20
92 1,1-Dichloropropene	75	8.533	8.533	(0.933)	379437	20.0000	20
21 Carbon Tetrachloride	117	8.564	8.564	(0.937)	531143	20.0000	20
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.689	8.689	(0.950)	347522	20.0000	21
61 Isopropyl Acetate	43	8.798	8.798	(0.962)	1091405	40.0000	42
17 1,2-Dichloroethane	62	8.783	8.783	(0.961)	420579	20.0000	22
28 Benzene	78	8.798	8.798	(0.962)	888525	20.0000	20
* 19 Fluorobenzene	96	9.141	9.141	(1.000)	2638693	50.0000	
25 Trichloroethene	95	9.625	9.625	(1.053)	357072	20.0000	21
23 1,2-Dichloropropane	63	9.890	9.890	(1.082)	437321	20.0000	21
120 Methyl methacrylate	69	9.968	9.968	(1.090)	198844	20.0000	21
64 Propyl Acetate	43	10.030	10.030	(1.097)	514387	40.0000	36
109 Dibromomethane	93	10.046	10.046	(1.099)	301243	20.0000	21
95 1,4-Dioxane	88	10.030	10.030	(1.097)	192310	2000.00	2100
22 Bromodichloromethane	83	10.218	10.218	(1.118)	605793	20.0000	21
30 2-Chloroethyl Vinyl Ether	63	10.545	10.545	(1.154)	240551	20.0000	21
118 Epichlorohydrin	57	10.623	10.623	(1.162)	530190	400.000	450
24 cis-1,3-Dichloropropene	75	10.764	10.764	(1.177)	513506	20.0000	21
33 4-Methyl-2-Pentanone	43	10.904	10.904	(1.193)	238682	20.0000	21
$ 37 Toluene-d8 (SUR)	98	11.122	11.122	(0.868)	950340	20.0000	21
38 Toluene	91	11.200	11.200	(0.875)	943785	20.0000	21
29 trans-1,3-Dichloropropene	75	11.403	11.403	(0.890)	393388	20.0000	21
27 1,1,2-Trichloroethane	83	11.637	11.637	(0.909)	233545	20.0000	22
103 1,3-Dichloropropane	76	11.840	11.840	(0.924)	448045	20.0000	22
35 Tetrachloroethene	166	11.871	11.871	(0.927)	290713	20.0000	20
34 2-Hexanone	43	11.887	11.887	(0.928)	142042	20.0000	21
26 Dibromochloromethane	129	12.136	12.136	(0.948)	469878	20.0000	21
65 Butyl Acetate	43	12.012	12.012	(0.938)	564531	40.0000	36
66 1,2-Dibromoethane	107	12.277	12.277	(0.959)	430582	20.0000	21
* 32 Chlorobenzene-d5	117	12.807	12.807	(1.000)	2133320	50.0000	
39 Chlorobenzene	112	12.838	12.838	(1.002)	782209	20.0000	21
40 Ethylbenzene	106	12.932	12.932	(1.010)	339128	20.0000	21

303951

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4610.d
Report Date: 31-Oct-1998 09:17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	43 m+p-Xylene	106	13.057	13.057	(1.020)	848536	40.0000	41
	97 1,1,1,2-Tetrachloroethane	131	12.916	12.916	(1.009)	353729	20.0000	21
	44 o-Xylene	106	13.494	13.494	(1.054)	427297	20.0000	21
	42 Styrene	104	13.509	13.509	(1.055)	701740	20.0000	21
	31 Bromoform	173	13.743	13.743	(1.073)	237974	20.0000	20
	110 Isopropylbenzene	105	13.884	13.884	(1.084)	1010010	20.0000	22
$	41 Bromofluorobenzene (SUR)	174	14.071	14.071	(0.921)	302838	20.0000	21
	36 1,1,2,2-Tetrachloroethane	83	14.165	14.165	(0.927)	320644	20.0000	20
	99 1,2,3-Trichloropropane	75	14.243	14.243	(0.932)	257821	20.0000	21
	107 Bromobenzene	156	14.259	14.259	(0.934)	288272	20.0000	21
	112 n-Propylbenzene	91	14.321	14.321	(0.938)	1007394	20.0000	20
	105 2-Chlorotoluene	91	14.446	14.446	(0.946)	700003	20.0000	21
	102 1,3,5-Trimethylbenzene	105	14.477	14.477	(0.948)	801324	20.0000	20
	106 4-Chlorotoluene	91	14.540	14.540	(0.952)	851466	20.0000	20
	115 tert-Butylbenzene	119	14.836	14.836	(0.971)	777249	20.0000	20
	100 1,2,4-Trimethylbenzene	105	14.883	14.883	(0.974)	812901	20.0000	21
	114 sec-Butylbenzene	105	15.071	15.071	(0.987)	849930	20.0000	20
	113 p-Isopropyltoluene	119	15.196	15.196	(0.995)	770326	20.0000	21
	67 1,3-Dichlorobenzene	146	15.227	15.227	(0.997)	561824	20.0000	20
*	91 1,4-Dichlorobenzene-d4	152	15.274	15.274	(1.000)	711887	50.0000	
	68 1,4-Dichlorobenzene	146	15.305	15.305	(1.002)	475408	20.0000	21
	117 Benzyl chloride	91	15.415	15.415	(1.009)	380728	20.0000	22
	111 n-Butylbenzene	91	15.602	15.602	(1.021)	539859	20.0000	20
	69 1,2-Dichlorobenzene	146	15.696	15.696	(1.028)	341981	20.0000	21
	101 1,2-Dibromo-3-chloropropane	75	16.444	16.444	(1.077)	19652	20.0000	19
	94 Hexachlorobutadiene	225	17.489	17.489	(1.145)	61420	20.0000	20
	70 Naphthalene	128	17.614	17.614	(1.153)	39079	20.0000	15(H)
M	14 1,2-Dichloroethene (total)	100				647574	40.0000	42
M	45 Xylene (Total)	100				1275833	60.0000	62

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

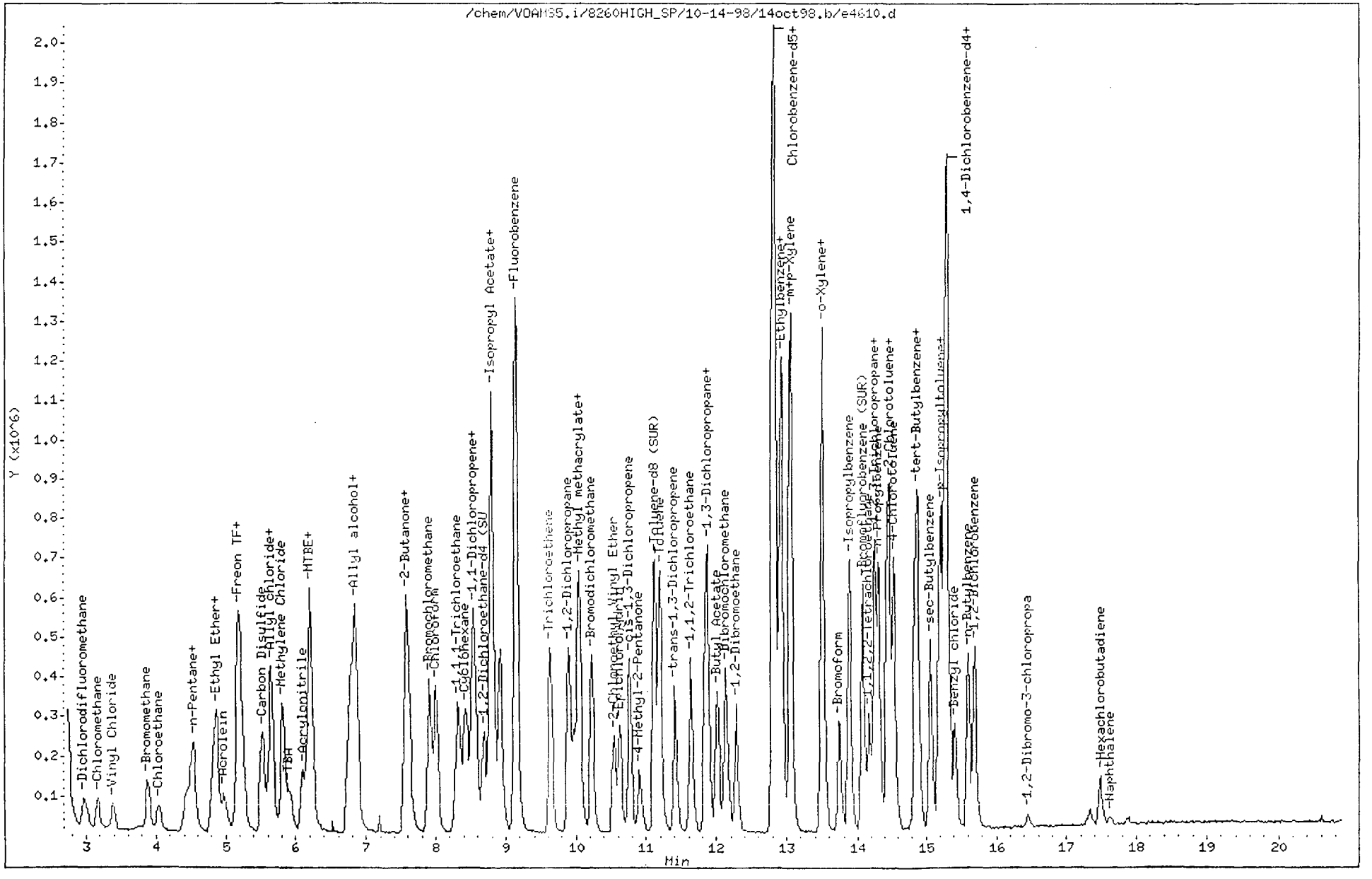
303952

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4610.d
Date : 14-OCT-1998 10:29
Client ID: ESTD020
Sample Info: ESTD020
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS5.i
Operator: VOAMS 5
Column diameter: 0.53

303953

416



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4611.d
Report Date: 31-Oct-1998 09:17

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4611.d
Lab Smp Id: ESTD050 Client Smp ID: ESTD050
Inj Date : 14-OCT-1998 10:57
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : ESTD050
Misc Info :
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/8260newHIGH.m
Meth Date : 15-Oct-98 12:04:05 tim Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * 5/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	2.967	2.967	(0.324)	939525	50.0000	55
1 Chloromethane	50	3.170	3.170	(0.347)	614023	50.0000	52
4 Vinyl Chloride	62	3.388	3.388	(0.370)	512344	50.0000	54
3 Bromomethane	94	3.887	3.887	(0.425)	540475	50.0000	48
5 Chloroethane	64	4.043	4.043	(0.442)	445855	50.0000	51
9 Trichlorofluoromethane	101	4.463	4.463	(0.488)	1232356	50.0000	53(M)
121 n-Pentane	72	4.541	4.541	(0.497)	101307	50.0000	46
46 Ethyl Ether	59	4.807	4.807	(0.526)	558210	50.0000	46
119 Isoprene	67	4.869	4.869	(0.532)	706652	50.0000	46
47 Acrolein	56	4.978	4.978	(0.544)	314928	300.000	300
48 Freon TF	101	5.212	5.212	(0.570)	1248962	50.0000	46
10 1,1-Dichloroethene	96	5.165	5.165	(0.565)	635560	50.0000	47
7 Acetone	43	5.181	5.181	(0.567)	117296	50.0000	46
8 Carbon Disulfide	76	5.509	5.509	(0.602)	1842014	50.0000	50
116 Allyl chloride	76	5.649	5.649	(0.618)	380411	50.0000	47
50 Acetonitrile	41	5.649	5.649	(0.618)	1202124	1000.00	900
6 Methylene Chloride	84	5.805	5.805	(0.635)	651058	50.0000	46

303954

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4611.d
Report Date: 31-Oct-1998 09:17

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
51 TBA	59	5.899	5.899	(0.645)	758615	1000.00	910
52 Acrylonitrile	53	6.086	6.086	(0.666)	483410	150.000	150
53 MTBE	73	6.195	6.195	(0.678)	1665738	50.0000	46
12 trans-1,2-Dichloroethene	96	6.211	6.211	(0.679)	719574	50.0000	47
122 Allyl alcohol	57	6.725	6.725	(0.736)	384854	3000.00	3000
11 1,1-Dichloroethane	63	6.772	6.772	(0.741)	1620999	50.0000	47
57 Vinyl Acetate	43	6.835	6.835	(0.747)	1252316	50.0000	46
55 DIPE	45	6.835	6.835	(0.747)	3149841	50.0000	45
18 2-Butanone	72	7.552	7.552	(0.826)	46857	50.0000	47
13 cis-1,2-Dichloroethene	96	7.567	7.567	(0.828)	765015	50.0000	46
56 Ethyl Acetate	43	7.598	7.598	(0.831)	956683	100.000	100
104 2,2-Dichloropropane	77	7.598	7.598	(0.831)	1082590	50.0000	48
108 Bromochloromethane	128	7.910	7.910	(0.865)	463186	50.0000	44
15 Chloroform	83	8.004	8.004	(0.875)	1430348	50.0000	46
20 1,1,1-Trichloroethane	97	8.316	8.316	(0.909)	1299673	50.0000	48
59 Cyclohexane	56	8.425	8.425	(0.921)	1035937	50.0000	44
92 1,1-Dichloropropene	75	8.519	8.519	(0.932)	927674	50.0000	48
21 Carbon Tetrachloride	117	8.566	8.566	(0.937)	1328469	50.0000	49
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.691	8.691	(0.950)	807956	50.0000	48
61 Isopropyl Acetate	43	8.785	8.785	(0.961)	2487995	100.000	94
17 1,2-Dichloroethane	62	8.785	8.785	(0.961)	909637	50.0000	46
28 Benzene	78	8.800	8.800	(0.962)	2016095	50.0000	44
* 19 Fluorobenzene	96	9.144	9.144	(1.000)	2715493	50.0000	
25 Trichloroethene	95	9.627	9.627	(1.053)	831637	50.0000	47
23 1,2-Dichloropropane	63	9.892	9.892	(1.082)	964311	50.0000	44
120 Methyl methacrylate	69	9.970	9.970	(1.090)	418328	50.0000	44
64 Propyl Acetate	43	10.033	10.033	(1.097)	1432651	100.000	98
109 Dibromomethane	93	10.049	10.049	(1.099)	660769	50.0000	45
95 1,4-Dioxane	88	10.033	10.033	(1.097)	274209	3000.00	2900
22 Bromodichloromethane	83	10.220	10.220	(1.118)	1360508	50.0000	45
30 2-Chloroethyl Vinyl Ether	63	10.548	10.548	(1.154)	532372	50.0000	46
118 Epichlorohydrin	57	10.626	10.626	(1.162)	1055683	1000.00	880
24 cis-1,3-Dichloropropene	75	10.766	10.766	(1.177)	1134839	50.0000	45
33 4-Methyl-2-Pentanone	43	10.907	10.907	(1.193)	538516	50.0000	46
$ 37 Toluene-d8 (SUR)	98	11.110	11.110	(0.868)	2314587	50.0000	49
38 Toluene	91	11.203	11.203	(0.876)	2131374	50.0000	46
29 trans-1,3-Dichloropropene	75	11.406	11.406	(0.891)	878596	50.0000	45
27 1,1,2-Trichloroethane	83	11.640	11.640	(0.910)	523849	50.0000	47
103 1,3-Dichloropropane	76	11.843	11.843	(0.926)	973988	50.0000	45
35 Tetrachloroethene	166	11.875	11.875	(0.928)	706987	50.0000	46
34 2-Hexanone	43	11.875	11.875	(0.928)	309056	50.0000	44
26 Dibromochloromethane	129	12.125	12.125	(0.948)	1050125	50.0000	45
65 Butyl Acetate	43	12.015	12.015	(0.939)	1653185	100.000	100
66 1,2-Dibromoethane	107	12.281	12.281	(0.960)	934338	50.0000	45
* 32 Chlorobenzene-d5	117	12.795	12.795	(1.000)	2215046	50.0000	
39 Chlorobenzene	112	12.842	12.842	(1.004)	1766655	50.0000	46
40 Ethylbenzene	106	12.936	12.936	(1.011)	790056	50.0000	47

303955

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4611.d
Report Date: 31-Oct-1998 09:17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	43 m+p-Xylene	106	13.061	13.061	(1.021)	1963870	100.000	92
	97 1,1,1,2-Tetrachloroethane	131	12.905	12.905	(1.009)	818077	50.0000	46
	44 o-Xylene	106	13.498	13.498	(1.055)	972313	50.0000	46
	42 Styrene	104	13.498	13.498	(1.055)	1556122	50.0000	45
	31 Bromoform	173	13.748	13.748	(1.074)	546732	50.0000	46
	110 Isopropylbenzene	105	13.888	13.888	(1.085)	2385407	50.0000	49
$	41 Bromofluorobenzene (SUR)	174	14.076	14.076	(0.921)	726486	50.0000	48
	36 1,1,2,2-Tetrachloroethane	83	14.170	14.170	(0.927)	703445	50.0000	43
	99 1,2,3-Trichloropropane	75	14.232	14.232	(0.931)	568037	50.0000	45
	107 Bromobenzene	156	14.264	14.264	(0.933)	647333	50.0000	46
	112 n-Propylbenzene	91	14.311	14.311	(0.937)	2375194	50.0000	46
	105 2-Chlorotoluene	91	14.451	14.451	(0.946)	1575206	50.0000	46
	102 1,3,5-Trimethylbenzene	105	14.483	14.483	(0.948)	1854490	50.0000	46
	106 4-Chlorotoluene	91	14.545	14.545	(0.952)	2029102	50.0000	47
	115 tert-Butylbenzene	119	14.842	14.842	(0.971)	1791215	50.0000	46
	100 1,2,4-Trimethylbenzene	105	14.889	14.889	(0.974)	1845685	50.0000	45
	114 sec-Butylbenzene	105	15.061	15.061	(0.986)	1989370	50.0000	46
	113 p-Isopropyltoluene	119	15.186	15.186	(0.994)	1790664	50.0000	47
	67 1,3-Dichlorobenzene	146	15.217	15.217	(0.996)	851766	50.0000	45
*	91 1,4-Dichlorobenzene-d4	152	15.280	15.280	(1.000)	735553	50.0000	
	68 1,4-Dichlorobenzene	146	15.311	15.311	(1.002)	1042782	50.0000	45
	117 Benzyl chloride	91	15.421	15.421	(1.009)	798090	50.0000	45
	111 n-Butylbenzene	91	15.608	15.608	(1.021)	1318449	50.0000	48
	69 1,2-Dichlorobenzene	146	15.702	15.702	(1.028)	754269	50.0000	45
	101 1,2-Dibromo-3-chloropropane	75	16.451	16.451	(1.077)	47049	50.0000	44
	94 Hexachlorobutadiene	225	17.496	17.496	(1.145)	148324	50.0000	46
	70 Naphthalene	128	17.621	17.621	(1.153)	121103	50.0000	46(H)
M	14 1,2-Dichloroethene (total)	100				1484589	100.000	93
M	45 Xylene (Total)	100				2936183	150.000	140

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

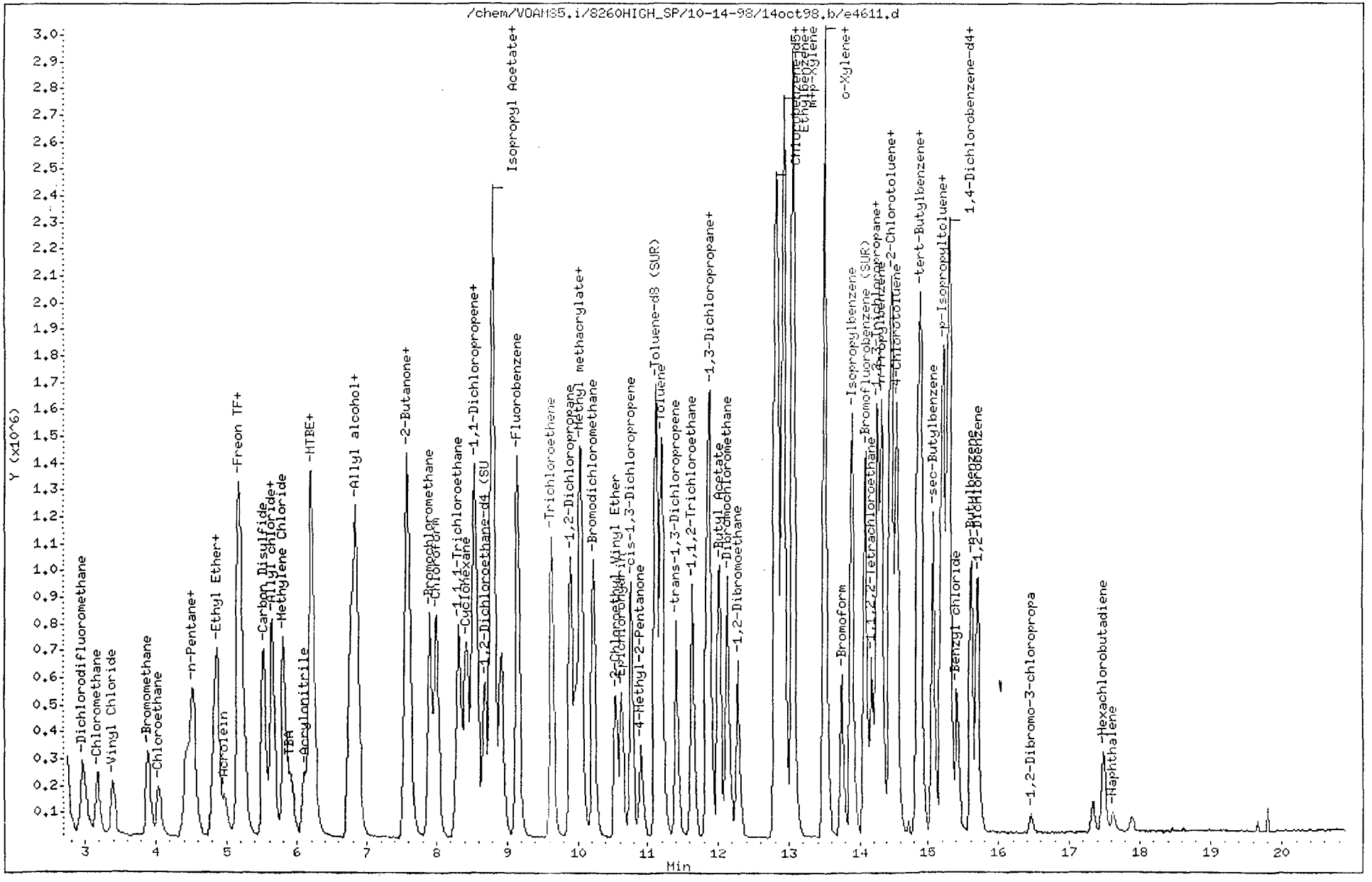
303956

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4611.d
Date : 14-OCT-1998 10:57
Client ID: ESTD050
Sample Info: ESTD050
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS5.i
Operator: VOAMS 5
Column diameter: 0.53

303957

420



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4613.d
Report Date: 31-Oct-1998 09:17

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4613.d
Lab Smp Id: ESTD100 Client Smp ID: ESTD100
Inj Date : 14-OCT-1998 11:53
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : ESTD100
Misc Info :
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/8260newHIGH.m
Meth Date : 15-Oct-98 12:04:05 tim Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * 5/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
90 Dichlorodifluoromethane	85	2.967	2.967	(0.324)	1943716	100.000	110
1 Chloromethane	50	3.185	3.185	(0.348)	1296454	100.000	110
4 Vinyl Chloride	62	3.403	3.403	(0.372)	1083459	100.000	110
3 Bromomethane	94	3.902	3.902	(0.427)	1149814	100.000	100
5 Chloroethane	64	4.043	4.043	(0.442)	940571	100.000	100
9 Trichlorofluoromethane	101	4.464	4.464	(0.488)	2561774	100.000	110(M)
121 n-Pentane	72	4.542	4.542	(0.497)	242415	100.000	110
46 Ethyl Ether	59	4.807	4.807	(0.526)	1260171	100.000	100
119 Isoprene	67	4.870	4.870	(0.532)	1694552	100.000	110
47 Acrolein	56	4.979	4.979	(0.544)	436710	400.000	400
48 Freon TF	101	5.213	5.213	(0.570)	3022576	100.000	110
10 1,1-Dichloroethene	96	5.166	5.166	(0.565)	1421930	100.000	100
7 Acetone	43	5.182	5.182	(0.567)	248734	100.000	97
8 Carbon Disulfide	76	5.510	5.510	(0.602)	3943783	100.000	100
116 Allyl chloride	76	5.650	5.650	(0.618)	841800	100.000	100
50 Acetonitrile	41	5.650	5.650	(0.618)	2667465	2000.00	2000
6 Methylene Chloride	84	5.806	5.806	(0.635)	1444527	100.000	100

303958

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4613.d
Report Date: 31-Oct-1998 09:17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	51 TBA	59	5.916	5.916	(0.647)	1747111	2000.00	2100
	52 Acrylonitrile	53	6.087	6.087	(0.666)	664917	200.000	200
	53 MTBE	73	6.196	6.196	(0.677)	3694367	100.000	100
	12 trans-1,2-Dichloroethene	96	6.212	6.212	(0.679)	1592383	100.000	100
	122 Allyl alcohol	57	6.711	6.711	(0.734)	536140	4000.00	4200
	11 1,1-Dichloroethane	63	6.758	6.758	(0.739)	3567718	100.000	100
	57 Vinyl Acetate	43	6.836	6.836	(0.747)	2811512	100.000	100
	55 DIPE	45	6.836	6.836	(0.747)	7135384	100.000	100
	18 2-Butanone	72	7.522	7.522	(0.822)	111331	100.000	110
	13 cis-1,2-Dichloroethene	96	7.569	7.569	(0.828)	1676306	100.000	99
	56 Ethyl Acetate	43	7.600	7.600	(0.831)	2190460	200.000	230
	104 2,2-Dichloropropane	77	7.600	7.600	(0.831)	2363251	100.000	100
	108 Bromochloromethane	128	7.912	7.912	(0.865)	1058231	100.000	100
	15 Chloroform	83	8.006	8.006	(0.875)	3143679	100.000	100
	20 1,1,1-Trichloroethane	97	8.318	8.318	(0.909)	2849059	100.000	100
	59 Cyclohexane	56	8.428	8.428	(0.921)	2540755	100.000	110
	32 1,1-Dichloropropene	75	8.521	8.521	(0.932)	2034211	100.000	100
	21 Carbon Tetrachloride	117	8.568	8.568	(0.937)	2900896	100.000	100
$	16 1,2-Dichloroethane-d4 (SUR)	65	8.678	8.678	(0.949)	1678223	100.000	98
	61 Isopropyl Acetate	43	8.787	8.787	(0.961)	5535906	200.000	200
	17 1,2-Dichloroethane	62	8.787	8.787	(0.961)	2022441	100.000	100
	28 Benzene	78	8.803	8.803	(0.962)	4451152	100.000	95
*	19 Fluorobenzene	96	9.146	9.146	(1.000)	2770780	50.0000	
	25 Trichloroethene	95	9.630	9.630	(1.053)	1820282	100.000	100
	23 1,2-Dichloropropane	63	9.895	9.895	(1.082)	2178888	100.000	98
	120 Methyl methacrylate	69	9.973	9.973	(1.090)	956454	100.000	98
	64 Propyl Acetate	43	10.020	10.020	(1.096)	3213956	200.000	220
	109 Dibromomethane	93	10.052	10.052	(1.099)	1486690	100.000	99
	95 1,4-Dioxane	88	10.020	10.020	(1.096)	384969	4000.00	4000
	22 Bromodichloromethane	83	10.223	10.223	(1.118)	3036355	100.000	99
	30 2-Chloroethyl Vinyl Ether	63	10.536	10.536	(1.152)	1218568	100.000	100
	118 Epichlorohydrin	57	10.629	10.629	(1.162)	2424524	2000.00	2000
	24 cis-1,3-Dichloropropene	75	10.754	10.754	(1.176)	2526047	100.000	99
	33 4-Methyl-2-Pentanone	43	10.895	10.895	(1.191)	1230975	100.000	100
$	37 Toluene-d8 (SUR)	98	11.113	11.113	(0.868)	4679960	100.000	98
	38 Toluene	91	11.192	11.192	(0.874)	4647885	100.000	100
	29 trans-1,3-Dichloropropene	75	11.410	11.410	(0.891)	1972579	100.000	100
	27 1,1,2-Trichloroethane	83	11.629	11.629	(0.908)	1156944	100.000	100
	103 1,3-Dichloropropane	76	11.832	11.832	(0.924)	2184221	100.000	100
	35 Tetrachloroethene	166	11.879	11.879	(0.928)	1554517	100.000	100
	34 2-Hexanone	43	11.879	11.879	(0.928)	732600	100.000	100
	26 Dibromochloromethane	129	12.129	12.129	(0.948)	2383980	100.000	100
	65 Butyl Acetate	43	12.004	12.004	(0.938)	3795513	200.000	230
	66 1,2-Dibromoethane	107	12.285	12.285	(0.960)	2118387	100.000	100
*	32 Chlorobenzene-d5	117	12.800	12.800	(1.000)	2239373	50.0000	
	39 Chlorobenzene	112	12.831	12.831	(1.002)	3912022	100.000	100
	40 Ethylbenzene	106	12.925	12.925	(1.010)	1789212	100.000	100

303959

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4613.d
Report Date: 31-Oct-1998 09:17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	43 m+p-Xylene	106	13.051	13.051	(1.020)	4370658	200.000	200
	97 1,1,1,2-Tetrachloroethane	131	12.910	12.910	(1.009)	1832847	100.000	100
	44 o-Xylene	106	13.503	13.503	(1.055)	2172348	100.000	100
	42 Styrene	104	13.503	13.503	(1.055)	3512707	100.000	100
	31 Bromoform	173	13.753	13.753	(1.074)	1278019	100.000	100
	110 Isopropylbenzene	105	13.878	13.878	(1.084)	5261389	100.000	110
$	41 Bromofluorobenzene (SUR)	174	14.066	14.066	(0.920)	1528540	100.000	96
	36 1,1,2,2-Tetrachloroethane	83	14.160	14.160	(0.926)	1564746	100.000	91
	99 1,2,3-Trichloropropane	75	14.238	14.238	(0.931)	1267797	100.000	95
	107 Bromobenzene	156	14.269	14.269	(0.933)	1440061	100.000	96
	112 n-Propylbenzene	91	14.316	14.316	(0.937)	5327112	100.000	99
	105 2-Chlorotoluene	91	14.442	14.442	(0.945)	3554729	100.000	99
	102 1,3,5-Trimethylbenzene	105	14.489	14.489	(0.948)	4107088	100.000	96
	106 4-Chlorotoluene	91	14.551	14.551	(0.952)	4445756	100.000	97
	115 tert-Butylbenzene	119	14.848	14.848	(0.971)	3997194	100.000	97
	100 1,2,4-Trimethylbenzene	105	14.879	14.879	(0.973)	4127989	100.000	96
	114 sec-Butylbenzene	105	15.067	15.067	(0.986)	4513470	100.000	99
	113 p-Isopropyltoluene	119	15.192	15.192	(0.994)	4032424	100.000	100
	67 1,3-Dichlorobenzene	146	15.224	15.224	(0.996)	2006883	100.000	100
*	91 1,4-Dichlorobenzene-d4	152	15.286	15.286	(1.000)	773965	50.0000	
	68 1,4-Dichlorobenzene	146	15.302	15.302	(1.001)	2284018	100.000	93
	117 Benzyl chloride	91	15.412	15.412	(1.008)	1882521	100.000	100
	111 n-Butylbenzene	91	15.599	15.599	(1.020)	2987049	100.000	100
	69 1,2-Dichlorobenzene	146	15.693	15.693	(1.027)	1718705	100.000	98
	101 1,2-Dibromo-3-chloropropane	75	16.458	16.458	(1.077)	110224	100.000	98
	94 Hexachlorobutadiene	225	17.489	17.489	(1.144)	386917	100.000	110
	70 Naphthalene	128	17.629	17.629	(1.153)	426946	100.000	140(H)
M	14 1,2-Dichloroethene (total)	100				3268689	200.000	200
M	45 Xylene (Total)	100				6543006	300.000	300

QC Flag Legend

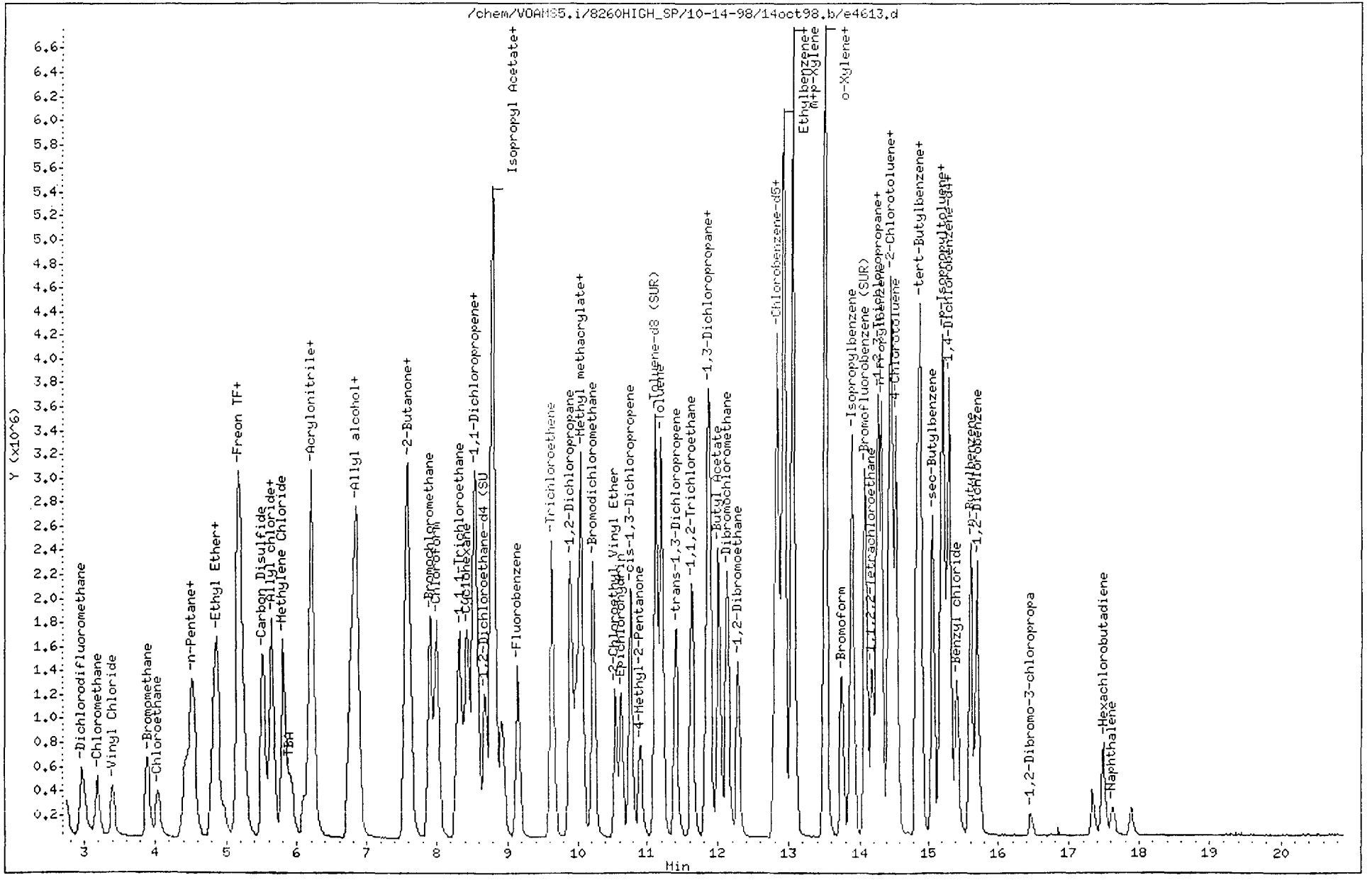
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

303960

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4613.d
Date : 14-OCT-1998 11:53
Client ID: ESTD100
Sample Info: ESTD100
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS5.i
Operator: VOAMS 5
Column diameter: 0.53

303961



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4614.d
Report Date: 31-Oct-1998 09:18

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4614.d
Lab Smp Id: ESTD200 Client Smp ID: ESTD200
Inj Date : 14-OCT-1998 12:21
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : ESTD200
Misc Info :
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/8260newHIGH.m
Meth Date : 15-Oct-98 12:04:05 tim Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * 5/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	2.967	2.967	(0.324)	3809336	200.000	220(A)
1 Chloromethane	50	3.201	3.201	(0.350)	2593685	200.000	220(A)
4 Vinyl Chloride	62	3.419	3.419	(0.374)	2098820	200.000	220(A)
3 Bromomethane	94	3.903	3.903	(0.427)	2314557	200.000	200(A)
5 Chloroethane	64	4.043	4.043	(0.442)	1887978	200.000	210(A)
9 Trichlorofluoromethane	101	4.464	4.464	(0.488)	5034879	200.000	210(AMH)
121 n-Pentane	72	4.543	4.543	(0.497)	512747	200.000	230(A)
46 Ethyl Ether	59	4.808	4.808	(0.526)	2549603	200.000	200(A)
119 Isoprene	67	4.870	4.870	(0.532)	3547897	200.000	230(A)
47 Acrolein	56	4.979	4.979	(0.544)	544958	500.000	500(A)
48 Freon TF	101	5.214	5.214	(0.570)	6177926	200.000	220(A)
10 1,1-Dichloroethene	96	5.167	5.167	(0.565)	2772876	200.000	200(A)
7 Acetone	43	5.183	5.183	(0.566)	470530	200.000	180
8 Carbon Disulfide	76	5.511	5.511	(0.602)	7527446	200.000	200(A)
116 Allyl chloride	76	5.651	5.651	(0.618)	1729273	200.000	210(A)
50 Acetonitrile	41	5.651	5.651	(0.618)	5338216	4000.00	3900
6 Methylene Chloride	84	5.807	5.807	(0.635)	2924849	200.000	200(A)

303962

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4614.d
Report Date: 31-Oct-1998 09:18

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
51 TBA	59	5.917	5.917	(0.647)	3464851	4000.00	4100(A)
52 Acrylonitrile	53	6.088	6.088	(0.665)	860756	250.000	260(A)
53 MTBE	73	6.198	6.198	(0.677)	7306340	200.000	200
12 trans-1,2-Dichloroethene	96	6.213	6.213	(0.679)	3172825	200.000	200(A)
122 Allyl alcohol	57	6.728	6.728	(0.735)	702512	5000.00	5400(A)
11 1,1-Dichloroethane	63	6.759	6.759	(0.739)	7116984	200.000	200(A)
57 Vinyl Acetate	43	6.838	6.838	(0.747)	5566170	200.000	200
55 DIPE	45	6.838	6.838	(0.747)	14087092	200.000	200
18 2-Butanone	72	7.524	7.524	(0.822)	222059	200.000	220(A)
13 cis-1,2-Dichloroethene	96	7.571	7.571	(0.828)	3376058	200.000	200
56 Ethyl Acetate	43	7.602	7.602	(0.831)	4397324	400.000	460(A)
104 2,2-Dichloropropane	77	7.602	7.602	(0.831)	4586652	200.000	200
108 Bromochloromethane	128	7.914	7.914	(0.865)	2126056	200.000	200(A)
15 Chloroform	83	7.992	7.992	(0.874)	6267100	200.000	200
20 1,1,1-Trichloroethane	97	8.320	8.320	(0.909)	5571199	200.000	200(A)
59 Cyclohexane	56	8.430	8.430	(0.921)	5222559	200.000	220(A)
92 1,1-Dichloropropene	75	8.524	8.524	(0.932)	3945036	200.000	200(A)
21 Carbon Tetrachloride	117	8.570	8.570	(0.937)	5676734	200.000	210(A)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.680	8.680	(0.949)	3360849	200.000	200
61 Isopropyl Acetate	43	8.789	8.789	(0.961)	10943220	400.000	400(A)
17 1,2-Dichloroethane	62	8.789	8.789	(0.961)	4014002	200.000	200
28 Benzene	78	8.805	8.805	(0.962)	8897258	200.000	190
* 19 Fluorobenzene	96	9.149	9.149	(1.000)	2765353	50.0000	
25 Trichloroethene	95	9.632	9.632	(1.053)	3571551	200.000	200
23 1,2-Dichloropropane	63	9.898	9.898	(1.082)	4361152	200.000	200
120 Methyl methacrylate	69	9.976	9.976	(1.090)	1935044	200.000	200
64 Propyl Acetate	43	10.023	10.023	(1.096)	6390848	400.000	430(A)
109 Dibromomethane	93	10.054	10.054	(1.099)	2992993	200.000	200(A)
95 1,4-Dioxane	88	10.039	10.039	(1.097)	477785	5000.00	5000
22 Bromodichloromethane	83	10.226	10.226	(1.118)	6055338	200.000	200
30 2-Chloroethyl Vinyl Ether	63	10.539	10.539	(1.152)	2399109	200.000	200(A)
118 Epichlorohydrin	57	10.632	10.632	(1.162)	4911526	4000.00	4000(A)
24 cis-1,3-Dichloropropene	75	10.757	10.757	(1.176)	5073328	200.000	200
33 4-Methyl-2-Pentanone	43	10.898	10.898	(1.191)	2440258	200.000	200(A)
$ 37 Toluene-d8 (SUR)	98	11.117	11.117	(0.861)	9240081	200.000	200
38 Toluene	91	11.195	11.195	(0.867)	9084829	200.000	200
29 trans-1,3-Dichloropropene	75	11.398	11.398	(0.883)	3992536	200.000	200(A)
27 1,1,2-Trichloroethane	83	11.632	11.632	(0.901)	2294618	200.000	210(A)
103 1,3-Dichloropropane	76	11.835	11.835	(0.916)	4416476	200.000	210(A)
35 Tetrachloroethene	166	11.882	11.882	(0.920)	3096630	200.000	200(A)
34 2-Hexanone	43	11.882	11.882	(0.920)	1502121	200.000	220(AH)
26 Dibromochloromethane	129	12.133	12.133	(0.940)	4848057	200.000	210(A)
65 Butyl Acetate	43	12.008	12.008	(0.930)	7699237	400.000	470(A)
66 1,2-Dibromoethane	107	12.289	12.289	(0.952)	4253339	200.000	200(A)
* 32 Chlorobenzene-d5	117	12.804	12.804	(1.000)	2205862	50.0000	(H)
39 Chlorobenzene	112	12.836	12.836	(0.994)	7763186	200.000	200(AH)
40 Ethylbenzene	106	12.930	12.930	(1.001)	3424058	200.000	200(AH)

303963

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4614.d
Report Date: 31-Oct-1998 09:18

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
43 m+p-Xylene	106	13.055	13.055	(1.011)	8765043	400.000	410(A)
97 1,1,1,2-Tetrachloroethane	131	12.914	12.914	(1.000)	3715867	200.000	210(AH)
44 o-Xylene	106	13.508	13.508	(1.046)	4329265	200.000	210(AH)
42 Styrene	104	13.508	13.508	(1.046)	7010622	200.000	200(AH)
31 Bromoform	173	13.742	13.742	(1.064)	2650912	200.000	220(AH)
110 Isopropylbenzene	105	13.883	13.883	(1.075)	10408620	200.000	210(A)
$ 41 Bromofluorobenzene (SUR)	174	14.071	14.071	(0.921)	3135743	200.000	200
36 1,1,2,2-Tetrachloroethane	83	14.165	14.165	(0.927)	3191276	200.000	180
99 1,2,3-Trichloropropane	75	14.243	14.243	(0.932)	2553169	200.000	190(H)
107 Bromobenzene	156	14.259	14.259	(0.933)	2921462	200.000	190
112 n-Propylbenzene	91	14.321	14.321	(0.937)	10467976	200.000	190
105 2-Chlorotoluene	91	14.447	14.447	(0.946)	6995164	200.000	190
102 1,3,5-Trimethylbenzene	105	14.478	14.478	(0.948)	8054066	200.000	190
106 4-Chlorotoluene	91	14.556	14.556	(0.953)	8747309	200.000	190
115 tert-Butylbenzene	119	14.838	14.838	(0.971)	7866944	200.000	190
100 1,2,4-Trimethylbenzene	105	14.885	14.885	(0.974)	8105916	200.000	190
114 sec-Butylbenzene	105	15.073	15.073	(0.987)	8752924	200.000	190
113 p-Isopropyltoluene	119	15.198	15.198	(0.995)	7863459	200.000	190
67 1,3-Dichlorobenzene	146	15.229	15.229	(0.997)	3722069	200.000	190
* 91 1,4-Dichlorobenzene-d4	152	15.276	15.276	(1.000)	780655	50.0000	
68 1,4-Dichlorobenzene	146	15.308	15.308	(1.002)	4890628	200.000	200
117 Benzyl chloride	91	15.417	15.417	(1.009)	3786463	200.000	200(A)
111 n-Butylbenzene	91	15.605	15.605	(1.022)	5857982	200.000	200(A)
69 1,2-Dichlorobenzene	146	15.699	15.699	(1.028)	3445096	200.000	190
101 1,2-Dibromo-3-chloropropane	75	16.449	16.449	(1.077)	216780	200.000	190
94 Hexachlorobutadiene	225	17.496	17.496	(1.145)	735996	200.000	210(A)
70 Naphthalene	128	17.621	17.621	(1.153)	871506	200.000	260(AH)
M 14 1,2-Dichloroethene (total)	100				6548883	400.000	400(A)
M 45 Xylene (Total)	100				13094308	600.000	620(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

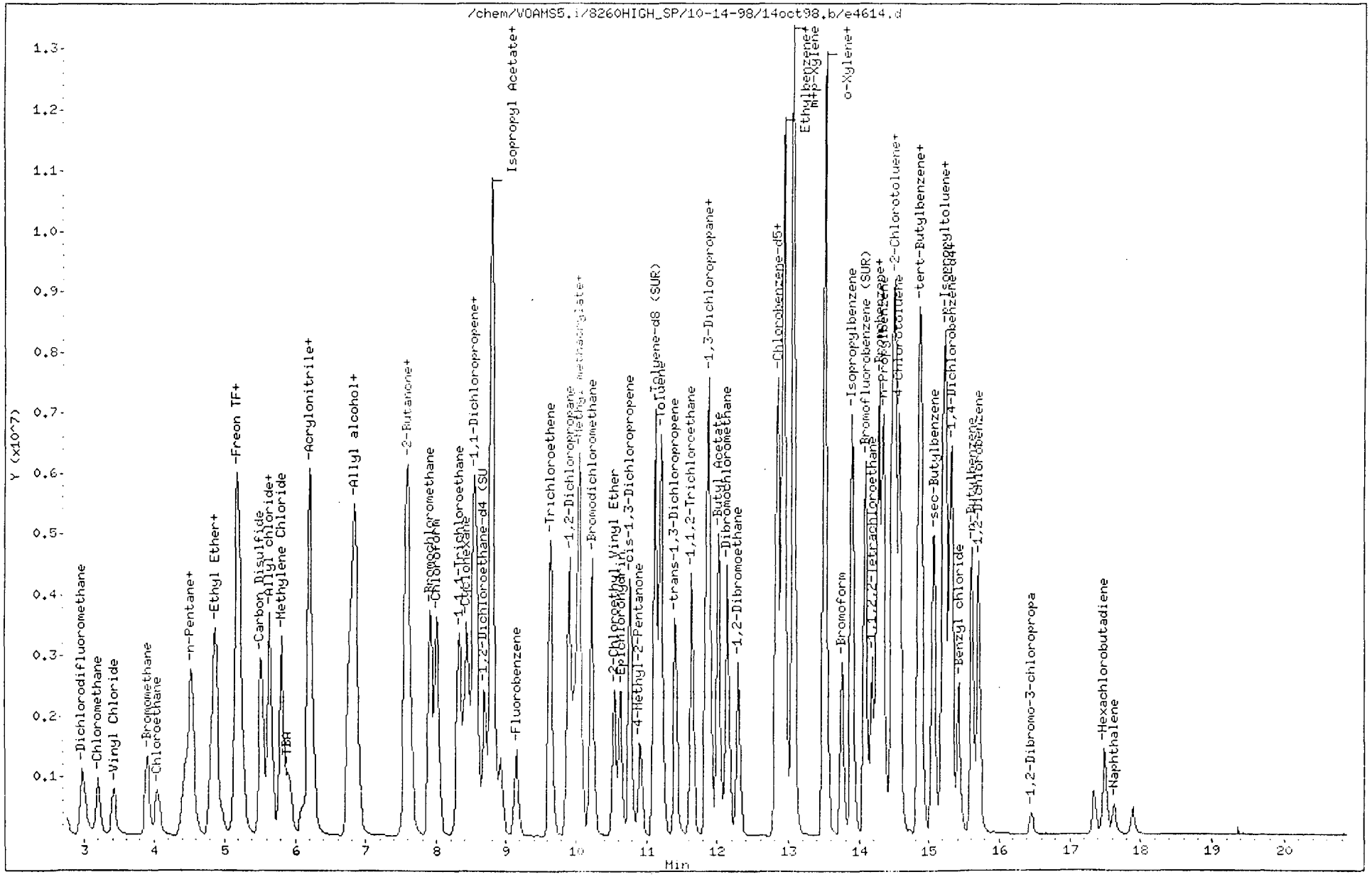
303964

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/14oct98.b/e4614.d
Date : 14-OCT-1998 12:21
Client ID: ESTD200
Sample Info: ESTD200
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS5.i
Operator: VOAMS 5
Column diameter: 0.53

303965

428



VOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date: 10/15/98 Time: 1023

Lab File ID: E4643 Init. Calib. Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Init. Calib. Times: 0933 1221

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.217	0.237	0.1	-9.2	50.0
Bromomethane	0.208	0.215		-3.2	50.0
Vinyl Chloride	0.176	0.200		-13.6	20.0
Chloroethane	0.162	0.183		-12.8	50.0
Methylene Chloride	0.261	0.273		-4.4	50.0
Acetone	0.046	0.042		8.7	50.0
Carbon Disulfide	0.674	0.707		-4.7	50.0
Trichlorofluoromethane	0.430	0.492		-14.4	50.0
1,1-Dichloroethene	0.247	0.262		-5.9	20.0
1,1-Dichloroethane	0.636	0.686	0.1	-7.7	50.0
trans-1,2-Dichloroethene	0.281	0.298		-6.0	50.0
cis-1,2-Dichloroethene	0.305	0.317		-3.9	50.0
Chloroform	0.568	0.588		-3.5	20.0
1,2-Dichloroethane	0.365	0.373		-2.0	50.0
2-Butanone	0.018	0.019		-5.4	50.0
1,1,1-Trichloroethane	0.502	0.522		-3.8	50.0
Carbon Tetrachloride	0.496	0.538		-8.3	50.0
Bromodichloromethane	0.554	0.565		-1.8	50.0
1,2-Dichloropropane	0.400	0.418		-4.5	20.0
cis-1,3-Dichloropropene	0.462	0.480		-3.7	50.0
Trichloroethene	0.328	0.341		-3.8	50.0
Dibromochloromethane	0.524	0.534		-1.9	50.0
1,1,2-Trichloroethane	0.250	0.259		-3.6	50.0
Benzene	0.842	0.835		0.8	50.0
trans-1,3-Dichloropropene	0.440	0.448		-1.8	50.0
2-Chloroethyl Vinyl Ether	0.214	0.216		0.1	50.0
Bromoform	0.271	0.262	0.1	3.3	50.0
4-Methyl-2-Pentanone	0.216	0.207		4.2	50.0
2-Hexanone	0.158	0.152		3.8	50.0
Tetrachloroethene	0.345	0.351		-1.7	50.0
1,1,2,2-Tetrachloroethane	1.109	1.100	0.3	0.8	50.0
Toluene	1.042	1.089		-4.5	20.0
Chlorobenzene	0.870	0.907	0.3	-4.2	50.0
Ethylbenzene	0.380	0.391		-2.7	20.0
Styrene	0.779	0.789		-1.1	50.0
Xylene (Total)	0.481	0.492		-2.1	50.0
Ethyl Ether	0.226	0.225		0.4	50.0

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date: 10/15/98 Time: 1023

Lab File ID: E4643 Init. Calib. Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Init. Calib. Times: 0933 1221

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Acrolein	0.020	0.018		10.0	50.0
Freon TF	0.501	0.546		-8.8	50.0
Isopropanol					50.0
Acetonitrile	0.025	0.025		0.0	50.0
TBA	0.015	0.014		6.7	50.0
Acrylonitrile	0.059	0.056		5.1	50.0
MTBE	0.661	0.645		2.4	50.0
Hexane					50.0
DIPE	1.277	1.308		-2.4	50.0
Ethyl Acetate	0.173	0.186		-7.5	50.0
Vinyl Acetate	0.506	0.504		0.4	50.0
Tetrahydrofuran					50.0
Cyclohexane	0.429	0.447		-4.0	50.0
Isobutanol					50.0
Isopropyl Acetate	0.489	0.480		1.8	50.0
n-Heptane					50.0
n-Butanol					50.0
Propyl Acetate	0.268	0.275		-2.6	50.0
Butyl Acetate	0.371	0.394		-6.0	50.0
1,2-Dibromoethane	0.471	0.471		0.0	50.0
1,3-Dichlorobenzene	1.280	1.344		-5.0	50.0
1,4-Dichlorobenzene	1.582	1.684		-6.4	50.0
1,2-Dichlorobenzene	1.135	1.171		-3.0	50.0
Naphthalene		0.108			50.0
Methylnaphthalene (total)					50.0
Dimethylnaphthalene (total)					50.0
Dichlorodifluoromethane	0.312	0.356		-14.1	50.0
1,1-Dichloropropene	0.355	0.382		-7.6	50.0
1,2,4-Trichlorobenzene		0.071			50.0
Hexachlorobutadiene	0.220	0.194		11.8	50.0
1,4-Dioxane	0.002	0.002		0.0	50.0
Methyl Acrylate					50.0
1,1,1,2-Tetrachloroethane	0.401	0.419		-4.3	50.0
1,2,3-Trichlorobenzene		0.053			50.0
1,2,3-Trichloropropane	0.858	0.913		-6.4	50.0
1,2,4-Trimethylbenzene	2.768	2.911		-5.0	50.0
1,2-Dibromo-3-chloropropane	0.072	0.064		11.1	50.0

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date: 10/15/98 Time: 1023

Lab File ID: E4643 Init. Calib. Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Init. Calib. Times: 0933 1221

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,3,5-Trimethylbenzene	2.767	2.878		-4.0	50.0
1,3-Dichloropropane	0.485	0.499		-2.7	50.0
2,2-Dichloropropane	0.416	0.442		-6.2	50.0
2-Chlorotoluene	2.318	2.512		-8.2	50.0
4-Chlorotoluene	2.947	3.335		-13.0	50.0
Bromobenzene	0.964	1.058		-9.6	50.0
Bromochloromethane	0.191	0.200		-4.7	50.0
Dibromomethane	0.270	0.268		0.7	50.0
Isopropylbenzene	1.100	1.167		-5.9	50.0
n-Butylbenzene	1.869	2.093		-11.8	50.0
n-Propylbenzene	3.489	3.785		-8.3	50.0
p-Isopropyltoluene	2.610	2.884		-10.3	50.0
sec-Butylbenzene	2.947	3.175		-7.7	50.0
tert-Butylbenzene	2.665	2.905		-9.0	50.0
Allyl chloride	0.148	0.157		-5.9	50.0
Benzyl chloride	1.209	1.249		-3.3	50.0
Epichlorohydrin	0.022	0.021		4.5	50.0
Isoprene	0.284	0.313		-10.2	50.0
Methyl methacrylate	0.175	0.161		8.0	50.0
n-Pentane	0.041	0.045		-9.6	50.0
Allyl alcohol	0.002	0.002		0.0	50.0
Amyl Acetate					50.0
1,2-Dichloroethane-d4 (SUR)	0.310	0.314		-1.1	50.0
Toluene-d8 (SUR)	1.065	1.085		-1.7	50.0
Bromofluorobenzene (SUR)	1.027	1.125		-9.5	50.0

303968

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4643.d
Report Date: 16-Oct-98 11:07:19

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4643.d
Lab Smp Id: ESTD288 Client Smp ID: ESTD288
Inj Date : 15-OCT-98 10:23:00
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : ESTD288
Misc Info :
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/8260newHIGH.m
Meth Date : 16-Oct-98 08:34:26 tim Quant Type: ISTD
Cal Date : 14-OCT-98 12:21:00 Cal File: e4614.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: 5/Vo

Name	Value	Description
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
90 Dichlorodifluoromethane	85	2.951	2.967	(0.324)	999763	50	57
1 Chloromethane	50	3.169	3.201	(0.348)	667128	50	55
4 Vinyl Chloride	62	3.372	3.419	(0.370)	561143	50	57
3 Bromomethane	94	3.871	3.903	(0.425)	602873	50	52
5 Chloroethane	64	4.027	4.043	(0.442)	513794	50	56
9 Trichlorofluoromethane	101	4.448	4.464	(0.488)	1383677	50	57
121 n-Pentane	72	4.510	4.543	(0.495)	127494	50	56
46 Ethyl Ether	59	4.775	4.808	(0.524)	632183	50	50
119 Isoprene	67	4.838	4.870	(0.531)	878836	50	55
47 Acrolein	56	4.947	4.979	(0.543)	306550	300	280
48 Freon TF	101	5.181	5.214	(0.569)	1532593	50	54
10 1,1-Dichloroethene	96	5.134	5.167	(0.563)	735681	50	53
7 Acetone	43	5.150	5.183	(0.565)	118527	50	45
8 Carbon Disulfide	76	5.478	5.511	(0.601)	1985762	50	52
116 Allyl chloride	76	5.618	5.651	(0.617)	441883	50	53(T)
50 Acetonitrile	41	5.602	5.651	(0.615)	1403783	1000	1000
6 Methylene Chloride	84	5.774	5.807	(0.634)	766424	50	52
51 TBA	59	5.867	5.917	(0.644)	775395	1000	900

303969

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4643.d
Report Date: 16-Oct-98 11:07:19

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
52 Acrylonitrile	53	6.055	6.088	(0.664)	469431	150	140
53 MTBE	73	6.164	6.198	(0.676)	1810799	50	49
12 trans-1,2-Dichloroethene	96	6.164	6.213	(0.676)	838783	50	53
122 Allyl alcohol	57	6.678	6.728	(0.733)	363179	3000	2800
11 1,1-Dichloroethane	63	6.725	6.759	(0.738)	1926553	50	54
57 Vinyl Acetate	43	6.803	6.838	(0.747)	1414948	50	50
55 DIPE	45	6.803	6.838	(0.747)	3675637	50	51
18 2-Butanone	72	7.489	7.524	(0.822)	52714	50	51
13 cis-1,2-Dichloroethene	96	7.536	7.571	(0.827)	891468	50	52
56 Ethyl Acetate	43	7.567	7.602	(0.830)	1045971	100	110
104 2,2-Dichloropropane	77	7.551	7.602	(0.829)	1242988	50	53
108 Bromochloromethane	128	7.863	7.914	(0.863)	561877	50	52
15 Chloroform	83	7.957	7.992	(0.873)	1652277	50	52
20 1,1,1-Trichloroethane	97	8.269	8.320	(0.907)	1467976	50	52
59 Cyclohexane	56	8.394	8.430	(0.921)	1255442	50	52
92 1,1-Dichloropropene	75	8.488	8.524	(0.931)	1073241	50	54
21 Carbon Tetrachloride	117	8.519	8.570	(0.935)	1510936	50	54
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.644	8.680	(0.949)	883106	50	51
61 Isopropyl Acetate	43	8.753	8.789	(0.961)	2696414	100	98
17 1,2-Dichloroethane	62	8.753	8.789	(0.961)	1048180	50	51
28 Benzene	78	8.769	8.805	(0.962)	2345129	50	50
* 19 Fluorobenzene	96	9.112	9.149	(1.000)	2809110	50	
25 Trichloroethene	95	9.596	9.632	(1.053)	957825	50	52
23 1,2-Dichloropropane	63	9.861	9.898	(1.082)	1175616	50	52
120 Methyl methacrylate	69	9.939	9.976	(1.091)	451180	50	46
64 Propyl Acetate	43	10.001	10.023	(1.098)	1546331	100	100
109 Dibromomethane	93	10.017	10.054	(1.099)	754145	50	50
95 1,4-Dioxane	88	10.001	10.039	(1.098)	266486	3000	2700
22 Bromodichloromethane	83	10.189	10.226	(1.118)	1586485	50	51
30 2-Chloroethyl Vinyl Ether	63	10.516	10.539	(1.154)	605490	50	50
118 Epichlorohydrin	57	10.594	10.632	(1.163)	1199732	1000	960
24 cis-1,3-Dichloropropene	75	10.735	10.757	(1.178)	1349712	50	52
33 4-Methyl-2-Pentanone	43	10.875	10.898	(1.193)	582284	50	48
$ 37 Toluene-d8 (SUR)	98	11.078	11.117	(0.868)	2472844	50	51
38 Toluene	91	11.172	11.195	(0.875)	2480814	50	52
29 trans-1,3-Dichloropropene	75	11.375	11.398	(0.891)	1021400	50	51
27 1,1,2-Trichloroethane	83	11.609	11.632	(0.910)	590423	50	52
103 1,3-Dichloropropane	76	11.812	11.835	(0.925)	1136118	50	51
35 Tetrachloroethene	166	11.843	11.882	(0.928)	799590	50	51
34 2-Hexanone	43	11.843	11.882	(0.928)	345511	50	48
26 Dibromochloromethane	129	12.093	12.133	(0.947)	1216368	50	51
65 Butyl Acetate	43	11.984	12.008	(0.939)	1797087	100	110
66 1,2-Dibromoethane	107	12.249	12.289	(0.960)	1074020	50	50
* 32 Chlorobenzene-d5	117	12.764	12.804	(1.000)	2278567	50	
39 Chlorobenzene	112	12.810	12.836	(1.004)	2065986	50	52
40 Ethylbenzene	106	12.904	12.930	(1.011)	890818	50	51
43 m+p-Xylene	106	13.030	13.055	(1.021)	2238517	100	100

303970

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4643.d
Report Date: 16-Oct-98 11:07:19

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	97 1,1,1,2-Tetrachloroethane	131	12.873	12.914	(1.009)	955389	50	52
	44 o-Xylene	106	13.466	13.508	(1.055)	1121519	50	52
	42 Styrene	104	13.482	13.508	(1.056)	1798926	50	51
	31 Bromoform	173	13.716	13.742	(1.075)	596199	50	48
	110 Isopropylbenzene	105	13.857	13.883	(1.086)	2658862	50	53
$	41 Bromofluorobenzene (SUR)	174	14.044	14.071	(0.921)	783084	50	55
	36 1,1,2,2-Tetrachloroethane	83	14.138	14.165	(0.927)	765831	50	50
	99 1,2,3-Trichloropropane	75	14.200	14.243	(0.931)	635890	50	53
	107 Bromobenzene	156	14.232	14.259	(0.933)	736677	50	55
	112 n-Propylbenzene	91	14.294	14.321	(0.937)	2634867	50	54
	105 2-Chlorotoluene	91	14.419	14.447	(0.946)	1748583	50	54
	102 1,3,5-Trimethylbenzene	105	14.451	14.478	(0.948)	2003121	50	52
	106 4-Chlorotoluene	91	14.513	14.556	(0.952)	2321342	50	56
	115 tert-Butylbenzene	119	14.810	14.838	(0.971)	2022187	50	54
	100 1,2,4-Trimethylbenzene	105	14.857	14.885	(0.974)	2026213	50	52
	114 sec-Butylbenzene	105	15.029	15.073	(0.986)	2210046	50	54
	113 p-Isopropyltoluene	119	15.154	15.198	(0.994)	2007898	50	55
	67 1,3-Dichlorobenzene	146	15.201	15.229	(0.997)	935689	50	52
*	91 1,4-Dichlorobenzene-d4	152	15.248	15.276	(1.000)	696113	50	
	68 1,4-Dichlorobenzene	146	15.280	15.308	(1.002)	1172241	50	53
	117 Benzyl chloride	91	15.389	15.417	(1.009)	869690	50	52
	111 n-Butylbenzene	91	15.577	15.605	(1.022)	1456978	50	56
	69 1,2-Dichlorobenzene	146	15.671	15.699	(1.028)	815020	50	52
	101 1,2-Dibromo-3-chloropropane	75	16.421	16.449	(1.077)	44886	50	44
	93 1,2,4-Trichlorobenzene	180	17.296	17.339	(1.134)	49418	50	(a)
	94 Hexachlorobutadiene	225	17.453	17.496	(1.145)	135055	50	44
	70 Naphthalene	128	17.594	17.621	(1.154)	75473	50	(a)
	98 1,2,3-Trichlorobenzene	180	17.845	17.887	(1.170)	36812	50	(a)
M	14 1,2-Dichloroethene (total)	100				1730251	100	100
M	45 Xylene (Total)	100				3360036	150	150

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

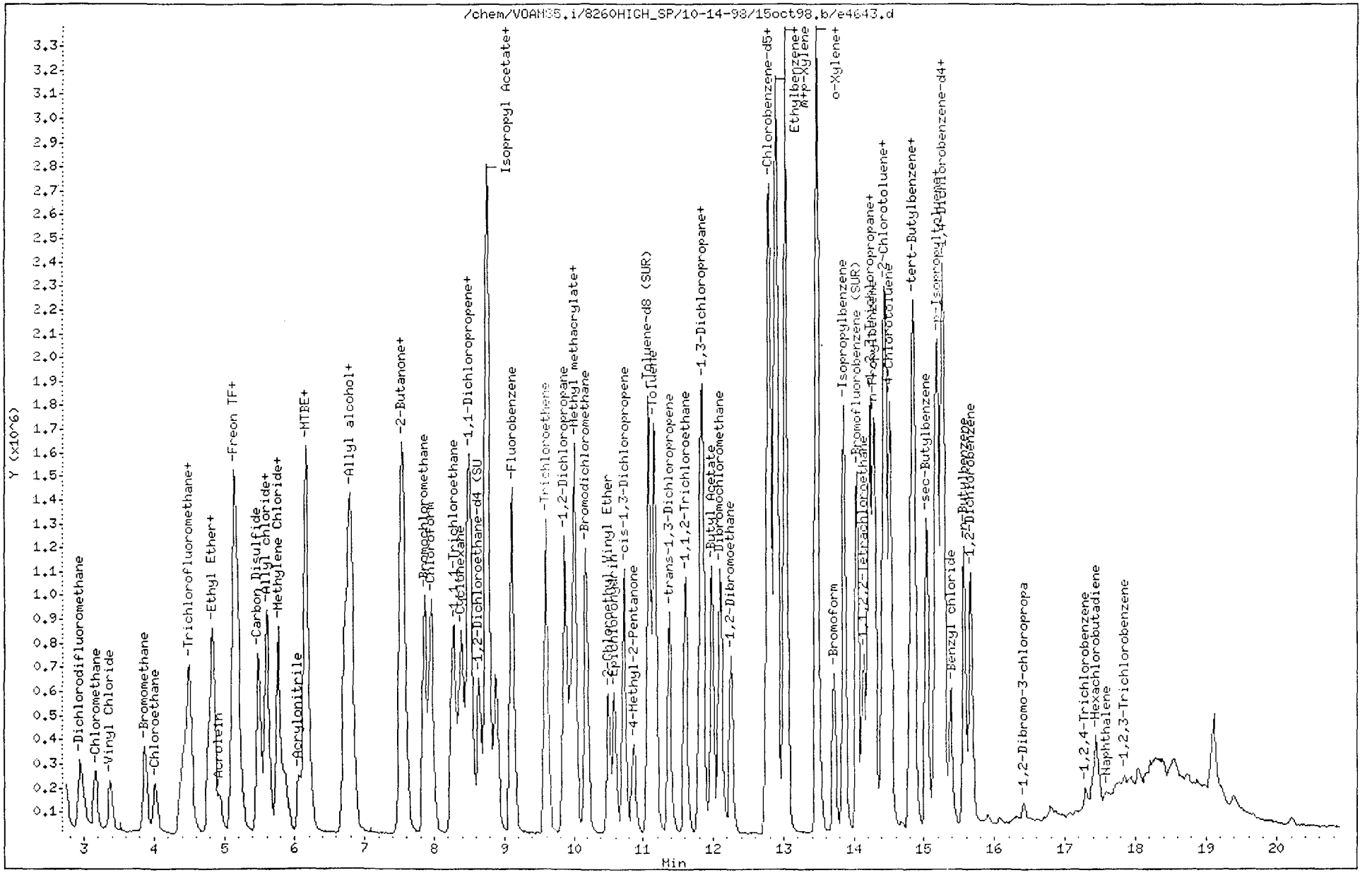
303971

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/15oct98.b/e4643.d
Date : 15-OCT-1998 10:23
Client ID: ESTD288
Sample Info: ESTD288
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS5.i
Operator: VOAMS 5
Column diameter: 0.53

303972

435



VOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date: 10/16/98 Time: 1020

Lab File ID: E4668 Init. Calib. Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Init. Calib. Times: 0933 1221

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Chloromethane	0.217	0.235	0.1	-8.1	50.0
Bromomethane	0.208	0.207		0.5	50.0
Vinyl Chloride	0.176	0.191		-8.5	20.0
Chloroethane	0.162	0.172		-6.0	50.0
Methylene Chloride	0.261	0.264		-1.1	50.0
Acetone	0.046	0.042		8.7	50.0
Carbon Disulfide	0.674	0.690		-2.2	50.0
Trichlorofluoromethane	0.430	0.458		-6.5	50.0
1,1-Dichloroethene	0.247	0.249		0.1	20.0
1,1-Dichloroethane	0.636	0.660	0.1	-3.6	50.0
trans-1,2-Dichloroethene	0.281	0.286		-1.6	50.0
cis-1,2-Dichloroethene	0.305	0.304		0.3	50.0
Chloroform	0.568	0.577		-1.4	20.0
1,2-Dichloroethane	0.365	0.362		0.8	50.0
2-Butanone	0.018	0.017		5.6	50.0
1,1,1-Trichloroethane	0.502	0.525		-4.4	50.0
Carbon Tetrachloride	0.496	0.530		-6.8	50.0
Bromodichloromethane	0.554	0.549		0.9	50.0
1,2-Dichloropropane	0.400	0.399		0.2	20.0
cis-1,3-Dichloropropene	0.462	0.454		1.7	50.0
Trichloroethene	0.328	0.331		0.1	50.0
Dibromochloromethane	0.524	0.510		2.7	50.0
1,1,2-Trichloroethane	0.250	0.250		0.0	50.0
Benzene	0.842	0.817		3.0	50.0
trans-1,3-Dichloropropene	0.440	0.434		1.4	50.0
2-Chloroethyl Vinyl Ether	0.214	0.195		8.9	50.0
Bromoform	0.271	0.253	0.1	6.6	50.0
4-Methyl-2-Pentanone	0.216	0.188		13.0	50.0
2-Hexanone	0.158	0.141		10.8	50.0
Tetrachloroethene	0.345	0.339		1.7	50.0
1,1,2,2-Tetrachloroethane	1.109	1.035	0.3	6.7	50.0
Toluene	1.042	1.072		-2.7	20.0
Chlorobenzene	0.870	0.894	0.3	-2.6	50.0
Ethylbenzene	0.380	0.389		-2.2	20.0
Styrene	0.779	0.783		-0.0	50.0
Xylene (Total)	0.481	0.490		-1.7	50.0
Ethyl Ether	0.226	0.204		9.7	50.0

303973

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date: 10/16/98 Time: 1020

Lab File ID: E4668 Init. Calib. Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Init. Calib. Times: 0933 1221

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Acrolein	0.020	0.016		20.0	50.0
Freon TF	0.501	0.513		-2.2	50.0
Isopropanol					50.0
Acetonitrile	0.025	0.025		0.0	50.0
TBA	0.015	0.012		20.0	50.0
Acrylonitrile	0.059	0.053		10.2	50.0
MTBE	0.661	0.613		7.3	50.0
Hexane					50.0
DIPE	1.277	1.290		-1.0	50.0
Ethyl Acetate	0.173	0.171		1.2	50.0
Vinyl Acetate	0.506	0.504		0.4	50.0
Tetrahydrofuran					50.0
Cyclohexane	0.429	0.426		0.7	50.0
Isobutanol					50.0
Isopropyl Acetate	0.489	0.449		8.2	50.0
n-Heptane					50.0
n-Butanol					50.0
Propyl Acetate	0.268	0.253		5.6	50.0
Butyl Acetate	0.371	0.377		-1.6	50.0
1,2-Dibromoethane	0.471	0.448		4.9	50.0
1,3-Dichlorobenzene	1.280	1.305		-1.8	50.0
1,4-Dichlorobenzene	1.582	1.585		-0.0	50.0
1,2-Dichlorobenzene	1.135	1.143		0.1	50.0
Naphthalene					50.0
Methylnaphthalene (total)					50.0
Dimethylnaphthalene (total)					50.0
Dichlorodifluoromethane	0.312	0.341		-9.1	50.0
1,1-Dichloropropene	0.355	0.371		-4.5	50.0
1,2,4-Trichlorobenzene					50.0
Hexachlorobutadiene	0.220	0.223		-1.2	50.0
1,4-Dioxane	0.002	0.002		0.0	50.0
Methyl Acrylate					50.0
1,1,1,2-Tetrachloroethane	0.401	0.418		-4.2	50.0
1,2,3-Trichlorobenzene					50.0
1,2,3-Trichloropropane	0.858	0.878		-2.3	50.0
1,2,4-Trimethylbenzene	2.768	3.011		-8.6	50.0
1,2-Dibromo-3-chloropropane	0.072	0.060		16.7	50.0

VOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8260B

Instrument ID: VOAMS5 Calibration Date: 10/16/98 Time: 1020

Lab File ID: E4668 Init. Calib. Date(s): 10/14/98 10/14/98

Heated Purge: (Y/N) N Init. Calib. Times: 0933 1221

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,3,5-Trimethylbenzene	2.767	3.034		-9.6	50.0
1,3-Dichloropropane	0.485	0.476		1.8	50.0
2,2-Dichloropropane	0.416	0.439		-5.5	50.0
2-Chlorotoluene	2.318	2.614		-12.6	50.0
4-Chlorotoluene	2.947	3.244		-9.90	50.0
Bromobenzene	0.964	1.021		-5.9	50.0
Bromochloromethane	0.191	0.188		1.6	50.0
Dibromomethane	0.270	0.256		5.2	50.0
Isopropylbenzene	1.100	1.185		-7.7	50.0
n-Butylbenzene	1.869	2.306		-23.2	50.0
n-Propylbenzene	3.489	3.912		-12.1	50.0
p-Isopropyltoluene	2.610	3.054		-17.0	50.0
sec-Butylbenzene	2.947	3.373		-14.4	50.0
tert-Butylbenzene	2.665	3.008		-12.7	50.0
Allyl chloride	0.148	0.154		-4.0	50.0
Benzyl chloride	1.209	1.193		1.3	50.0
Epichlorohydrin	0.022	0.019		13.6	50.0
Isoprene	0.284	0.286		0.1	50.0
Methyl methacrylate	0.175	0.146		16.6	50.0
n-Pentane	0.041	0.041		0.0	50.0
Allyl alcohol	0.002	0.002		0.0	50.0
Amyl Acetate					50.0
1,2-Dichloroethane-d4 (SUR)	0.310	0.306		1.3	50.0
Toluene-d8 (SUR)	1.065	1.099		-3.0	50.0
Bromofluorobenzene (SUR)	1.027	1.116		-8.5	50.0

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4668.d
Report Date: 16-Oct-98 11:05:14

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4668.d
Lab Smp Id: ESTD289 Client Smp ID: ESTD289
Inj Date : 16-OCT-98 10:20:00
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : ESTD289
Misc Info :
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/8260newHIGH.m
Meth Date : 16-Oct-98 10:58:35 Quant Type: ISTD
Cal Date : 14-OCT-98 12:21:00 Cal File: e4614.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: 5/Vo

Name	Value	Description
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
90 Dichlorodifluoromethane	85	2.936	2.967	(0.323)	933820	50	55
1 Chloromethane	50	3.139	3.201	(0.346)	642785	50	54
4 Vinyl Chloride	62	3.357	3.419	(0.370)	523070	50	54
3 Bromomethane	94	3.840	3.903	(0.423)	566094	50	50
5 Chloroethane	64	3.996	4.043	(0.440)	471580	50	53
9 Trichlorofluoromethane	101	4.417	4.464	(0.486)	1252251	50	53
121 n-Pentane	72	4.495	4.543	(0.495)	112855	50	51
46 Ethyl Ether	59	4.760	4.808	(0.524)	556639	50	45
119 Isoprene	67	4.807	4.870	(0.529)	783505	50	50
47 Acrolein	56	4.916	4.979	(0.541)	268981	300	250
48 Freon TF	101	5.150	5.214	(0.567)	1402918	50	51
10 1,1-Dichloroethene	96	5.119	5.167	(0.564)	680597	50	50
7 Acetone	43	5.119	5.183	(0.564)	115130	50	45
8 Carbon Disulfide	76	5.447	5.511	(0.600)	1886561	50	51
116 Allyl chloride	76	5.587	5.651	(0.615)	422702	50	52(T)
50 Acetonitrile	41	5.587	5.651	(0.615)	1372079	1000	1000
6 Methylene Chloride	84	5.743	5.807	(0.632)	722273	50	51
51 TBA	59	5.852	5.917	(0.644)	685777	1000	820

303976

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4668.d
Report Date: 16-Oct-98 11:05:14

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
52 Acrylonitrile	53	6.024	6.088	(0.663)	431824	150	130
53 MTBE	73	6.133	6.198	(0.675)	1677617	50	46
12 trans-1,2-Dichloroethene	96	6.133	6.213	(0.675)	782487	50	51
122 Allyl alcohol	57	6.647	6.728	(0.732)	341777	3000	2700
11 1,1-Dichloroethane	63	6.694	6.759	(0.737)	1804616	50	52
57 Vinyl Acetate	43	6.772	6.838	(0.746)	1377606	50	50
55 DIPE	45	6.772	6.838	(0.746)	3528888	50	50
18 2-Butanone	72	7.458	7.524	(0.821)	45729	50	45
13 cis-1,2-Dichloroethene	96	7.505	7.571	(0.826)	831424	50	50
56 Ethyl Acetate	43	7.536	7.602	(0.830)	934982	100	99
104 2,2-Dichloropropane	77	7.520	7.602	(0.828)	1200925	50	53
108 Bromochloromethane	128	7.832	7.914	(0.862)	514779	50	49
15 Chloroform	83	7.926	7.992	(0.873)	1578768	50	51
20 1,1,1-Trichloroethane	97	8.238	8.320	(0.907)	1435074	50	52
59 Cyclohexane	56	8.363	8.430	(0.921)	1164572	50	50
92 1,1-Dichloropropene	75	8.457	8.524	(0.931)	1015471	50	52
21 Carbon Tetrachloride	117	8.488	8.570	(0.935)	1450904	50	53
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.613	8.680	(0.948)	836327	50	49
61 Isopropyl Acetate	43	8.722	8.789	(0.960)	2455466	100	92
17 1,2-Dichloroethane	62	8.722	8.789	(0.960)	990251	50	50
28 Benzene	78	8.738	8.805	(0.962)	2235249	50	48
* 19 Fluorobenzene	96	9.081	9.149	(1.000)	2735045	50	
25 Trichloroethene	95	9.565	9.632	(1.053)	904920	50	50
23 1,2-Dichloropropane	63	9.830	9.898	(1.082)	1091955	50	50
120 Methyl methacrylate	69	9.908	9.976	(1.091)	400183	50	42
64 Propyl Acetate	43	9.970	10.023	(1.098)	1382024	100	94
109 Dibromomethane	93	9.986	10.054	(1.100)	701017	50	47
95 1,4-Dioxane	88	9.970	10.039	(1.098)	251968	3000	2700
22 Bromodichloromethane	83	10.158	10.226	(1.119)	1501343	50	50
30 2-Chloroethyl Vinyl Ether	63	10.485	10.539	(1.155)	533483	50	46
118 Epichlorohydrin	57	10.563	10.632	(1.163)	1066332	1000	880
24 cis-1,3-Dichloropropene	75	10.704	10.757	(1.179)	1243192	50	49
33 4-Methyl-2-Pentanone	43	10.844	10.898	(1.194)	513289	50	43
$ 37 Toluene-d8 (SUR)	98	11.047	11.117	(0.867)	2386133	50	52
38 Toluene	91	11.141	11.195	(0.874)	2329261	50	51
29 trans-1,3-Dichloropropene	75	11.344	11.398	(0.890)	942665	50	49
27 1,1,2-Trichloroethane	83	11.578	11.632	(0.908)	542626	50	50
103 1,3-Dichloropropane	76	11.781	11.835	(0.924)	1034446	50	49
35 Tetrachloroethene	166	11.812	11.882	(0.927)	735800	50	49
34 2-Hexanone	43	11.828	11.882	(0.928)	306615	50	45
26 Dibromochloromethane	129	12.078	12.133	(0.947)	1108022	50	49
65 Butyl Acetate	43	11.953	12.008	(0.938)	1636432	100	100
66 1,2-Dibromoethane	107	12.218	12.289	(0.958)	972156	50	47
* 32 Chlorobenzene-d5	117	12.748	12.804	(1.000)	2171695	50	
39 Chlorobenzene	112	12.779	12.836	(1.002)	1941527	50	51
40 Ethylbenzene	106	12.873	12.930	(1.010)	844851	50	51
43 m+p-Xylene	106	12.998	13.055	(1.020)	2129029	100	100

303977

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4668.d
Report Date: 16-Oct-98 11:05:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
	97 1,1,1,2-Tetrachloroethane	131	12.858	12.914	(1.009)	908752	50	52
	44 o-Xylene	106	13.435	13.508	(1.054)	1062315	50	51
	42 Styrene	104	13.451	13.508	(1.055)	1700354	50	50
	31 Bromoform	173	13.685	13.742	(1.073)	549052	50	47
	110 Isopropylbenzene	105	13.825	13.883	(1.084)	2573544	50	54
$	41 Bromofluorobenzene (SUR)	174	14.013	14.071	(0.920)	744929	50	54
	36 1,1,2,2-Tetrachloroethane	83	14.107	14.165	(0.926)	690672	50	47
	99 1,2,3-Trichloropropane	75	14.185	14.243	(0.931)	585948	50	51
	107 Bromobenzene	156	14.200	14.259	(0.932)	681337	50	53
	112 n-Propylbenzene	91	14.263	14.321	(0.936)	2611071	50	56
	105 2-Chlorotoluene	91	14.388	14.447	(0.945)	1745047	50	56
	102 1,3,5-Trimethylbenzene	105	14.420	14.478	(0.947)	2025247	50	55
	106 4-Chlorotoluene	91	14.498	14.556	(0.952)	2165101	50	55
	115 tert-Butylbenzene	119	14.795	14.838	(0.971)	2007935	50	56
	100 1,2,4-Trimethylbenzene	105	14.826	14.885	(0.973)	2009641	50	54
	114 sec-Butylbenzene	105	15.013	15.073	(0.986)	2251672	50	57
	113 p-Isopropyltoluene	119	15.138	15.198	(0.994)	2038715	50	58
	67 1,3-Dichlorobenzene	146	15.170	15.229	(0.996)	871170	50	51
*	91 1,4-Dichlorobenzene-d4	152	15.232	15.276	(1.000)	667505	50	
	68 1,4-Dichlorobenzene	146	15.248	15.308	(1.001)	1057771	50	50
	117 Benzyl chloride	91	15.358	15.417	(1.008)	796523	50	49
	111 n-Butylbenzene	91	15.545	15.605	(1.021)	1539620	50	62
	69 1,2-Dichlorobenzene	146	15.639	15.699	(1.027)	763247	50	50
	101 1,2-Dibromo-3-chloropropane	75	16.388	16.449	(1.076)	40292	50	42
	94 Hexachlorobutadiene	225	17.434	17.496	(1.145)	149183	50	51
M	14 1,2-Dichloroethene (total)	100				1613911	100	100
M	45 Xylene (Total)	100				3191344	150	150

QC Flag Legend

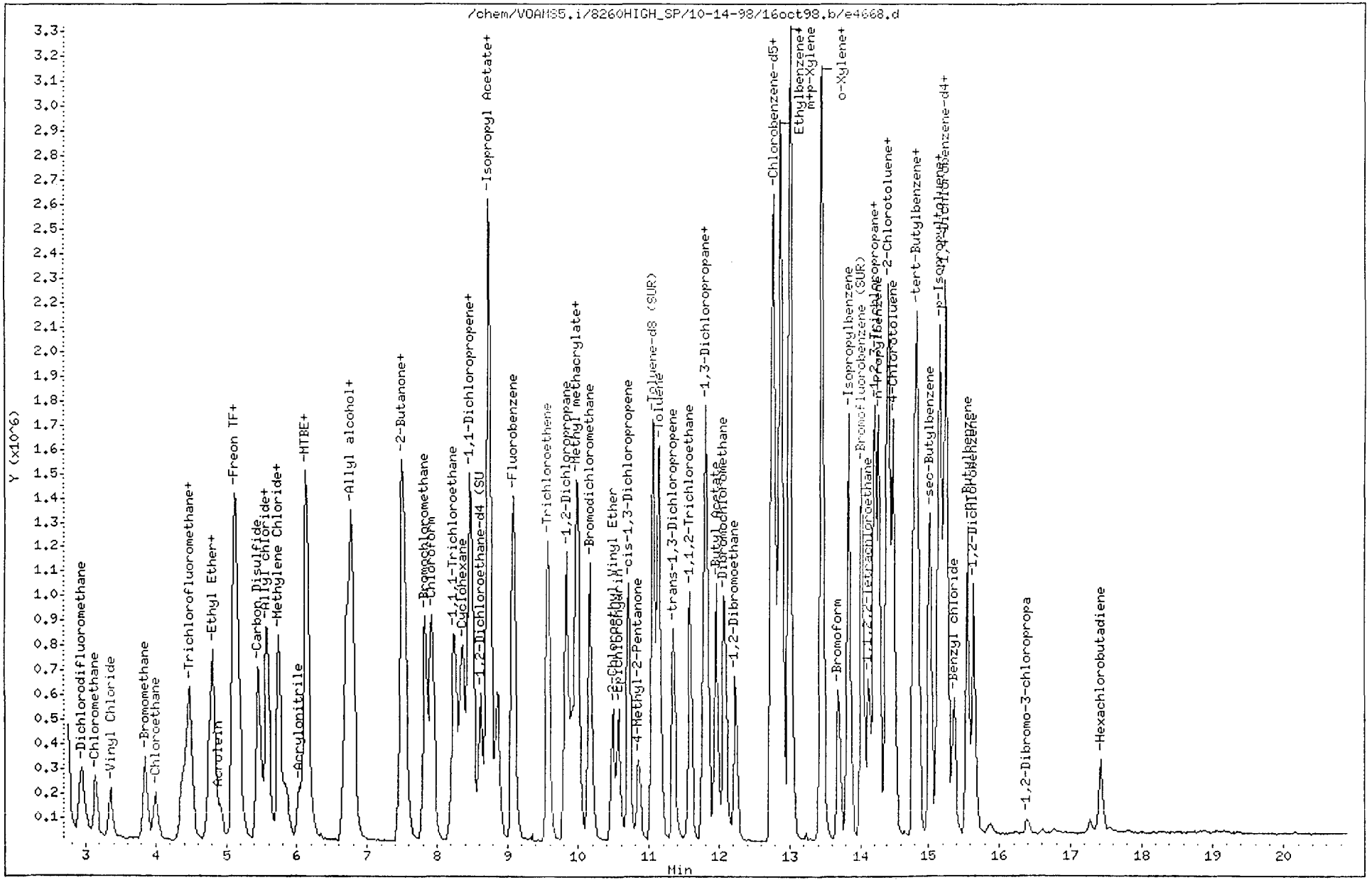
T - Target compound detected outside RT window.

303978

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/16oct98.b/e4668.d
Date : 16-OCT-1998 10:20
Client ID: ESTD289
Sample Info: ESTD289
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS5.i
Operator: VOAMS 5
Column diameter: 0.53

303979



442

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 09/28/98 09/28/98

Calibration Time(s): 1257 1653

LAB FILE ID: RRF5: S7732 RRF20: S7730 RRF50: S7727
RRF80: S7729 RRF120: S7728

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Phenol	2.346	2.269	2.026	1.825	1.655
2-Chlorophenol	1.382	1.402	1.344	1.271	1.224
2-Methylphenol	1.449	1.454	1.352	1.272	1.226
4-Methylphenol	1.476	1.375	1.193	1.041	0.932
2-Nitrophenol	0.252	0.269	0.255	0.247	0.229
2,4-Dimethylphenol	0.388	0.386	0.366	0.349	0.324
2,4-Dichlorophenol	0.365	0.371	0.346	0.339	0.299
4-Chloro-3-methylphenol	0.383	0.373	0.348	0.337	0.299
2,4,6-Trichlorophenol	0.380	0.384	0.364	0.349	0.325
2,4,5-Trichlorophenol	0.411	0.408	0.384	0.370	0.321
2,4-Dinitrophenol	0.223	0.293	0.297	0.295	0.286
4-Nitrophenol	0.255	0.256	0.255	0.252	0.249
4,6-Dinitro-2-methylphenol	0.175	0.182	0.178	0.175	0.169
Pentachlorophenol	0.164	0.168	0.161	0.154	0.153
Benzoic Acid	0.172	0.260	0.248	0.289	0.258
N-Nitrosodimethylamine	0.947	1.047	1.073	1.045	1.009
bis(2-Chloroethyl)ether	1.966	1.704	1.634	1.541	1.493
1,3-Dichlorobenzene	1.780	1.646	1.489	1.431	1.340
1,4-Dichlorobenzene	1.653	1.609	1.449	1.369	1.273
1,2-Dichlorobenzene	1.537	1.596	1.438	1.355	1.194
bis(2-chloroisopropyl)ether	2.149	1.882	1.851	1.680	1.625
N-Nitroso-di-n-propylamine	0.985	0.918	0.830	0.778	0.751
Hexachloroethane	0.649	0.629	0.588	0.560	0.521
Nitrobenzene	0.646	0.561	0.502	0.468	0.436
Isophorone	0.900	0.875	0.861	0.853	0.824
bis(2-Chloroethoxy)methane	0.635	0.498	0.458	0.451	0.415
1,2,4-Trichlorobenzene	0.448	0.354	0.327	0.319	0.292
Naphthalene	1.214	1.078	0.985	0.910	0.818
4-Chloroaniline	0.570	0.529	0.486	0.454	0.416
Hexachlorobutadiene	0.146	0.147	0.136	0.126	0.111
2-Methylnaphthalene	0.864	0.787	0.684	0.645	0.581
Hexachlorocyclopentadiene	0.242	0.209	0.216	0.214	0.207
2-Chloronaphthalene	1.361	1.248	1.141	1.051	0.967
2-Nitroaniline	0.413	0.432	0.372	0.343	0.324
Dimethylphthalate	1.678	1.604	1.467	1.369	1.278
Acenaphthylene	2.180	2.154	1.898	1.737	1.578
2,6-Dinitrotoluene	0.368	0.403	0.382	0.369	0.356
3-Nitroaniline	0.445	0.293	0.292	0.284	0.265
Acenaphthene	1.340	1.254	1.099	1.015	0.904

303980

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 09/28/98 09/28/98

Calibration Time(s): 1257 1653

LAB FILE ID: RRF5: S7732 RRF20: S7730 RRF50: S7727
RRF80: S7729 RRF120: S7728

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Dibenzofuran	2.011	1.796	1.585	1.485	1.298
2,4-Dinitrotoluene	0.601	0.564	0.533	0.518	0.471
Diethylphthalate	1.992	1.581	1.443	1.368	1.207
4-Chlorophenyl-phenylether	0.597	0.544	0.480	0.418	0.337
Fluorene	1.604	1.385	1.165	1.072	0.911
4-Nitroaniline	0.459	0.442	0.430	0.420	0.390
N-Nitrosodiphenylamine	0.755	0.622	0.574	0.541	0.503
4-Bromophenyl-phenylether	0.234	0.203	0.182	0.170	0.157
Hexachlorobenzene	0.286	0.248	0.220	0.214	0.197
Phenanthrene	1.386	1.205	1.052	0.970	0.878
Anthracene	1.345	1.296	1.079	0.992	0.881
Carbazole	1.443	1.278	1.106	1.038	0.951
Di-n-butylphthalate	2.000	1.711	1.441	1.321	1.178
Fluoranthene	1.258	1.086	0.903	0.865	0.767
Pyrene	1.807	1.734	1.531	1.493	1.375
Benzidine	0.874	0.778	0.460	0.596	0.526
Butylbenzylphthalate	1.385	1.245	1.095	1.086	1.007
3,3'-Dichlorobenzidine	0.622	0.627	0.565	0.550	0.445
Benzo(a)anthracene	1.599	1.358	1.259	1.219	1.094
Chrysene	1.318	1.275	1.187	1.160	1.068
bis(2-Ethylhexyl)phthalate	1.572	1.625	1.340	1.212	0.990
Di-n-octylphthalate	2.610	2.646	2.393	2.310	2.210
Benzo(b)fluoranthene	1.522	1.377	1.256	1.345	1.430
Benzo(k)fluoranthene	1.556	1.414	1.306	1.320	1.057
Benzo(a)pyrene	1.358	1.332	1.250	1.281	1.248
Indeno(1,2,3-cd)pyrene	1.243	1.290	1.230	1.337	1.330
Dibenz(a,h)anthracene	1.235	1.249	1.180	1.252	1.218
Benzo(g,h,i)perylene	1.322	1.366	1.292	1.326	1.216
Pyridine	1.381	1.545	1.582	1.566	1.607
Aniline	2.595	2.503	2.244	2.045	1.493
Benzyl Alcohol	1.115	1.100	1.075	0.987	0.951
1,2-Diphenylhydrazine	1.158	0.966	0.866	0.789	0.724
Diphenyl	1.776	1.668	1.443	1.324	1.146
Diphenyl Ether	0.992	0.868	0.783	0.732	0.672
Acetophenone	2.193	1.901	1.626	1.509	1.451
1,4-Dioxane	0.638	0.605	0.562	0.559	0.550
N,N-Dimethylaniline	2.259	2.044	1.783	1.599	1.515
2-Fluorophenol (SUR)	1.426	1.480	1.490	1.388	1.365

303981

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2

Calibration Date(s): 09/28/98 09/28/98

Calibration Time(s): 1257 1653

LAB FILE ID: RRF5: S7732 RRF20: S7730 RRF50: S7727
RRF80: S7729 RRF120: S7728

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Phenol-d5 (SUR)	2.034	2.040	1.991	1.871	1.756
2,4,6-Tribromophenol (SUR)	0.266	0.268	0.245	0.243	0.222
Nitrobenzene-d5 (SUR)	0.417	0.427	0.418	0.408	0.380
2-Fluorobiphenyl (SUR)	1.552	1.466	1.278	1.196	1.068
Terphenyl-d14 (SUR)	1.208	1.167	1.036	0.947	0.847

303982

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 09/28/98 09/28/98

Calibration Time(s): 1257 1653

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol	AVRG	2.02447480	14.4*
2-Chlorophenol	AVRG	1.32461449	5.7*
2-Methylphenol	AVRG	1.35057565	7.6*
4-Methylphenol	AVRG	1.20361143	18.8*
2-Nitrophenol	AVRG	0.25051423	5.8*
2,4-Dimethylphenol	AVRG	0.36268998	7.4*
2,4-Dichlorophenol	AVRG	0.34394838	8.2*
4-Chloro-3-methylphenol	AVRG	0.34824697	9.5*
2,4,6-Trichlorophenol	AVRG	0.36030413	6.6*
2,4,5-Trichlorophenol	AVRG	0.37898461	9.6*
2,4-Dinitrophenol	AVRG	0.27905642	11.2**
4-Nitrophenol	AVRG	0.25344172	1.1**
4,6-Dinitro-2-methylphenol	AVRG	0.17582622	2.8*
Pentachlorophenol	AVRG	0.15988944	3.8*
Benzoic Acid	AVRG	0.24541308	17.8*
N-Nitrosodimethylamine	AVRG	1.02431803	4.8*
bis(2-Chloroethyl)ether	AVRG	1.66753986	11.2*
1,3-Dichlorobenzene	AVRG	1.53727389	11.4*
1,4-Dichlorobenzene	AVRG	1.47077605	10.9*
1,2-Dichlorobenzene	AVRG	1.42401683	11.1*
bis(2-chloroisopropyl)ether	AVRG	1.83747882	11.2*
N-Nitroso-di-n-propylamine	AVRG	0.85248131	11.4**
Hexachloroethane	AVRG	0.58929998	8.8*
Nitrobenzene	AVRG	0.52259530	15.9*
Isophorone	AVRG	0.86286471	3.2*
bis(2-Chloroethoxy)methane	AVRG	0.49154076	17.4*
1,2,4-Trichlorobenzene	AVRG	0.34807365	17.2*
Naphthalene	AVRG	1.00106144	15.3*
4-Chloroaniline	AVRG	0.49107733	12.3*
Hexachlorobutadiene	AVRG	0.13338840	11.4*
2-Methylnaphthalene	AVRG	0.71231560	15.8*
Hexachlorocyclopentadiene	AVRG	0.21767202	6.6**
2-Chloronaphthalene	AVRG	1.15388292	13.5*
2-Nitroaniline	AVRG	0.37697358	12.1*
Dimethylphthalate	AVRG	1.47907124	11.1*
Acenaphthylene	AVRG	1.90955908	13.7*
2,6-Dinitrotoluene	AVRG	0.37575972	4.8*
3-Nitroaniline	AVRG	0.31611585	23.1*
Acenaphthene	AVRG	1.12244161	15.7*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

303983

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 09/28/98 09/28/98

Calibration Time(s): 1257 1653

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Dibenzofuran	AVRG	1.63514657	16.9*
2,4-Dinitrotoluene	AVRG	0.53727782	9.1*
Diethylphthalate	AVRG	1.51794059	19.6*
4-Chlorophenyl-phenylether	AVRG	0.47523038	21.5*
Fluorene	AVRG	1.22763286	22.1*
4-Nitroaniline	AVRG	0.42831474	6.0*
N-Nitrosodiphenylamine	AVRG	0.59905034	16.3*
4-Bromophenyl-phenylether	AVRG	0.18940758	15.9*
Hexachlorobenzene	AVRG	0.23301942	14.9*
Phenanthrene	AVRG	1.09843572	18.3*
Anthracene	AVRG	1.11884462	17.7*
Carbazole	AVRG	1.16300177	16.9*
Di-n-butylphthalate	AVRG	1.53040018	21.4*
Fluoranthene	AVRG	0.97558329	20.0*
Pyrene	AVRG	1.58804533	11.2*
Benzidine	AVRG	0.64686913	26.8*
Butylbenzylphthalate	AVRG	1.16385265	12.9*
3,3'-Dichlorobenzidine	AVRG	0.56193938	13.0*
Benzo(a)anthracene	AVRG	1.30562658	14.5*
Chrysene	AVRG	1.20159449	8.2*
bis(2-Ethylhexyl)phthalate	AVRG	1.34803820	19.4*
Di-n-octylphthalate	AVRG	2.43397578	7.8*
Benzo(b)fluoranthene	AVRG	1.38620910	7.1*
Benzo(k)fluoranthene	AVRG	1.33063440	13.7*
Benzo(a)pyrene	AVRG	1.29374387	3.8*
Indeno(1,2,3-cd)pyrene	AVRG	1.28590827	3.8*
Dibenz(a,h)anthracene	AVRG	1.22697829	2.4*
Benzo(g,h,i)perylene	AVRG	1.30429028	4.3*
Pyridine	AVRG	1.53611463	5.8*
Aniline	AVRG	2.17591174	20.2*
Benzyl Alcohol	AVRG	1.04586995	6.9*
1,2-Diphenylhydrazine	AVRG	0.90061739	18.9*
Diphenyl	AVRG	1.47150847	17.3*
Diphenyl Ether	AVRG	0.80921778	15.4*
Acetophenone	AVRG	1.73611853	17.8**
1,4-Dioxane	AVRG	0.58278575	6.4**
N,N-Dimethylaniline	AVRG	1.84026505	16.8**
2-Fluorophenol (SUR)	AVRG	1.42966178	3.9*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

303984

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2

Calibration Date(s): 09/28/98 09/28/98

Calibration Time(s): 1257 1653

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol-d5 (SUR)	AVRG	1.93856950	6.3*
2,4,6-Tribromophenol (SUR)	AVRG	0.24879583	7.6*
Nitrobenzene-d5 (SUR)	AVRG	0.41025215	4.4*
2-Fluorobiphenyl (SUR)	AVRG	1.31209515	15.0*
Terphenyl-d14 (SUR)	AVRG	1.04095605	14.4*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

303985

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7728.d
Report Date: 09-Nov-1998 10:34

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7728.d
Lab Smp Id: SSTD120
Inj Date : 28-SEP-1998 13:56
Operator : BNAMS3 Inst ID: BNAMS2.i
Smp Info : SSTD120
Misc Info : 120 PPM BNA STD
Comment :
Method : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/8270C-REV..m
Meth Date : 28-Sep-98 17:27:38 lisa Quant Type: ISTD
Cal Date : 28-SEP-1998 13:56 Cal File: s7728.d
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.784	4.712	(0.369)	944791	120.000	120
19 N-Nitrosodimethylamine	74	6.011	5.892	(0.464)	1734592	120.000	120
71 Pyridine	79	5.992	5.990	(0.463)	2761077	120.000	120(AM)
$ 16 2-Fluorophenol (SUR)	112	10.505	10.480	(0.811)	2345528	120.000	110
$ 17 Phenol-d5 (SUR)	99	12.354	12.301	(0.954)	3018148	120.000	110
1 Phenol	94	12.387	12.327	(0.956)	2844598	120.000	110
73 Aniline	93	12.519	12.347	(0.966)	2565139	120.000	96(H)
20 bis(2-Chloroethyl)ether	93	12.519	12.478	(0.966)	2565139	120.000	110
2 2-Chlorophenol	128	12.592	12.563	(0.972)	2103648	120.000	110
21 1,3-Dichlorobenzene	146	12.855	12.832	(0.992)	2301983	120.000	110
* 79 1,4-Dichlorobenzene-d4	152	12.954	12.937	(1.000)	572837	40.0000	
22 1,4-Dichlorobenzene	146	12.987	12.970	(1.003)	2187835	120.000	110
74 Benzyl Alcohol	108	13.231	13.180	(1.021)	1635126	120.000	110
23 1,2-Dichlorobenzene	146	13.250	13.233	(1.023)	2052149	120.000	110

303986

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7728.d
Report Date: 09-Nov-1998 10:34

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
3 2-Methylphenol	108	13.428	13.377	(1.037)	2106400	120.000	110
24 bis(2-chloroisopropyl)ether	45	13.442	13.410	(1.038)	2792366	120.000	110(M)
4 4-Methylphenol	108	13.692	13.633	(1.057)	1601987	120.000	100(H)
25 N-Nitroso-di-n-propylamine	70	13.712	13.633	(1.059)	1290213	120.000	110
104 Acetophenone	105	13.672	13.633	(1.055)	2494077	120.000	110
26 Hexachloroethane	117	13.831	13.816	(1.068)	894824	120.000	110
$ 76 Nitrobenzene-d5 (SUR)	82	13.937	13.889	(0.921)	2181895	120.000	110
27 Nitrobenzene	77	13.990	13.928	(0.924)	2498329	120.000	110
107 N,N-Dimethylaniline	120	13.976	13.928	(1.079)	2604219	120.000	110
28 Isophorone	82	14.398	14.328	(0.951)	4729059	120.000	120
5 2-Nitrophenol	139	14.497	14.465	(0.958)	1313774	120.000	110
6 2,4-Dimethylphenol	122	14.583	14.531	(0.963)	1858805	120.000	110
15 Benzoic Acid	122	14.893	14.636	(0.984)	1479333	120.000	120(AMH)
29 bis(2-Chloroethoxy)methane	93	14.728	14.695	(0.973)	2377945	120.000	110
7 2,4-Dichlorophenol	162	14.920	14.879	(0.986)	1715956	120.000	110
30 1,2,4-Trichlorobenzene	180	15.039	15.017	(0.993)	1677412	120.000	110
* 80 Naphthalene-d8	136	15.139	15.122	(1.000)	1911808	40.0000	
31 Naphthalene	128	15.185	15.155	(1.003)	4689205	120.000	110
32 4-Chloroaniline	127	15.265	15.234	(1.008)	2388182	120.000	110
33 Hexachlorobutadiene	225	15.371	15.352	(1.015)	637263	120.000	110
8 4-Chloro-3-methylphenol	107	16.049	16.027	(1.060)	1715493	120.000	110
34 2-Methylnaphthalene	142	16.333	16.308	(1.079)	3334855	120.000	110
35 Hexachlorocyclopentadiene	237	16.577	16.564	(0.918)	688565	120.000	120
9 2,4,6-Trichlorophenol	196	16.788	16.768	(0.930)	1083835	120.000	110
10 2,4,5-Trichlorophenol	196	16.855	16.827	(0.933)	1069954	120.000	110
$ 77 2-Fluorobiphenyl (SUR)	172	16.935	16.906	(0.938)	3556308	120.000	110
102 Diphenyl	154	17.114	17.076	(0.948)	3814383	120.000	110
36 2-Chloronaphthalene	162	17.147	17.116	(0.949)	3220792	120.000	110
103 Diphenyl Ether	170	17.273	17.247	(0.956)	2237989	120.000	110
37 2-Nitroaniline	65	17.319	17.274	(0.959)	1080499	120.000	110(H)
38 Dimethylphthalate	163	17.597	17.562	(0.974)	4255865	120.000	110
40 2,6-Dinitrotoluene	165	17.723	17.667	(0.981)	1183945	120.000	120
39 Acenaphthylene	152	17.842	17.805	(0.988)	5255031	120.000	110
41 3-Nitroaniline	138	17.994	17.949	(0.996)	883938	120.000	110
* 82 Acenaphthene-d10	164	18.061	18.041	(1.000)	1109927	40.0000	
42 Acenaphthene	153	18.127	18.094	(1.004)	3010106	120.000	110
11 2,4-Dinitrophenol	184	18.167	18.120	(1.006)	953765	120.000	120
12 4-Nitrophenol	65	18.266	18.213	(1.011)	829791	120.000	120
44 2,4-Dinitrotoluene	165	18.386	18.331	(1.018)	1567029	120.000	110
43 Dibenzofuran	168	18.412	18.377	(1.019)	4322723	120.000	110
45 Diethylphthalate	149	18.770	18.724	(1.039)	4018048	120.000	110
46 4-Chlorophenyl-phenylether	204	18.956	18.934	(1.050)	1122823	120.000	99
47 Fluorene	166	18.983	18.941	(1.051)	3034482	120.000	100
48 4-Nitroaniline	138	19.062	18.954	(1.055)	1298923	120.000	110
13 4,6-Dinitro-2-methylphenol	198	19.082	19.007	(0.930)	879309	120.000	120(H)
49 N-Nitrosodiphenylamine	169	19.169	19.119	(0.934)	2623661	120.000	110
75 1,2-Diphenylhydrazine	77	19.229	19.191	(0.937)	3774489	120.000	110

303987

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7728.d
Report Date: 09-Nov-1998 10:34

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 18 2,4,6-Tribromophenol (SUR)	330	19.374	19.342	(1.073)	739347	120.000	110
50 4-Bromophenyl-phenylether	248	19.772	19.742	(0.964)	819770	120.000	110
51 Hexachlorobenzene	284	19.885	19.853	(0.969)	1027542	120.000	110
14 Pentachlorophenol	266	20.196	20.175	(0.984)	799242	120.000	120
* 83 Phenanthrene-d10	188	20.520	20.503	(1.000)	1738119	40.0000	
52 Phenanthrene	178	20.573	20.543	(1.003)	4579079	120.000	110
53 Anthracene	178	20.660	20.621	(1.007)	4595926	120.000	110
54 Carbazole	167	20.911	20.871	(1.019)	4957806	120.000	110
55 Di-n-butylphthalate	149	21.445	21.421	(1.045)	6145475	120.000	110
56 Fluoranthene	202	22.538	22.502	(1.098)	3999145	120.000	110
58 Benzidine	184	22.736	22.706	(1.108)	2743256	120.000	130(A)
57 Pyrene	202	22.922	22.877	(0.919)	4099573	120.000	110
$ 78 Terphenyl-d14 (SUR)	244	23.140	23.106	(0.928)	2524428	120.000	110
59 Butylbenzylphthalate	149	23.924	23.893	(0.959)	3003579	120.000	110
60 3,3'-Dichlorobenzidine	252	24.847	24.791	(0.996)	1328035	120.000	100
61 Benzo(a)anthracene	228	24.907	24.864	(0.999)	3261137	120.000	110
63 bis(2-Ethylhexyl)phthalate	149	24.874	24.837	(0.998)	2951628	120.000	100
* 81 Chrysene-d12	240	24.934	24.897	(1.000)	993917	40.0000	
62 Chrysene	228	24.995	24.931	(1.002)	3184022	120.000	110
64 Di-n-octylphthalate	149	26.201	26.150	(0.924)	7392060	120.000	120
65 Benzo(b)fluoranthene	252	27.289	27.179	(0.962)	4784383	120.000	130(A)
66 Benzo(k)fluoranthene	252	27.382	27.252	(0.966)	3536719	120.000	110(H)
67 Benzo(a)pyrene	252	28.232	28.104	(0.996)	4172983	120.000	120
* 84 Perylene-d12	264	28.358	28.308	(1.000)	1114896	40.0000	
68 Indeno(1,2,3-cd)pyrene	276	32.527	32.235	(1.147)	4447923	120.000	120(AM)
69 Dibenz(a,h)anthracene	278	32.627	32.334	(1.151)	4073264	120.000	120(A)
70 Benzo(g,h,i)perylene	276	33.785	33.481	(1.191)	4065898	120.000	120(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

303988

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7728.d
Date : 28-SEP-1998 13:56
Client ID:
Sample Info: SSTD120

Instrument: BNAMS2.i

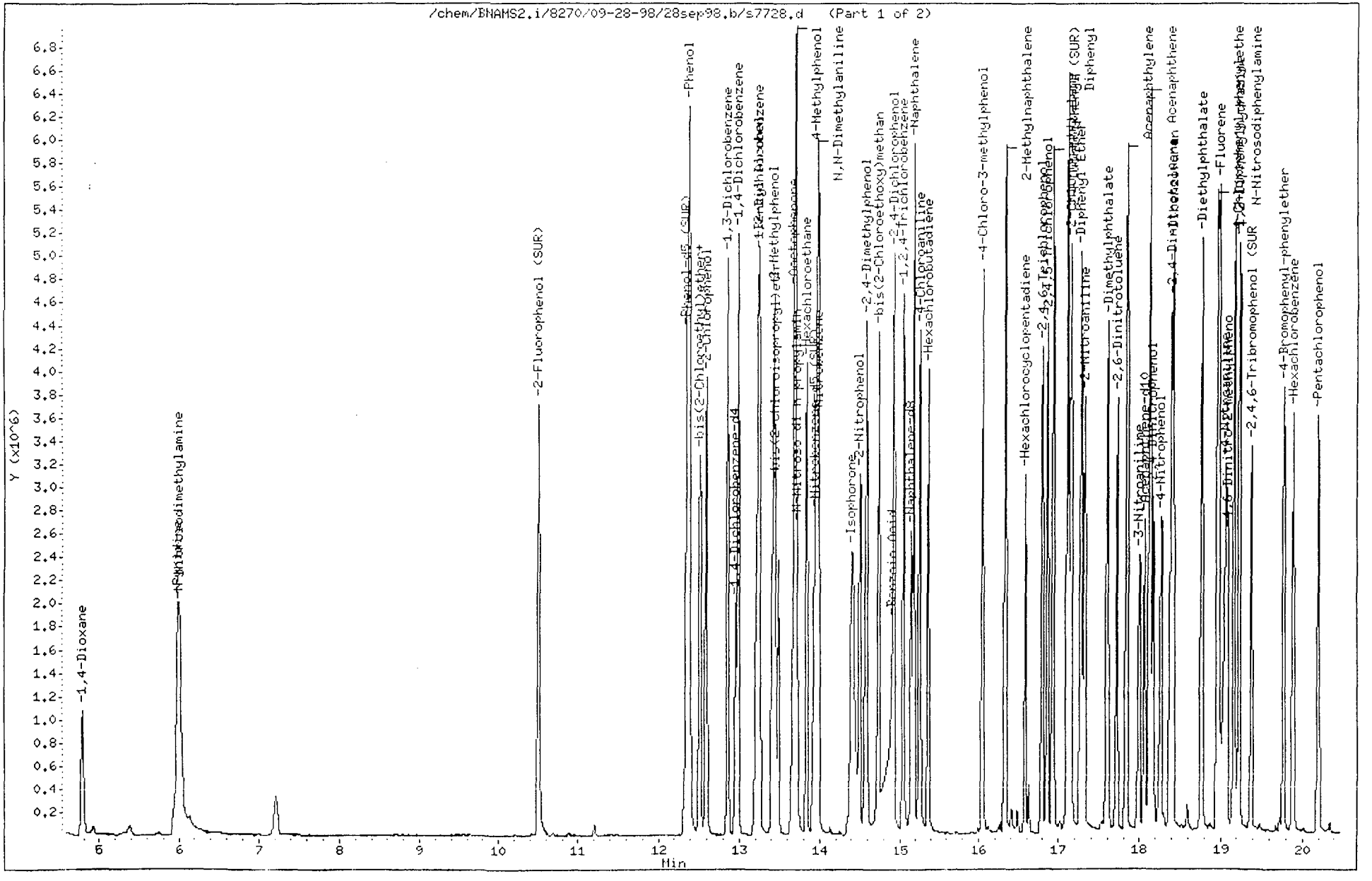
Operator: BNAMS3

303989

452

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7728.d
Date : 28-SEP-1998 13:56
Client ID:
Sample Info: SSTD120

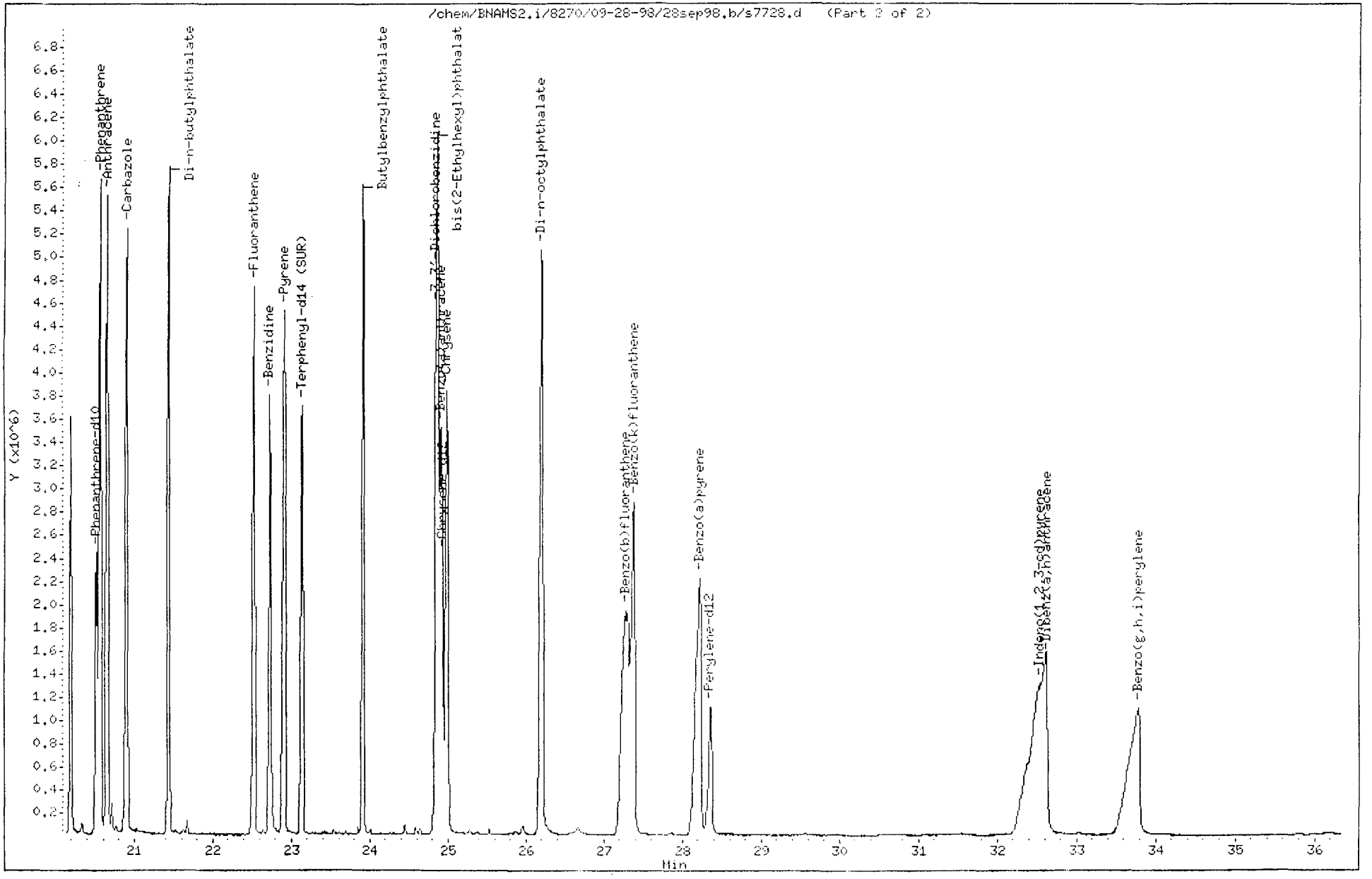
Instrument: BNAMS2.i

Operator: BNAMS3

303990

Column phase: DB-5

Column diameter: 0.25



453

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7729.d
Report Date: 09-Nov-1998 10:34

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7729.d
Lab Smp Id: SSTD080
Inj Date : 28-SEP-1998 14:40
Operator : BNAMS3 Inst ID: BNAMS2.i
Smp Info : SSTD080
Misc Info : 80 PPM BNA STD
Comment :
Method : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/8270C-REV..m
Meth Date : 28-Sep-98 17:27:38 lisa Quant Type: ISTD
Cal Date : 28-SEP-1998 14:40 Cal File: s7729.d
Als bottle: 3 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)
106 1,4-Dioxane	88	4.758	4.712	(0.367)	601923	80.0000	80(M)
19 N-Nitrosodimethylamine	74	5.965	5.892	(0.461)	1125166	80.0000	80(M)
71 Pyridine	79	5.985	5.990	(0.462)	1686656	80.0000	79(M)
$ 16 2-Fluorophenol (SUR)	112	10.494	10.480	(0.810)	1494468	80.0000	78
$ 17 Phenol-d5 (SUR)	99	12.336	12.301	(0.953)	2014936	80.0000	80
1 Phenol	94	12.369	12.327	(0.955)	1966160	80.0000	80
73 Aniline	93	12.376	12.347	(0.956)	2202812	80.0000	85
20 bis(2-Chloroethyl)ether	93	12.508	12.478	(0.966)	1659951	80.0000	79
2 2-Chlorophenol	128	12.580	12.563	(0.972)	1369074	80.0000	79
21 1,3-Dichlorobenzene	146	12.850	12.832	(0.992)	1541471	80.0000	81
* 79 1,4-Dichlorobenzene-d4	152	12.948	12.937	(1.000)	538539	40.0000	
22 1,4-Dichlorobenzene	146	12.981	12.970	(1.003)	1474864	80.0000	80
74 Benzyl Alcohol	108	13.211	13.180	(1.020)	1063453	80.0000	79
23 1,2-Dichlorobenzene	146	13.244	13.233	(1.023)	1459214	80.0000	82

303991

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7729.d
Report Date: 09-Nov-1998 10:34

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
3 2-Methylphenol	108	13.409	13.377	(1.036)	1370326	80.0000	79
24 bis(2-chloroisopropyl)ether	45	13.435	13.410	(1.038)	1809777	80.0000	78(M)
4 4-Methylphenol	108	13.672	13.633	(1.056)	1121568	80.0000	79
25 N-Nitroso-di-n-propylamine	70	13.686	13.633	(1.057)	838546	80.0000	79
104 Acetophenone	105	13.666	13.633	(1.055)	1625515	80.0000	79
26 Hexachloroethane	117	13.824	13.816	(1.068)	603028	80.0000	80
$ 76 Nitrobenzene-d5 (SUR)	82	13.923	13.889	(0.920)	1458637	80.0000	81
27 Nitrobenzene	77	13.963	13.928	(0.923)	1669843	80.0000	80
107 N,N-Dimethylaniline	120	13.963	13.928	(1.078)	1722482	80.0000	78
28 Isophorone	82	14.370	14.328	(0.950)	3046446	80.0000	81
5 2-Nitrophenol	139	14.489	14.465	(0.958)	883261	80.0000	81
6 2,4-Dimethylphenol	122	14.561	14.531	(0.962)	1247307	80.0000	81
15 Benzoic Acid	122	14.845	14.636	(0.981)	1032700	80.0000	87
29 bis(2-Chloroethoxy)methane	93	14.720	14.695	(0.973)	1610430	80.0000	82
7 2,4-Dichlorophenol	162	14.905	14.879	(0.985)	1209350	80.0000	83
30 1,2,4-Trichlorobenzene	180	15.030	15.017	(0.993)	1138529	80.0000	82
* 80 Naphthalene-d8	136	15.129	15.122	(1.000)	1785038	40.0000	
31 Naphthalene	128	15.176	15.155	(1.003)	3249968	80.0000	80
32 4-Chloroaniline	127	15.255	15.234	(1.008)	1619091	80.0000	80
33 Hexachlorobutadiene	225	15.361	15.352	(1.015)	450220	80.0000	81
8 4-Chloro-3-methylphenol	107	16.038	16.027	(1.060)	1204747	80.0000	82
34 2-Methylnaphthalene	142	16.321	16.308	(1.079)	2302408	80.0000	81
35 Hexachlorocyclopentadiene	237	16.571	16.564	(0.918)	453031	80.0000	81
9 2,4,6-Trichlorophenol	196	16.782	16.768	(0.930)	738169	80.0000	81
10 2,4,5-Trichlorophenol	196	16.848	16.827	(0.933)	783948	80.0000	83
$ 77 2-Fluorobiphenyl (SUR)	172	16.921	16.906	(0.937)	2531594	80.0000	81
102 Diphenyl	154	17.100	17.076	(0.947)	2802935	80.0000	81
36 2-Chloronaphthalene	162	17.140	17.116	(0.949)	2225716	80.0000	80
103 Diphenyl Ether	170	17.266	17.247	(0.956)	1549288	80.0000	80
37 2-Nitroaniline	65	17.305	17.274	(0.959)	725471	80.0000	79
38 Dimethylphthalate	163	17.589	17.562	(0.974)	2897519	80.0000	80
40 2,6-Dinitrotoluene	165	17.702	17.667	(0.981)	781999	80.0000	80
39 Acenaphthylene	152	17.827	17.805	(0.988)	3676831	80.0000	80
41 3-Nitroaniline	138	17.979	17.949	(0.996)	602117	80.0000	81
* 82 Acenaphthene-d10	164	18.052	18.041	(1.000)	1058393	40.0000	
42 Acenaphthene	153	18.118	18.094	(1.004)	2148495	80.0000	81
11 2,4-Dinitrophenol	184	18.158	18.120	(1.006)	781117	100.000	100
12 4-Nitrophenol	65	18.251	18.213	(1.011)	666915	100.000	100
44 2,4-Dinitrotoluene	165	18.370	18.331	(1.018)	1096556	80.0000	82
43 Dibenzofuran	168	18.403	18.377	(1.019)	3143517	80.0000	82
45 Diethylphthalate	149	18.753	18.724	(1.039)	2895775	80.0000	82
46 4-Chlorophenyl-phenylether	204	18.951	18.934	(1.050)	885118	80.0000	81
47 Fluorene	166	18.971	18.941	(1.051)	2269993	80.0000	82
48 4-Nitroaniline	138	19.031	18.954	(1.054)	890241	80.0000	81
13 4,6-Dinitro-2-methylphenol	198	19.058	19.007	(0.929)	746412	100.000	100
49 N-Nitrosodiphenylamine	169	19.150	19.119	(0.933)	1845293	80.0000	80
75 1,2-Diphenylhydrazine	77	19.217	19.191	(0.937)	2689759	80.0000	80

303992

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7729.d
Report Date: 09-Nov-1998 10:34

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 18 2,4,6-Tribromophenol (SUR)	330	19.362	19.342	(1.073)	513810	80.0000	82
50 4-Bromophenyl-phenylether	248	19.764	19.742	(0.963)	581686	80.0000	80
51 Hexachlorobenzene	284	19.877	19.853	(0.969)	729612	80.0000	81
14 Pentachlorophenol	266	20.194	20.175	(0.984)	657985	100.000	99
* 83 Phenanthrene-d10	188	20.517	20.503	(1.000)	1705233	40.0000	
52 Phenanthrene	178	20.563	20.543	(1.002)	3309624	80.0000	80
53 Anthracene	178	20.649	20.621	(1.006)	3384400	80.0000	81
54 Carbazole	167	20.900	20.871	(1.019)	3540357	80.0000	80
55 Di-n-butylphthalate	149	21.433	21.421	(1.045)	4506293	80.0000	80
56 Fluoranthene	202	22.524	22.502	(1.098)	2948844	80.0000	82
58 Benzidine	184	22.728	22.706	(1.108)	2543186	100.000	110
57 Pyrene	202	22.907	22.877	(0.919)	2976272	80.0000	81
$ 78 Terphenyl-d14 (SUR)	244	23.131	23.106	(0.928)	1887335	80.0000	80
59 Butylbenzylphthalate	149	23.913	23.893	(0.960)	2165432	80.0000	82
60 3,3'-Dichlorobenzidine	252	24.834	24.791	(0.996)	1371518	100.000	100
61 Benzo(a)anthracene	228	24.888	24.864	(0.999)	2428812	80.0000	82
63 bis(2-Ethylhexyl)phthalate	149	24.861	24.837	(0.998)	2416449	80.0000	82
* 81 Chrysene-d12	240	24.922	24.897	(1.000)	996450	40.0000	
62 Chrysene	228	24.976	24.931	(1.002)	2311718	80.0000	82
64 Di-n-octylphthalate	149	26.187	26.150	(0.924)	5184491	80.0000	80
65 Benzo(b)fluoranthene	252	27.253	27.179	(0.962)	3019016	80.0000	80
66 Benzo(k)fluoranthene	252	27.339	27.252	(0.965)	2961193	80.0000	86
67 Benzo(a)pyrene	252	28.195	28.104	(0.995)	2875557	80.0000	81
* 84 Perylene-d12	264	28.335	28.308	(1.000)	1121964	40.0000	
68 Indeno(1,2,3-cd)pyrene	276	32.392	32.235	(1.143)	3001202	80.0000	82
69 Dibenz(a,h)anthracene	278	32.545	32.334	(1.149)	2810720	80.0000	82
70 Benzo(g,h,i)perylene	276	33.703	33.481	(1.189)	2975289	80.0000	83

QC Flag Legend

M - Compound response manually integrated.

303993

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7729.d
Date : 28-SEP-1998 14:40
Client ID:
Sample Info: SSTD080

Instrument: BNAMS2.i

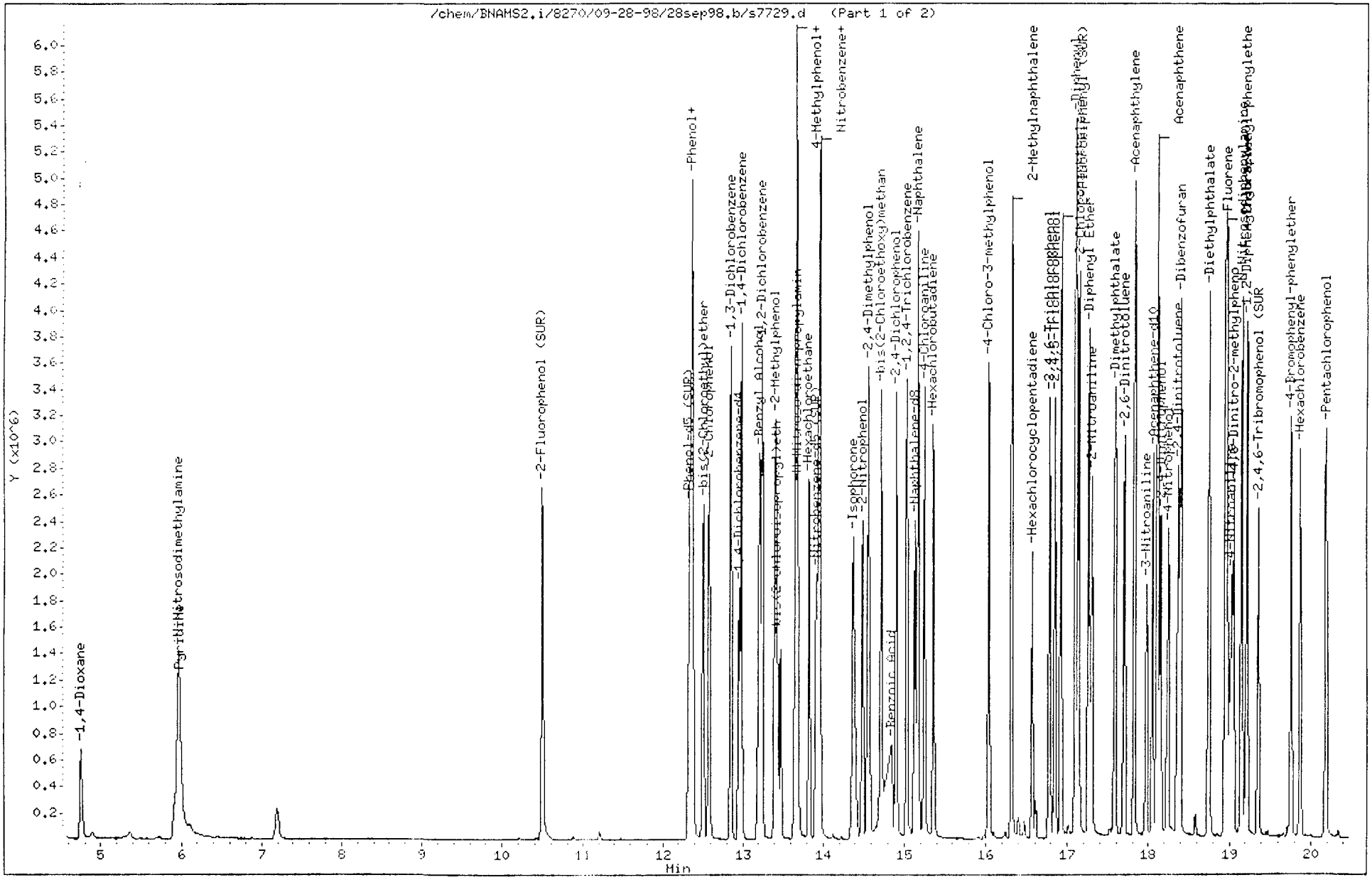
Operator: BNAMS3

Column phase: DB-5

Column diameter: 0.25

303994

457



Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7729.d
Date : 28-SEP-1998 14:40
Client ID:
Sample Info: SSTD080

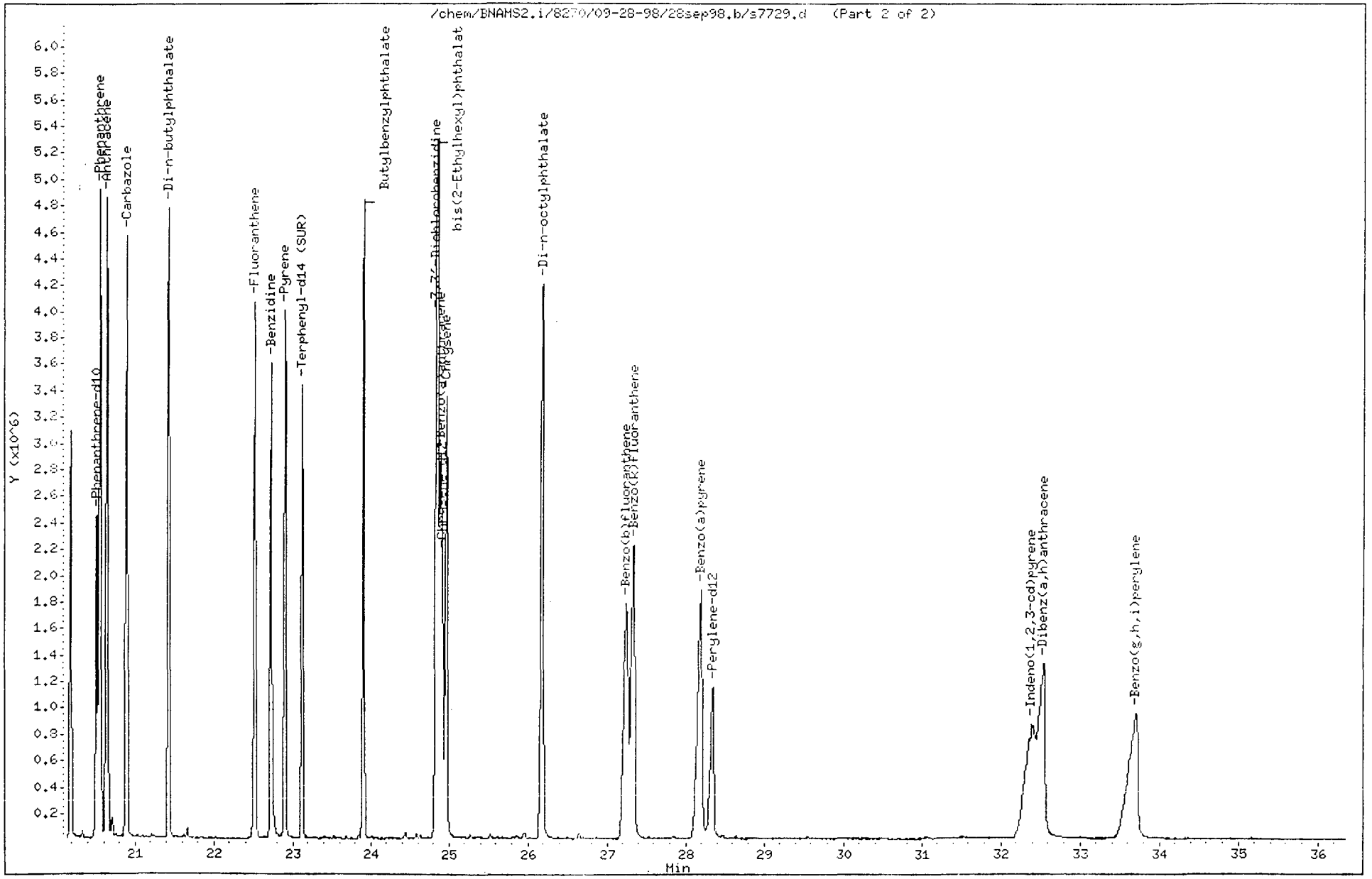
Instrument: BNAMS2.i

Operator: BNAMS3

303995

Column phase: DB-5

Column diameter: 0.25



458

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7727.d
Report Date: 09-Nov-1998 10:33

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7727.d
Lab Smp Id: SSTD050
Inj Date : 28-SEP-1998 12:57
Operator : BNAMS3 Inst ID: BNAMS2.i
Smp Info : SSTD050
Misc Info : 50 PPM BNA STD
Comment :
Method : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/8270C-REV..m
Meth Date : 28-Sep-98 17:27:38 lisa Quant Type: ISTD
Cal Date : 28-SEP-1998 12:57 Cal File: s7727.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.738	4.712	(0.366)	395117	50.0000	50(M)
19 N-Nitrosodimethylamine	74	5.932	5.892	(0.458)	754176	50.0000	50(M)
71 Pyridine	79	5.965	5.990	(0.461)	1111820	50.0000	50(M)
$ 16 2-Fluorophenol (SUR)	112	10.487	10.480	(0.810)	1046836	50.0000	50
$ 17 Phenol-d5 (SUR)	99	12.328	12.301	(0.952)	1399186	50.0000	50
1 Phenol	94	12.355	12.327	(0.954)	1423544	50.0000	50
73 Aniline	93	12.368	12.347	(0.955)	1576563	50.0000	50
20 bis(2-Chloroethyl)ether	93	12.499	12.478	(0.965)	1147845	50.0000	50
2 2-Chlorophenol	128	12.578	12.563	(0.972)	944266	50.0000	50
21 1,3-Dichlorobenzene	146	12.848	12.832	(0.992)	1046441	50.0000	50
* 79 1,4-Dichlorobenzene-d4	152	12.946	12.937	(1.000)	562142	40.0000	
22 1,4-Dichlorobenzene	146	12.979	12.970	(1.003)	1018376	50.0000	50
74 Benzyl Alcohol	108	13.203	13.180	(1.020)	755279	50.0000	50
23 1,2-Dichlorobenzene	146	13.236	13.233	(1.022)	1010498	50.0000	50

303996

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7727.d
Report Date: 09-Nov-1998 10:33

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
3 2-Methylphenol	108	13.400	13.377	(1.035)	949849	50.0000	50
24 bis(2-chloroisopropyl)ether	45	13.433	13.410	(1.038)	1300627	50.0000	50(M)
4 4-Methylphenol	108	13.657	13.633	(1.055)	838219	50.0000	50
25 N-Nitroso-di-n-propylamine	70	13.670	13.633	(1.056)	583524	50.0000	50
104 Acetophenone	105	13.657	13.633	(1.055)	1142263	50.0000	50
26 Hexachloroethane	117	13.822	13.816	(1.068)	413068	50.0000	50
$ 76 Nitrobenzene-d5 (SUR)	82	13.914	13.889	(0.919)	990883	50.0000	50
27 Nitrobenzene	77	13.953	13.928	(0.922)	1189866	50.0000	50
107 N,N-Dimethylaniline	120	13.947	13.928	(1.077)	1253218	50.0000	50
28 Isophorone	82	14.354	14.328	(0.949)	2039697	50.0000	50
5 2-Nitrophenol	139	14.486	14.465	(0.957)	603981	50.0000	50
6 2,4-Dimethylphenol	122	14.552	14.531	(0.962)	867274	50.0000	50
15 Benzoic Acid	122	14.795	14.636	(0.978)	586687	50.0000	50
29 bis(2-Chloroethoxy)methane	93	14.710	14.695	(0.972)	1085461	50.0000	50
7 2,4-Dichlorophenol	162	14.894	14.879	(0.984)	818686	50.0000	50
30 1,2,4-Trichlorobenzene	180	15.026	15.017	(0.993)	774137	50.0000	50
* 80 Naphthalene-d8	136	15.132	15.122	(1.000)	1894724	40.0000	
31 Naphthalene	128	15.165	15.155	(1.002)	2332460	50.0000	50
32 4-Chloroaniline	127	15.244	15.234	(1.007)	1151278	50.0000	50
33 Hexachlorobutadiene	225	15.363	15.352	(1.015)	322039	50.0000	50
8 4-Chloro-3-methylphenol	107	16.033	16.027	(1.060)	825255	50.0000	50
34 2-Methylnaphthalene	142	16.315	16.308	(1.078)	1621074	50.0000	50
35 Hexachlorocyclopentadiene	237	16.565	16.564	(0.918)	299927	50.0000	50
9 2,4,6-Trichlorophenol	196	16.776	16.768	(0.929)	505192	50.0000	50
10 2,4,5-Trichlorophenol	196	16.842	16.827	(0.933)	533292	50.0000	50
$ 77 2-Fluorobiphenyl (SUR)	172	16.922	16.906	(0.937)	1775666	50.0000	50
102 Diphenyl	154	17.093	17.076	(0.947)	2004956	50.0000	50
36 2-Chloronaphthalene	162	17.133	17.116	(0.949)	1585738	50.0000	50
103 Diphenyl Ether	170	17.258	17.247	(0.956)	1087197	50.0000	50
37 2-Nitroaniline	65	17.292	17.274	(0.958)	516755	50.0000	50
38 Dimethylphthalate	163	17.582	17.562	(0.974)	2037459	50.0000	50
40 2,6-Dinitrotoluene	165	17.694	17.667	(0.980)	531205	50.0000	50
39 Acenaphthylene	152	17.826	17.805	(0.988)	2637184	50.0000	50
41 3-Nitroaniline	138	17.971	17.949	(0.996)	406430	50.0000	50
* 82 Acenaphthene-d10	164	18.050	18.041	(1.000)	1111344	40.0000	
42 Acenaphthene	153	18.109	18.094	(1.003)	1526223	50.0000	50
11 2,4-Dinitrophenol	184	18.149	18.120	(1.006)	660199	80.0000	80
12 4-Nitrophenol	65	18.242	18.213	(1.011)	566689	80.0000	80
44 2,4-Dinitrotoluene	165	18.361	18.331	(1.017)	740576	50.0000	50
43 Dibenzofuran	168	18.394	18.377	(1.019)	2202276	50.0000	50
45 Diethylphthalate	149	18.750	18.724	(1.039)	2004167	50.0000	50
46 4-Chlorophenyl-phenylether	204	18.947	18.934	(1.050)	666615	50.0000	50
47 Fluorene	166	18.961	18.941	(1.050)	1618940	50.0000	50
48 4-Nitroaniline	138	19.007	18.954	(1.053)	597559	50.0000	50
13 4,6-Dinitro-2-methylphenol	198	19.047	19.007	(0.929)	625106	80.0000	80
49 N-Nitrosodiphenylamine	169	19.146	19.119	(0.933)	1257703	50.0000	50
75 1,2-Diphenylhydrazine	77	19.213	19.191	(0.937)	1899238	50.0000	50

303997

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7727.d
Report Date: 09-Nov-1998 10:34

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 18 2,4,6-Tribromophenol (SUR)	330	19.358	19.342	(1.072)	341012	50.0000	50
50 4-Bromophenyl-phenylether	248	19.754	19.742	(0.963)	399279	50.0000	50
51 Hexachlorobenzene	284	19.866	19.853	(0.969)	482729	50.0000	50
14 Pentachlorophenol	266	20.188	20.175	(0.984)	563520	80.0000	80
* 83 Phenanthrene-d10	188	20.511	20.503	(1.000)	1753290	40.0000	
52 Phenanthrene	178	20.558	20.543	(1.002)	2306574	50.0000	50
53 Anthracene	178	20.644	20.621	(1.006)	2365270	50.0000	50
54 Carbazole	167	20.894	20.871	(1.019)	2422869	50.0000	50
55 Di-n-butylphthalate	149	21.434	21.421	(1.045)	3158259	50.0000	50
56 Fluoranthene	202	22.519	22.502	(1.098)	1978565	50.0000	50
58 Benzidine	184	22.717	22.706	(1.108)	1614641	80.0000	80
57 Pyrene	202	22.903	22.877	(0.919)	2013033	50.0000	50
$ 78 Terphenyl-d14 (SUR)	244	23.127	23.106	(0.928)	1362800	50.0000	50
59 Butylbenzylphthalate	149	23.910	23.893	(0.960)	1440218	50.0000	50
60 3,3'-Dichlorobenzidine	252	24.833	24.791	(0.997)	1189034	80.0000	80
61 Benzo(a)anthracene	228	24.887	24.864	(0.999)	1656143	50.0000	50
63 bis(2-Ethylhexyl)phthalate	149	24.854	24.837	(0.998)	1762666	50.0000	50
* 81 Chrysene-d12	240	24.914	24.897	(1.000)	1052017	40.0000	
62 Chrysene	228	24.968	24.931	(1.002)	1560713	50.0000	50
64 Di-n-octylphthalate	149	26.173	26.150	(0.924)	3493704	50.0000	50
65 Benzo(b)fluoranthene	252	27.239	27.179	(0.961)	1834072	50.0000	50
66 Benzo(k)fluoranthene	252	27.326	27.252	(0.964)	1907281	50.0000	50
67 Benzo(a)pyrene	252	28.169	28.104	(0.994)	1825600	50.0000	50
* 84 Perylene-d12	264	28.335	28.308	(1.000)	1167998	40.0000	
68 Indeno(1,2,3-cd)pyrene	276	32.365	32.235	(1.142)	1795085	50.0000	50
69 Dibenz(a,h)anthracene	278	32.498	32.334	(1.147)	1723303	50.0000	50
70 Benzo(g,h,i)perylene	276	33.657	33.481	(1.188)	1886367	50.0000	50

QC Flag Legend

M - Compound response manually integrated.

303998

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7727.d
Date : 28-SEP-1998 12:57
Client ID:
Sample Info: SSTD050

Instrument: BNAMS2.i

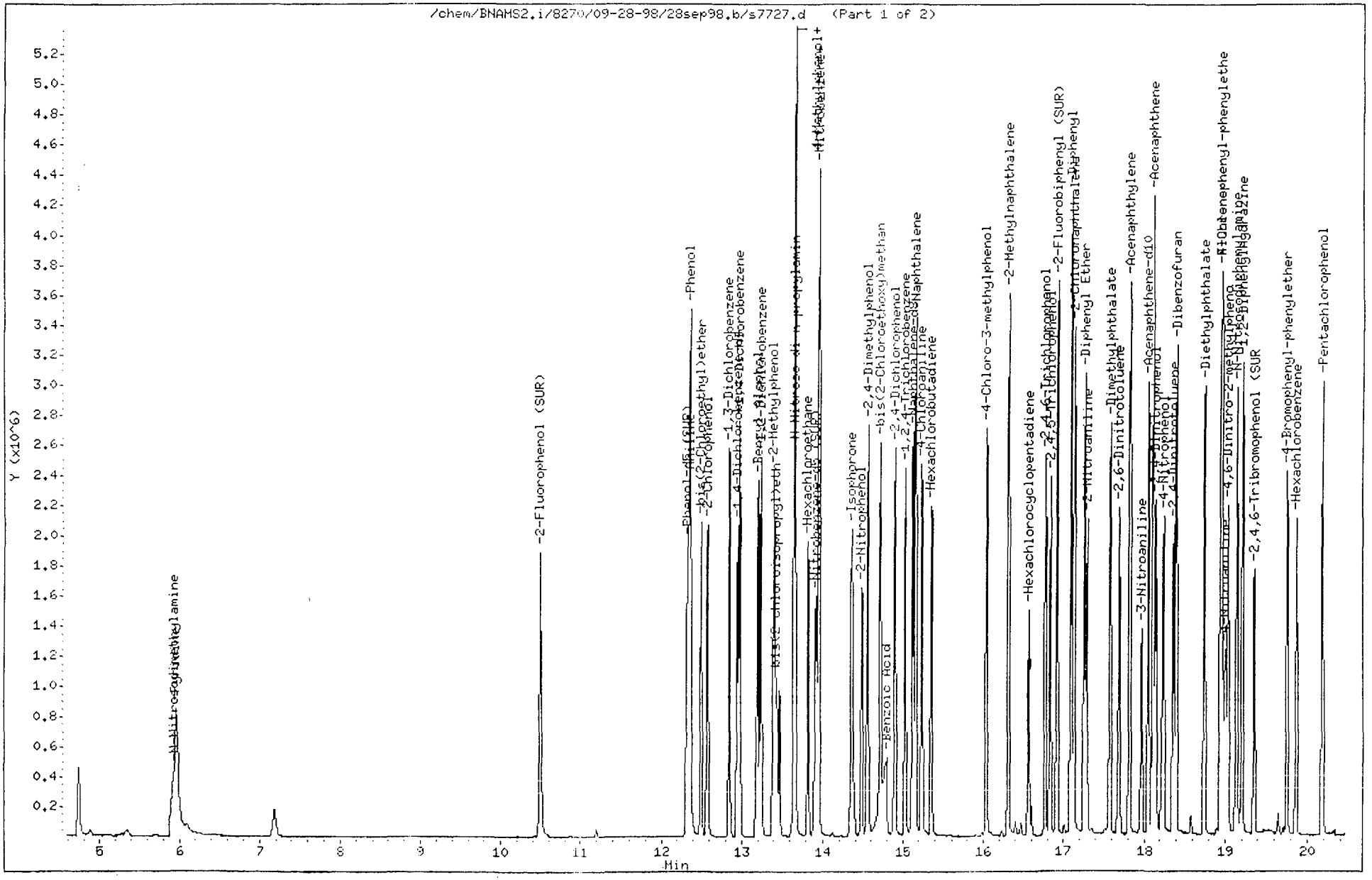
Operator: BNAMS3

Column phase: DB-5

Column diameter: 0.25

303999

462



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Date : 28-SEP-1998 12:57
Client ID:
Sample Info: SSTD050

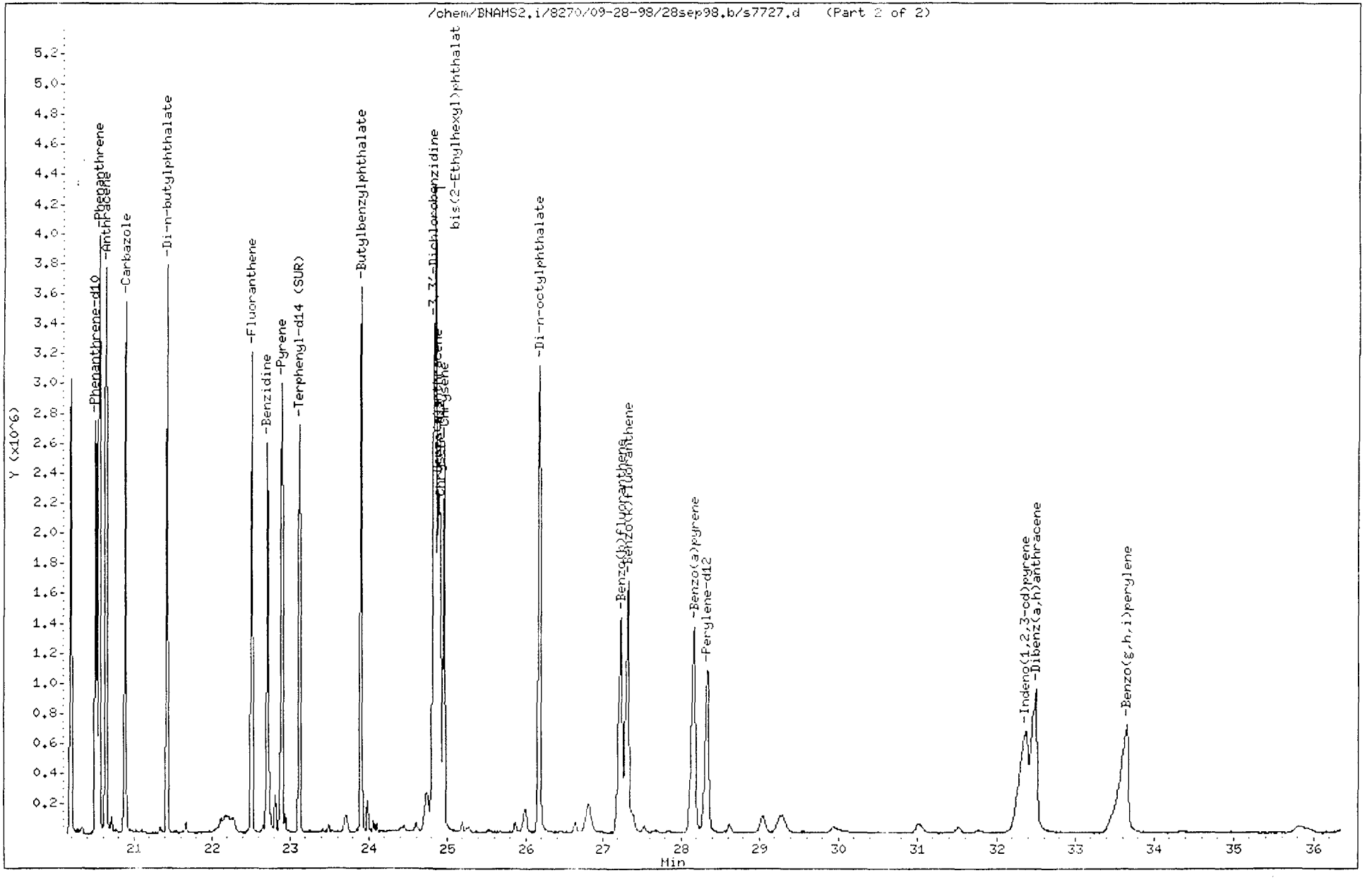
Instrument: BNAMS2.i

Operator: BNAMS3

Column phase: DB-5

Column diameter: 0.25

304000



Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7730.d
Report Date: 09-Nov-1998 10:34

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7730.d
Lab Smp Id: SSTD020
Inj Date : 28-SEP-1998 15:24
Operator : BNAMS3 Inst ID: BNAMS2.i
Smp Info : SSTD020
Misc Info : 20 PPM BNA STD
Comment :
Method : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/8270C-REV..m
Meth Date : 28-Sep-98 17:27:38 lisa Quant Type: ISTD
Cal Date : 28-SEP-1998 15:24 Cal File: s7730.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.719	4.712	(0.365)	163991	20.0000	21(M)
19 N-Nitrosodimethylamine	74	5.885	5.892	(0.455)	283752	20.0000	20(M)
71 Pyridine	79	5.951	5.990	(0.460)	418759	20.0000	20(M)
$ 16 2-Fluorophenol (SUR)	112	10.485	10.480	(0.810)	401270	20.0000	21
$ 17 Phenol-d5 (SUR)	99	12.306	12.301	(0.951)	552953	20.0000	21
1 Phenol	94	12.333	12.327	(0.953)	615012	20.0000	23
73 Aniline	93	12.352	12.347	(0.954)	678293	20.0000	24
20 bis(2-Chloroethyl)ether	93	12.484	12.478	(0.964)	461855	20.0000	21
2 2-Chlorophenol	128	12.569	12.563	(0.971)	380035	20.0000	21
21 1,3-Dichlorobenzene	146	12.838	12.832	(0.992)	446093	20.0000	22
* 79 1,4-Dichlorobenzene-d4	152	12.943	12.937	(1.000)	542055	40.0000	
22 1,4-Dichlorobenzene	146	12.970	12.970	(1.002)	436090	20.0000	22
74 Benzyl Alcohol	108	13.186	13.180	(1.019)	298251	20.0000	21
23 1,2-Dichlorobenzene	146	13.232	13.233	(1.022)	432566	20.0000	23

304001

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7730.d
Report Date: 09-Nov-1998 10:34

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
3 2-Methylphenol	108	13.384	13.377	(1.034)	394193	20.0000	22
24 bis(2-chloroisopropyl)ether	45	13.423	13.410	(1.037)	510235	20.0000	21(M)
4 4-Methylphenol	108	13.640	13.633	(1.054)	372684	20.0000	24
25 N-Nitroso-di-n-propylamine	70	13.640	13.633	(1.054)	248776	20.0000	22
104 Acetophenone	105	13.640	13.633	(1.054)	515239	20.0000	23
26 Hexachloroethane	117	13.817	13.816	(1.068)	170541	20.0000	22
$ 76 Nitrobenzene-d5 (SUR)	82	13.896	13.889	(0.919)	391933	20.0000	21
27 Nitrobenzene	77	13.936	13.928	(0.921)	514849	20.0000	23
107 N,N-Dimethylaniline	120	13.936	13.928	(1.077)	554083	20.0000	24
28 Isophorone	82	14.336	14.328	(0.948)	802900	20.0000	20
5 2-Nitrophenol	139	14.474	14.465	(0.957)	246999	20.0000	22
6 2,4-Dimethylphenol	122	14.540	14.531	(0.961)	353932	20.0000	22
15 Benzoic Acid	122	14.711	14.636	(0.973)	238315	20.0000	20(H)
29 bis(2-Chloroethoxy)methane	93	14.698	14.695	(0.972)	457072	20.0000	22
7 2,4-Dichlorophenol	162	14.882	14.879	(0.984)	340486	20.0000	22
30 1,2,4-Trichlorobenzene	180	15.020	15.017	(0.993)	325126	20.0000	22
* 80 Naphthalene-d8	136	15.126	15.122	(1.000)	1834891	40.0000	
31 Naphthalene	128	15.159	15.155	(1.002)	989441	20.0000	23
32 4-Chloroaniline	127	15.238	15.234	(1.007)	485677	20.0000	22
33 Hexachlorobutadiene	225	15.357	15.352	(1.015)	135268	20.0000	23
8 4-Chloro-3-methylphenol	107	16.026	16.027	(1.060)	341968	20.0000	22
34 2-Methylnaphthalene	142	16.308	16.308	(1.078)	722054	20.0000	23
35 Hexachlorocyclopentadiene	237	16.565	16.564	(0.918)	113346	20.0000	20
9 2,4,6-Trichlorophenol	196	16.768	16.768	(0.929)	207775	20.0000	22
10 2,4,5-Trichlorophenol	196	16.828	16.827	(0.933)	220971	20.0000	22
$ 77 2-Fluorobiphenyl (SUR)	172	16.913	16.906	(0.937)	794210	20.0000	23
102 Diphenyl	154	17.078	17.076	(0.946)	903819	20.0000	24
36 2-Chloronaphthalene	162	17.124	17.116	(0.949)	676281	20.0000	23
103 Diphenyl Ether	170	17.249	17.247	(0.956)	470099	20.0000	23
37 2-Nitroaniline	65	17.276	17.274	(0.957)	234371	20.0000	24
38 Dimethylphthalate	163	17.571	17.562	(0.974)	868914	20.0000	22
40 2,6-Dinitrotoluene	165	17.676	17.667	(0.980)	218316	20.0000	21
39 Acenaphthylene	152	17.808	17.805	(0.987)	1167282	20.0000	23
41 3-Nitroaniline	138	17.952	17.949	(0.995)	158570	20.0000	21
* 82 Acenaphthene-d10	164	18.044	18.041	(1.000)	1083554	40.0000	
42 Acenaphthene	153	18.097	18.094	(1.003)	679636	20.0000	23
11 2,4-Dinitrophenol	184	18.137	18.120	(1.005)	397089	50.0000	50
12 4-Nitrophenol	65	18.223	18.213	(1.010)	347129	50.0000	51
44 2,4-Dinitrotoluene	165	18.342	18.331	(1.016)	305301	20.0000	22
43 Dibenzofuran	168	18.381	18.377	(1.019)	973320	20.0000	23
45 Diethylphthalate	149	18.736	18.724	(1.038)	856423	20.0000	22
46 4-Chlorophenyl-phenylether	204	18.933	18.934	(1.049)	294474	20.0000	24
47 Fluorene	166	18.953	18.941	(1.050)	750389	20.0000	24
48 4-Nitroaniline	138	18.973	18.954	(1.051)	239250	20.0000	21
13 4,6-Dinitro-2-methylphenol	198	19.019	19.007	(0.928)	395682	50.0000	52
49 N-Nitrosodiphenylamine	169	19.125	19.119	(0.933)	540858	20.0000	22
75 1,2-Diphenylhydrazine	77	19.197	19.191	(0.936)	839299	20.0000	23

304002

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7730.d
Report Date: 09-Nov-1998 10:34

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 18 2,4,6-Tribromophenol (SUR)	330	19.342	19.342	(1.072)	145029	20.0000	22
50 4-Bromophenyl-phenylether	248	19.749	19.742	(0.963)	176547	20.0000	23
51 Hexachlorobenzene	284	19.861	19.853	(0.969)	215508	20.0000	22
14 Pentachlorophenol	266	20.176	20.175	(0.984)	363887	50.0000	53
* 83 Phenanthrene-d10	188	20.504	20.503	(1.000)	1737785	40.0000	
52 Phenanthrene	178	20.544	20.543	(1.002)	1046691	20.0000	23
53 Anthracene	178	20.630	20.621	(1.006)	1126207	20.0000	24
54 Carbazole	167	20.879	20.871	(1.018)	1110300	20.0000	23
55 Di-n-butylphthalate	149	21.424	21.421	(1.045)	1486668	20.0000	24
56 Fluoranthene	202	22.503	22.502	(1.097)	943616	20.0000	24
58 Benzidine	184	22.713	22.706	(1.108)	1689174	50.0000	66
57 Pyrene	202	22.884	22.877	(0.919)	958335	20.0000	23
$ 78 Terphenyl-d14 (SUR)	244	23.115	23.106	(0.928)	645029	20.0000	23
59 Butylbenzylphthalate	149	23.902	23.893	(0.960)	687942	20.0000	22
60 3,3'-Dichlorobenzidine	252	24.809	24.791	(0.996)	866194	50.0000	57
61 Benzo(a)anthracene	228	24.870	24.864	(0.999)	750380	20.0000	22
63 bis(2-Ethylhexyl)phthalate	149	24.843	24.837	(0.998)	898362	20.0000	25
* 81 Chrysene-d12	240	24.896	24.897	(1.000)	1105391	40.0000	
62 Chrysene	228	24.943	24.931	(1.002)	704873	20.0000	22
64 Di-n-octylphthalate	149	26.155	26.150	(0.923)	1601093	20.0000	22
65 Benzo(b)fluoranthene	252	27.209	27.179	(0.961)	833254	20.0000	20
66 Benzo(k)fluoranthene	252	27.282	27.252	(0.963)	855439	20.0000	22
67 Benzo(a)pyrene	252	28.131	28.104	(0.993)	805638	20.0000	21
* 84 Perylene-d12	264	28.323	28.308	(1.000)	1210000	40.0000	
68 Indeno(1,2,3-cd)pyrene	276	32.291	32.235	(1.140)	780341	20.0000	20
69 Dibenz(a,h)anthracene	278	32.410	32.334	(1.144)	755897	20.0000	20
70 Benzo(g,h,i)perylene	276	33.553	33.481	(1.185)	826253	20.0000	21(H)

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304003

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7730.d
Date : 28-SEP-1998 15:24
Client ID:
Sample Info: SSTD020

Instrument: BNAMS2.i

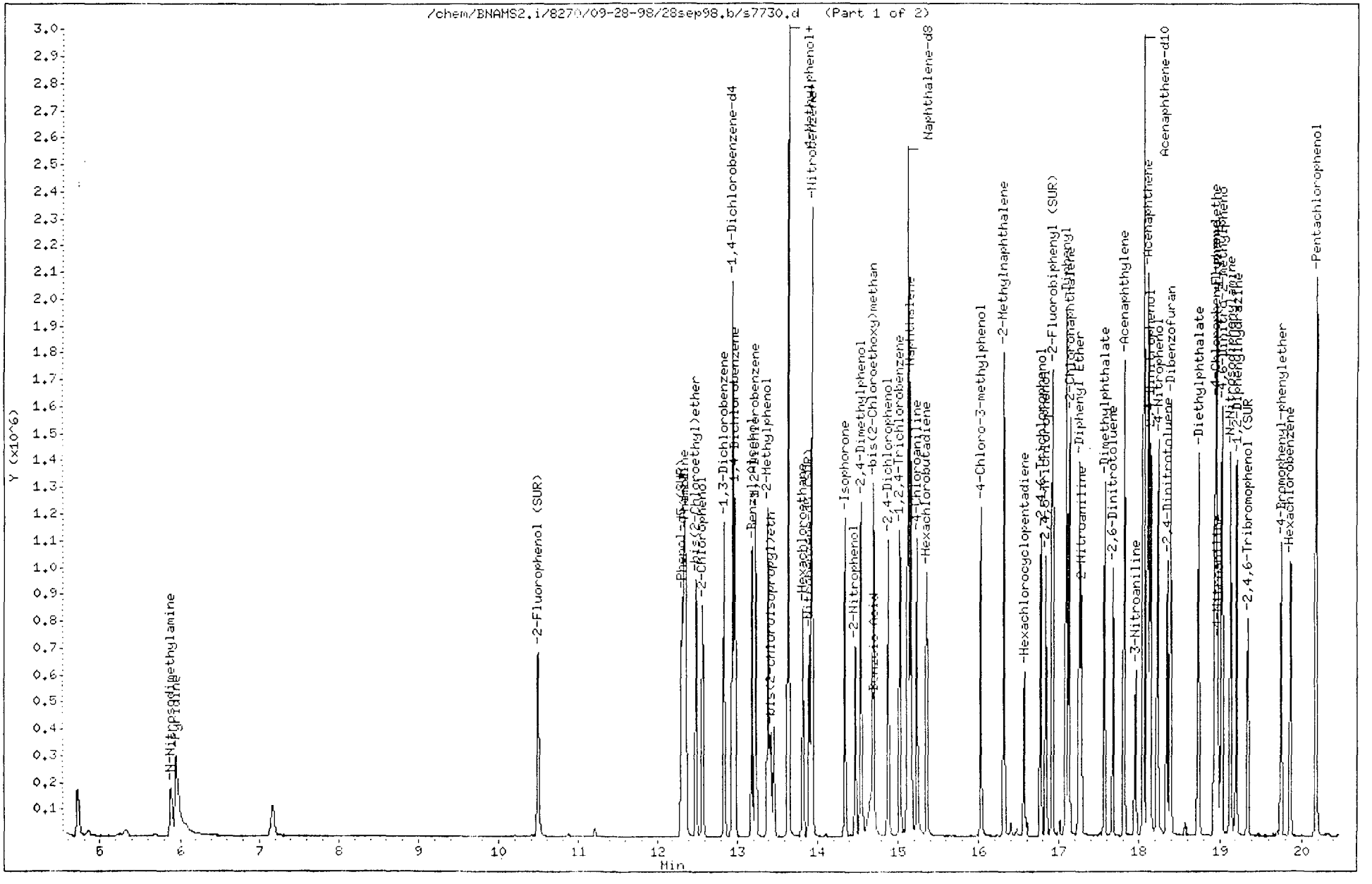
Operator: BNAMS3

Column phase: DB-5

Column diameter: 0.25

304004

467



Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7730.d
Date : 28-SEP-1998 15:24
Client ID:
Sample Info: SSTD020

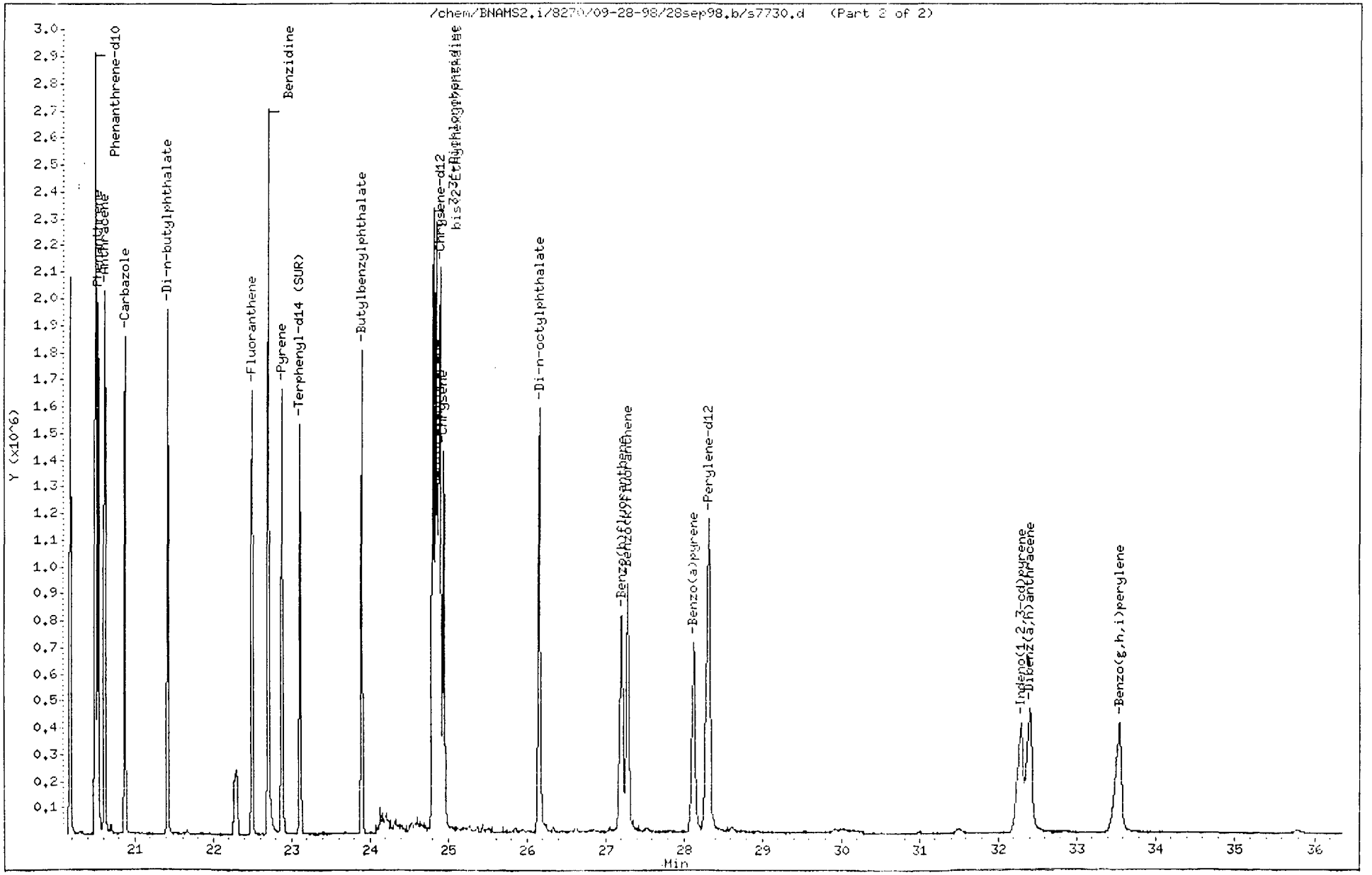
Instrument: BNAMS2.i

Operator: BNAMS3

304005

Column phase: DB-5

Column diameter: 0.25



468

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7732.d
Report Date: 09-Nov-1998 10:34

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7732.d
Lab Smp Id: SSTD005
Inj Date : 28-SEP-1998 16:53
Operator : BNAMS3 Inst ID: BNAMS2.i
Smp Info : SSTD005
Misc Info : 5 PPM BNA STD
Comment :
Method : /chem/BNAMS2.i/8270/09-28-98/28sep98.b/8270C-REV..m
Meth Date : 28-Sep-98 17:27:38 lisa Quant Type: ISTD
Cal Date : 28-SEP-1998 16:53 Cal File: s7732.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.712	4.712	(0.364)	42975	5.00000	5.5(M)
19 N-Nitrosodimethylamine	74	5.892	5.892	(0.455)	63819	5.00000	4.6(aM)
71 Pyridine	79	5.990	5.990	(0.463)	93006	5.00000	4.5(aM)
$ 16 2-Fluorophenol (SUR)	112	10.480	10.480	(0.810)	96037	5.00000	5.0(a)
$ 17 Phenol-d5 (SUR)	99	12.301	12.301	(0.951)	137051	5.00000	5.2
1 Phenol	94	12.327	12.327	(0.953)	158080	5.00000	5.8
73 Aniline	93	12.347	12.347	(0.954)	174843	5.00000	6.0
20 bis(2-Chloroethyl)ether	93	12.478	12.478	(0.965)	13246	0.50000	0.59
2 2-Chlorophenol	128	12.563	12.563	(0.971)	93090	5.00000	5.2
21 1,3-Dichlorobenzene	146	12.832	12.832	(0.992)	119948	5.00000	5.8
* 79 1,4-Dichlorobenzene-d4	152	12.937	12.937	(1.000)	538930	40.0000	
22 1,4-Dichlorobenzene	146	12.970	12.970	(1.003)	111367	5.00000	5.6
74 Benzyl Alcohol	108	13.180	13.180	(1.019)	75128	5.00000	5.3
23 1,2-Dichlorobenzene	146	13.233	13.233	(1.023)	103546	5.00000	5.4

304006

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7732.d
Report Date: 09-Nov-1998 10:34

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
3 2-Methylphenol	108	13.377	13.377	(1.034)	97594	5.00000	5.4
24 bis(2-chloroisopropyl)ether	45	13.410	13.410	(1.037)	144749	5.00000	5.8(M)
4 4-Methylphenol	108	13.633	13.633	(1.054)	99472	5.00000	6.1
25 N-Nitroso-di-n-propylamine	70	13.633	13.633	(1.054)	6634	0.50000	0.58
104 Acetophenone	105	13.633	13.633	(1.054)	147765	5.00000	6.3
26 Hexachloroethane	117	13.816	13.816	(1.068)	4371	0.50000	0.55
$ 76 Nitrobenzene-d5 (SUR)	82	13.889	13.889	(0.918)	97529	5.00000	5.1
27 Nitrobenzene	77	13.928	13.928	(0.921)	15122	0.50000	0.62
107 N,N-Dimethylaniline	120	13.928	13.928	(1.077)	15217	0.50000	0.61
28 Isophorone	82	14.328	14.328	(0.947)	210676	5.00000	5.2
5 2-Nitrophenol	139	14.465	14.465	(0.957)	58950	5.00000	5.0
6 2,4-Dimethylphenol	122	14.531	14.531	(0.961)	90818	5.00000	5.3
15 Benzoic Acid	122	14.636	14.636	(0.968)	40351	5.00000	3.5(aH)
29 bis(2-Chloroethoxy)methane	93	14.695	14.695	(0.972)	148743	5.00000	6.5
7 2,4-Dichlorophenol	162	14.879	14.879	(0.984)	85435	5.00000	5.3
30 1,2,4-Trichlorobenzene	180	15.017	15.017	(0.993)	10480	0.50000	0.64
* 80 Naphthalene-d8	136	15.122	15.122	(1.000)	1872464	40.0000	
31 Naphthalene	128	15.155	15.155	(1.002)	284167	5.00000	6.1
32 4-Chloroaniline	127	15.234	15.234	(1.007)	133413	5.00000	5.8
33 Hexachlorobutadiene	225	15.352	15.352	(1.015)	6849	1.00000	1.1
8 4-Chloro-3-methylphenol	107	16.027	16.027	(1.060)	89759	5.00000	5.5
34 2-Methylnaphthalene	142	16.308	16.308	(1.078)	202162	5.00000	6.1
35 Hexachlorocyclopentadiene	237	16.564	16.564	(0.918)	33807	5.00000	5.6
9 2,4,6-Trichlorophenol	196	16.768	16.768	(0.929)	53008	5.00000	5.3
10 2,4,5-Trichlorophenol	196	16.827	16.827	(0.933)	57381	5.00000	5.4
$ 77 2-Fluorobiphenyl (SUR)	172	16.906	16.906	(0.937)	216467	5.00000	5.9
102 Diphenyl	154	17.076	17.076	(0.947)	247704	5.00000	6.0
36 2-Chloronaphthalene	162	17.116	17.116	(0.949)	189776	5.00000	5.9
103 Diphenyl Ether	170	17.247	17.247	(0.956)	138296	5.00000	6.1
37 2-Nitroaniline	65	17.274	17.274	(0.957)	115201	10.0000	11
38 Dimethylphthalate	163	17.562	17.562	(0.973)	233979	5.00000	5.7
40 2,6-Dinitrotoluene	165	17.667	17.667	(0.979)	10276	1.00000	0.98(a)
39 Acenaphthylene	152	17.805	17.805	(0.987)	303950	5.00000	5.7
41 3-Nitroaniline	138	17.949	17.949	(0.995)	124222	10.0000	14
* 82 Acenaphthene-d10	164	18.041	18.041	(1.000)	1115567	40.0000	
42 Acenaphthene	153	18.094	18.094	(1.003)	186875	5.00000	6.0
11 2,4-Dinitrophenol	184	18.120	18.120	(1.004)	124629	20.0000	16(a)
12 4-Nitrophenol	65	18.213	18.213	(1.010)	142074	20.0000	20(a)
44 2,4-Dinitrotoluene	165	18.331	18.331	(1.016)	16765	1.00000	1.1
43 Dibenzofuran	168	18.377	18.377	(1.019)	280377	5.00000	6.1
45 Diethylphthalate	149	18.724	18.724	(1.038)	277711	5.00000	6.6
46 4-Chlorophenyl-phenylether	204	18.934	18.934	(1.050)	83306	5.00000	6.3
47 Fluorene	166	18.941	18.941	(1.050)	223675	5.00000	6.5
48 4-Nitroaniline	138	18.954	18.954	(1.051)	128057	10.0000	11
13 4,6-Dinitro-2-methylphenol	198	19.007	19.007	(0.927)	153454	20.0000	20(a)
49 N-Nitrosodiphenylamine	169	19.119	19.119	(0.932)	165451	5.00000	6.3
75 1,2-Diphenylhydrazine	77	19.191	19.191	(0.936)	253873	5.00000	6.4

304007

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7732.d
Report Date: 09-Nov-1998 10:34

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 18 2,4,6-Tribromophenol (SUR)	330	19.342	19.342	(1.072)	37098	5.00000	5.3
50 4-Bromophenyl-phenylether	248	19.742	19.742	(0.963)	51277	5.00000	6.2
51 Hexachlorobenzene	284	19.853	19.853	(0.968)	6266	0.50000	0.61
14 Pentachlorophenol	266	20.175	20.175	(0.984)	143469	20.0000	20
* 83 Phenanthrene-d10	188	20.503	20.503	(1.000)	1753858	40.0000	
52 Phenanthrene	178	20.543	20.543	(1.002)	303965	5.00000	6.3
53 Anthracene	178	20.621	20.621	(1.006)	294887	5.00000	6.0
54 Carbazole	167	20.871	20.871	(1.018)	316302	5.00000	6.2
55 Di-n-butylphthalate	149	21.421	21.421	(1.045)	438478	5.00000	6.5
56 Fluoranthene	202	22.502	22.502	(1.098)	275692	5.00000	6.4
58 Benzidine	184	22.706	22.706	(1.107)	766091	20.0000	27
57 Pyrene	202	22.877	22.877	(0.919)	265103	5.00000	5.7
$ 78 Terphenyl-d14 (SUR)	244	23.106	23.106	(0.928)	177168	5.00000	5.8
59 Butylbenzylphthalate	149	23.893	23.893	(0.960)	203240	5.00000	6.0
60 3,3'-Dichlorobenzidine	252	24.791	24.791	(0.996)	182412	10.0000	11
61 Benzo(a)anthracene	228	24.864	24.864	(0.999)	23451	0.50000	0.61
63 bis(2-Ethylhexyl)phthalate	149	24.837	24.837	(0.998)	230595	5.00000	5.8
* 81 Chrysene-d12	240	24.897	24.897	(1.000)	1173559	40.0000	
62 Chrysene	228	24.931	24.931	(1.001)	193342	5.00000	5.5
64 Di-n-octylphthalate	149	26.150	26.150	(0.924)	427710	5.00000	5.4
65 Benzo(b)fluoranthene	252	27.179	27.179	(0.960)	24937	0.50000	0.55
66 Benzo(k)fluoranthene	252	27.252	27.252	(0.963)	25496	0.50000	0.58
67 Benzo(a)pyrene	252	28.104	28.104	(0.993)	22247	0.50000	0.52
* 84 Perylene-d12	264	28.308	28.308	(1.000)	1311014	40.0000	
68 Indeno(1,2,3-cd)pyrene	276	32.235	32.235	(1.139)	20368	0.50000	0.48(a)
69 Dibenz(a,h)anthracene	278	32.334	32.334	(1.142)	20234	0.50000	0.50
70 Benzo(g,h,i)perylene	276	33.481	33.481	(1.183)	216670	5.00000	5.1

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304008

Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7732.d
Date : 28-SEP-1998 16:53
Client ID:
Sample Info: SSTD005

Instrument: BNAMS2.i

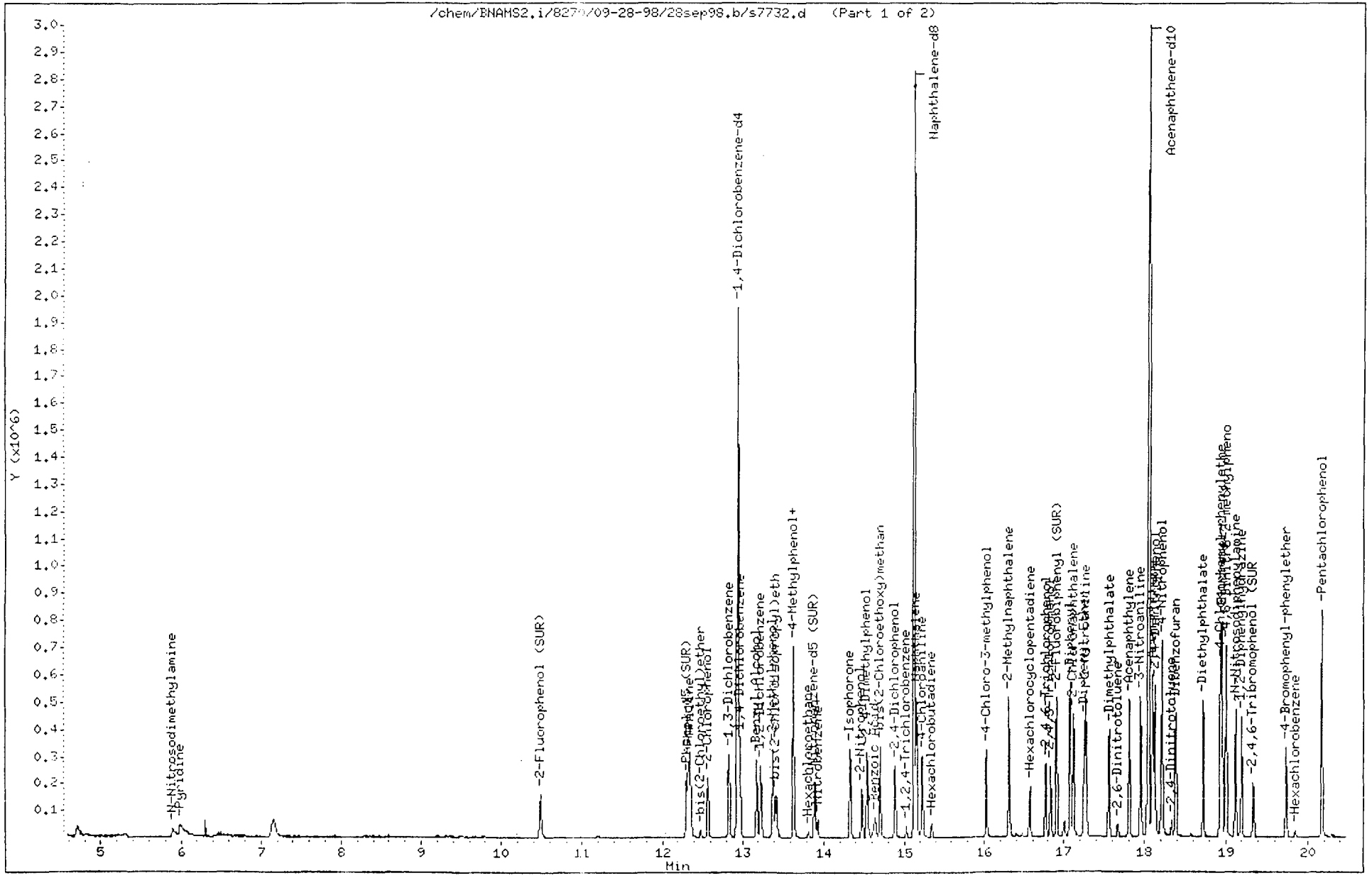
Operator: BNAMS3

Column phase: DB-5

Column diameter: 0.25

304009

472



Data File: /chem/BNAMS2.i/8270/09-28-98/28sep98.b/s7732.d
Date : 28-SEP-1998 16:53
Client ID:
Sample Info: SSTD005

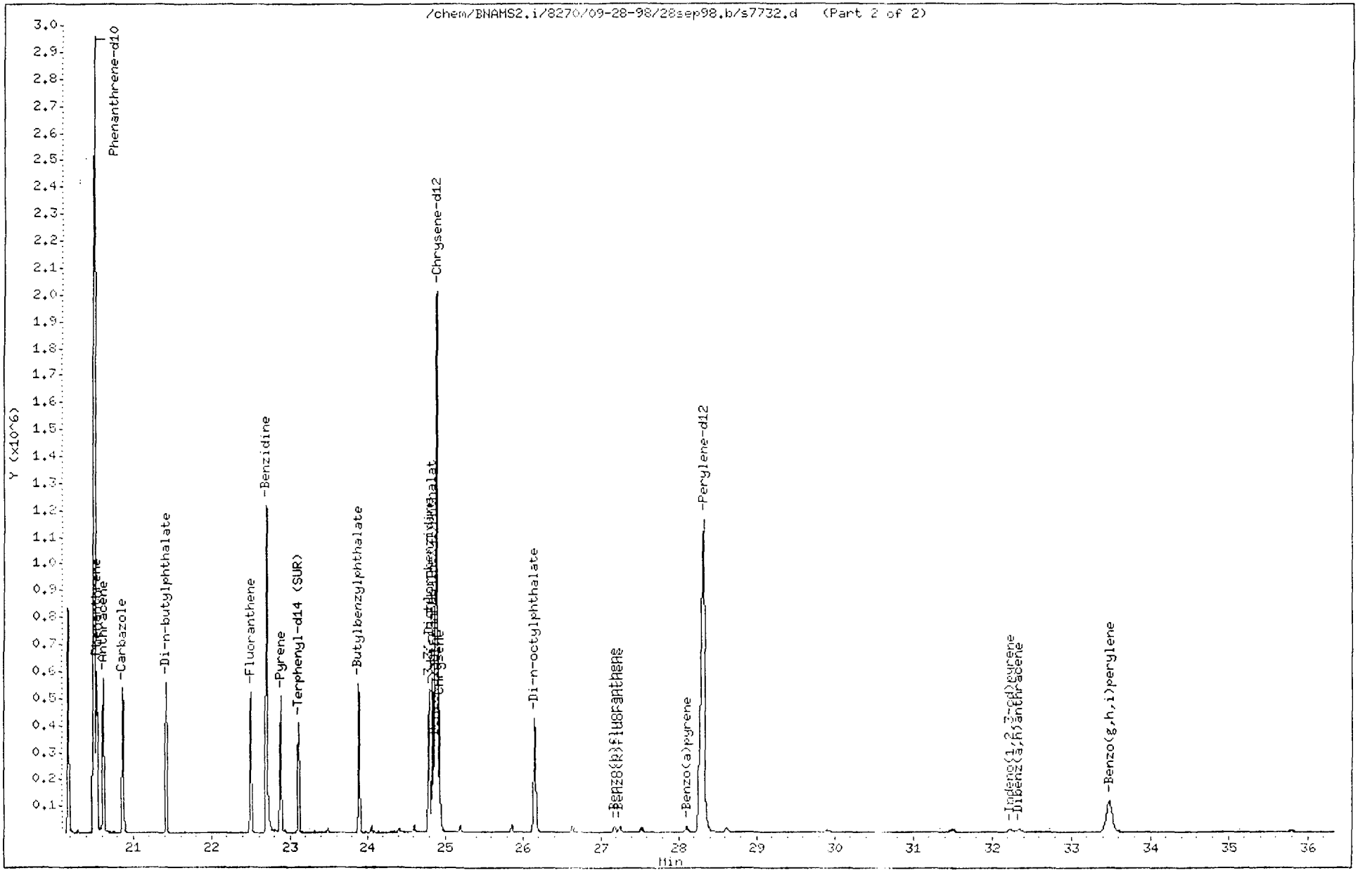
Instrument: BNAMS2.i

Operator: BNAMS3

304010

Column phase: DB-5

Column diameter: 0.25



473

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date: 10/16/98 Time: 0949

Lab File ID: S8212 Init. Calib. Date(s): 09/28/98 09/28/98

Init. Calib. Times: 1257 1653

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	2.024	1.990		1.7	20.0
2-Chlorophenol	1.325	1.258		5.0	20.0
2-Methylphenol	1.351	1.295		4.1	20.0
4-Methylphenol	1.203	1.170		2.7	20.0
2-Nitrophenol	0.250	0.258		-3.2	20.0
2,4-Dimethylphenol	0.363	0.338		6.9	20.0
2,4-Dichlorophenol	0.344	0.356		-3.3	20.0
4-Chloro-3-methylphenol	0.348	0.352		-1.1	20.0
2,4,6-Trichlorophenol	0.360	0.340		5.6	20.0
2,4,5-Trichlorophenol	0.379	0.356		6.1	20.0
2,4-Dinitrophenol	0.279	0.286	0.05	-2.5	20.0
4-Nitrophenol	0.253	0.229	0.05	9.5	20.0
4,6-Dinitro-2-methylphenol	0.176	0.173		1.7	20.0
Pentachlorophenol	0.160	0.147		8.1	20.0
Benzoic Acid	0.245	0.225		8.2	20.0
N-Nitrosodimethylamine	1.024	1.049		-2.4	20.0
bis(2-Chloroethyl)ether	1.668	1.604		3.8	20.0
1,3-Dichlorobenzene	1.537	1.488		3.2	20.0
1,4-Dichlorobenzene	1.471	1.444		1.8	20.0
1,2-Dichlorobenzene	1.424	1.406		1.3	20.0
bis(2-chloroisopropyl)ether	1.837	1.638		10.8	20.0
N-Nitroso-di-n-propylamine	0.852	0.798	0.05	6.3	20.0
Hexachloroethane	0.589	0.582		1.2	20.0
Nitrobenzene	0.523	0.496		5.2	20.0
Isophorone	0.863	0.870		0.1	20.0
bis(2-Chloroethoxy)methane	0.491	0.463		5.7	20.0
1,2,4-Trichlorobenzene	0.348	0.328		5.7	20.0
Naphthalene	1.001	0.928		7.3	20.0
4-Chloroaniline	0.491	0.468		4.7	20.0
Hexachlorobutadiene	0.133	0.133		0.0	20.0
2-Methylnaphthalene	0.712	0.680		4.5	20.0
Hexachlorocyclopentadiene	0.218	0.146	0.05	33.0	20.0
2-Chloronaphthalene	1.154	1.122		2.8	20.0
2-Nitroaniline	0.377	0.347		8.0	20.0
Dimethylphthalate	1.479	1.437		2.8	20.0
Acenaphthylene	1.909	1.853		2.9	20.0
2,6-Dinitrotoluene	0.376	0.378		-0.0	20.0

304011

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date: 10/16/98 Time: 0949

Lab File ID: S8212 Init. Calib. Date(s): 09/28/98 09/28/98

Init. Calib. Times: 1257 1653

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
3-Nitroaniline	0.316	0.285		9.8	20.0
Acenaphthene	1.122	1.106		1.4	20.0
Dibenzofuran	1.635	1.530		6.4	20.0
2,4-Dinitrotoluene	0.537	0.503		6.3	20.0
Diethylphthalate	1.518	1.417		6.6	20.0
4-Chlorophenyl-phenylether	0.475	0.410		13.7	20.0
Fluorene	1.227	1.130		7.9	20.0
4-Nitroaniline	0.428	0.409		4.4	20.0
N-Nitrosodiphenylamine	0.599	0.570		4.8	20.0
4-Bromophenyl-phenylether	0.189	0.184		2.6	20.0
Hexachlorobenzene	0.233	0.227		2.6	20.0
Phenanthrene	1.098	1.066		2.9	20.0
Anthracene	1.119	1.135		-1.4	20.0
Carbazole	1.163	1.188		-2.1	20.0
Di-n-butylphthalate	1.530	1.535		-0.0	20.0
Fluoranthene	0.976	0.973		0.3	20.0
Pyrene	1.588	1.543		2.8	20.0
Benzidine	0.647	0.631		2.5	20.0
Butylbenzylphthalate	1.164	1.105		5.1	20.0
3,3'-Dichlorobenzidine	0.562	0.546		2.8	20.0
Benzo(a)anthracene	1.306	1.085		16.9	20.0
Chrysene	1.202	1.141		5.1	20.0
bis(2-Ethylhexyl)phthalate	1.348	1.232		8.6	20.0
Di-n-octylphthalate	2.434	2.294		5.8	20.0
Benzo(b)fluoranthene	1.386	1.342		3.2	20.0
Benzo(k)fluoranthene	1.331	1.321		0.8	20.0
Benzo(a)pyrene	1.294	1.270		1.8	20.0
Indeno(1,2,3-cd)pyrene	1.286	1.369		-6.4	20.0
Dibenz(a,h)anthracene	1.227	1.254		-2.2	20.0
Benzo(g,h,i)perylene	1.304	1.324		-1.5	20.0
Pyridine	1.536	1.509		1.8	20.0
Aniline	2.176	2.123		2.4	20.0
Benzyl Alcohol	1.046	1.025		2.0	20.0
1,2-Diphenylhydrazine	0.901	0.845		6.2	20.0
Diphenyl	1.471	1.426		3.0	20.0
Diphenyl Ether	0.809	0.788		2.6	20.0
Acetophenone	1.736	1.750	0.01	0.1	20.0

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date: 10/16/98 Time: 0949

Lab File ID: S8212 Init. Calib. Date(s): 09/28/98 09/28/98

Init. Calib. Times: 1257 1653

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,4-Dioxane	0.583	0.608	0.01	-4.1	20.0
N,N-Dimethylaniline	1.840	1.707	0.01	7.2	20.0
2-Fluorophenol (SUR)	1.430	1.359		5.0	20.0
Phenol-d5 (SUR)	1.938	1.849		4.6	20.0
2,4,6-Tribromophenol (SUR)	0.249	0.255		-2.4	20.0
Nitrobenzene-d5 (SUR)	0.410	0.414		0.1	20.0
2-Fluorobiphenyl (SUR)	1.312	1.248		4.9	20.0
Terphenyl-d14 (SUR)	1.041	1.038		0.3	20.0

Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8212.d
Report Date: 09-Nov-1998 10:33

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8212.d
Lab Smp Id: SSTD289
Inj Date : 16-OCT-1998 09:49
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SSTD289
Misc Info : 50 PPM BNA STD
Comment :
Method : /chem/BNAMS2.i/8270/09-28-98/16oct98.b/8270C-REV..m
Meth Date : 16-Oct-98 10:14:54 Quant Type: ISTD
Cal Date : 28-SEP-1998 16:53 Cal File: s7732.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.287	4.287	(0.339)	509885	50.0000	52
19 N-Nitrosodimethylamine	74	5.363	5.363	(0.424)	879320	50.0000	51
71 Pyridine	79	5.389	5.389	(0.426)	1265150	50.0000	49
$ 16 2-Fluorophenol (SUR)	112	10.174	10.174	(0.804)	1139088	50.0000	48
$ 17 Phenol-d5 (SUR)	99	12.062	12.062	(0.953)	1549925	50.0000	48
1 Phenol	94	12.095	12.095	(0.955)	1667817	50.0000	49
73 Aniline	93	12.076	12.076	(0.954)	1779263	50.0000	49
20 bis(2-Chloroethyl)ether	93	12.221	12.221	(0.965)	1344509	50.0000	48
2 2-Chlorophenol	128	12.286	12.286	(0.970)	1054779	50.0000	48
21 1,3-Dichlorobenzene	146	12.556	12.556	(0.992)	1246781	50.0000	48
* 79 1,4-Dichlorobenzene-d4	152	12.661	12.661	(1.000)	670526	40.0000	
22 1,4-Dichlorobenzene	146	12.688	12.688	(1.002)	1210511	50.0000	49
74 Benzyl Alcohol	108	12.931	12.931	(1.021)	859465	50.0000	49
23 1,2-Dichlorobenzene	146	12.951	12.951	(1.023)	1178604	50.0000	49

304014

Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8212.d
Report Date: 09-Nov-1998 10:33

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
3 2-Methylphenol	108	13.135	13.135	(1.037)	1085251	50.0000	48
24 bis(2-chloroisopropyl)ether	45	13.155	13.155	(1.039)	1372632	50.0000	44(M)
4 4-Methylphenol	108	13.399	13.399	(1.058)	980630	50.0000	49
25 N-Nitroso-di-n-propylamine	70	13.405	13.405	(1.059)	669319	50.0000	47
104 Acetophenone	105	13.385	13.385	(1.057)	1467162	50.0000	50
26 Hexachloroethane	117	13.530	13.530	(1.069)	487687	50.0000	49
$ 76 Nitrobenzene-d5 (SUR)	82	13.636	13.636	(0.918)	1185492	50.0000	50
27 Nitrobenzene	77	13.675	13.675	(0.921)	1420604	50.0000	47
107 N,N-Dimethylaniline	120	13.675	13.675	(1.080)	1430507	50.0000	46
28 Isophorone	82	14.089	14.089	(0.949)	2491273	50.0000	50
5 2-Nitrophenol	139	14.208	14.208	(0.957)	738334	50.0000	51
6 2,4-Dimethylphenol	122	14.294	14.294	(0.963)	968845	50.0000	47
15 Benzoic Acid	122	14.564	14.564	(0.981)	644731	50.0000	46
29 bis(2-Chloroethoxy)methane	93	14.446	14.446	(0.973)	1325969	50.0000	47
7 2,4-Dichlorophenol	162	14.624	14.624	(0.985)	1020350	50.0000	52
30 1,2,4-Trichlorobenzene	180	14.749	14.749	(0.993)	938652	50.0000	47
* 80 Naphthalene-d8	136	14.849	14.849	(1.000)	2290711	40.0000	
31 Naphthalene	128	14.888	14.888	(1.003)	2658672	50.0000	46
32 4-Chloroaniline	127	14.974	14.974	(1.008)	1339489	50.0000	48
33 Hexachlorobutadiene	225	15.080	15.080	(1.016)	380361	50.0000	50
8 4-Chloro-3-methylphenol	107	15.770	15.770	(1.062)	1008825	50.0000	50
34 2-Methylnaphthalene	142	16.033	16.033	(1.080)	1946254	50.0000	48
35 Hexachlorocyclopentadiene	237	16.284	16.284	(0.917)	252396	50.0000	34
9 2,4,6-Trichlorophenol	196	16.502	16.502	(0.929)	587470	50.0000	47
10 2,4,5-Trichlorophenol	196	16.568	16.568	(0.933)	615960	50.0000	47
$ 77 2-Fluorobiphenyl (SUR)	172	16.641	16.641	(0.937)	2156729	50.0000	48
102 Diphenyl	154	16.813	16.813	(0.946)	2464846	50.0000	48
36 2-Chloronaphthalene	162	16.846	16.846	(0.948)	1939713	50.0000	49
103 Diphenyl Ether	170	16.978	16.978	(0.956)	1362298	50.0000	49
37 2-Nitroaniline	65	17.018	17.018	(0.958)	599992	50.0000	46
38 Dimethylphthalate	163	17.308	17.308	(0.974)	2483500	50.0000	48
40 2,6-Dinitrotoluene	165	17.421	17.421	(0.981)	653460	50.0000	50
39 Acenaphthylene	152	17.533	17.533	(0.987)	3203454	50.0000	48
41 3-Nitroaniline	138	17.698	17.698	(0.996)	492096	50.0000	45
* 82 Acenaphthene-d10	164	17.764	17.764	(1.000)	1382697	40.0000	
42 Acenaphthene	153	17.824	17.824	(1.003)	1911884	50.0000	49
11 2,4-Dinitrophenol	184	17.884	17.884	(1.007)	792285	80.0000	82
12 4-Nitrophenol	65	17.990	17.990	(1.013)	633221	80.0000	72
44 2,4-Dinitrotoluene	165	18.089	18.089	(1.018)	870121	50.0000	47
43 Dibenzofuran	168	18.109	18.109	(1.019)	2644272	50.0000	47
45 Diethylphthalate	149	18.479	18.479	(1.040)	2449637	50.0000	47
46 4-Chlorophenyl-phenylether	204	18.657	18.657	(1.050)	708666	50.0000	43
47 Fluorene	166	18.677	18.677	(1.051)	1953155	50.0000	46
48 4-Nitroaniline	138	18.744	18.744	(1.055)	707675	50.0000	48
13 4,6-Dinitro-2-methylphenol	198	18.777	18.777	(0.929)	746831	80.0000	78
49 N-Nitrosodiphenylamine	169	18.863	18.863	(0.933)	1541025	50.0000	48
75 1,2-Diphenylhydrazine	77	18.929	18.929	(0.936)	2284596	50.0000	47

304015

Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8212.d
Report Date: 09-Nov-1998 10:33

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 18 2,4,6-Tribromophenol (SUR)	330	19.068	19.068	(1.073)	441494	50.0000	51
50 4-Bromophenyl-phenylether	248	19.471	19.471	(0.963)	498399	50.0000	49
51 Hexachlorobenzene	284	19.577	19.577	(0.968)	614036	50.0000	49
14 Pentachlorophenol	266	19.907	19.907	(0.985)	636875	80.0000	74
* 83 Phenanthrene-d10	188	20.218	20.218	(1.000)	2162417	40.0000	
52 Phenanthrene	178	20.265	20.265	(1.002)	2882249	50.0000	48
53 Anthracene	178	20.351	20.351	(1.007)	3067528	50.0000	51
54 Carbazole	167	20.609	20.609	(1.019)	3211845	50.0000	51
55 Di-n-butylphthalate	149	21.155	21.155	(1.046)	4149574	50.0000	50
56 Fluoranthene	202	22.222	22.222	(1.099)	2629239	50.0000	50
58 Benzidine	184	22.434	22.434	(1.110)	2729449	80.0000	78
57 Pyrene	202	22.607	22.607	(0.919)	2564285	50.0000	48
$ 78 Terphenyl-d14 (SUR)	244	22.838	22.838	(0.929)	1724246	50.0000	50
59 Butylbenzylphthalate	149	23.623	23.623	(0.960)	1835639	50.0000	47
60 3,3'-Dichlorobenzidine	252	24.528	24.528	(0.997)	1453187	80.0000	78
61 Benzo(a)anthracene	228	24.569	24.569	(0.999)	1803103	50.0000	42
63 bis(2-Ethylhexyl)phthalate	149	24.548	24.548	(0.998)	2047276	50.0000	46
* 81 Chrysene-d12	240	24.596	24.596	(1.000)	1329363	40.0000	
62 Chrysene	228	24.643	24.643	(1.002)	1895975	50.0000	47
64 Di-n-octylphthalate	149	25.778	25.778	(0.929)	4291496	50.0000	47
65 Benzo(b)fluoranthene	252	26.747	26.747	(0.964)	2511669	50.0000	48
66 Benzo(k)fluoranthene	252	26.834	26.834	(0.967)	2471256	50.0000	50
67 Benzo(a)pyrene	252	27.612	27.612	(0.995)	2375676	50.0000	49
* 84 Perylene-d12	264	27.758	27.758	(1.000)	1496801	40.0000	
68 Indeno(1,2,3-cd)pyrene	276	31.443	31.443	(1.133)	2561495	50.0000	53
69 Dibenz(a,h)anthracene	278	31.583	31.583	(1.138)	2346900	50.0000	51
70 Benzo(g,h,i)perylene	276	32.650	32.650	(1.176)	2477065	50.0000	51(M)

QC Flag Legend

M - Compound response manually integrated.

304016

Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8212.d
Date : 16-OCT-1998 09:49
Client ID:
Sample Info: SSTD289

Instrument: BNAMS2.i

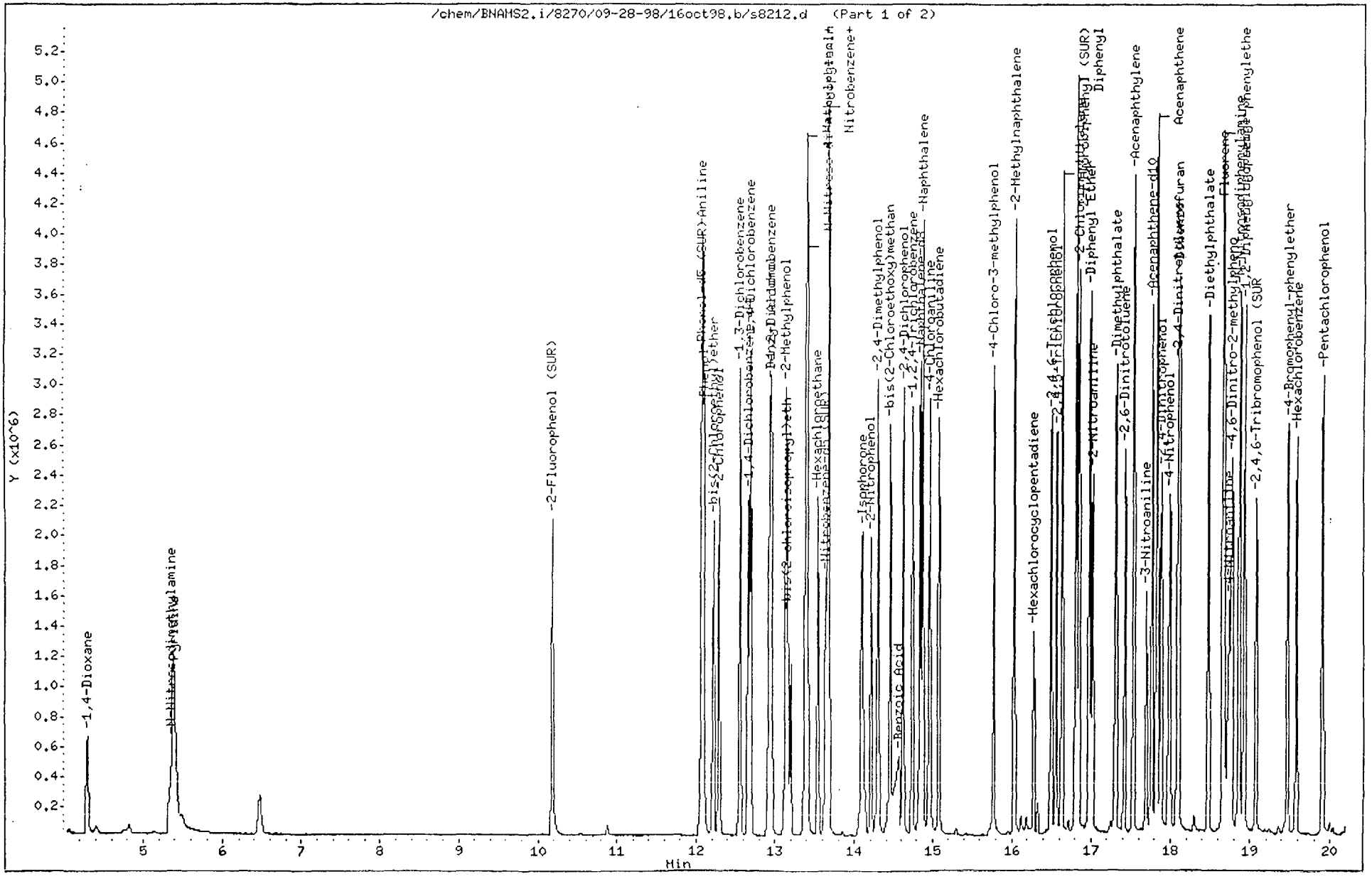
Operator: BNAMS 2

304017

480

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS2.i/8270/09-28-98/16oct98.b/s8212.d
Date : 16-OCT-1998 09:49
Client ID:
Sample Info: SSTD289

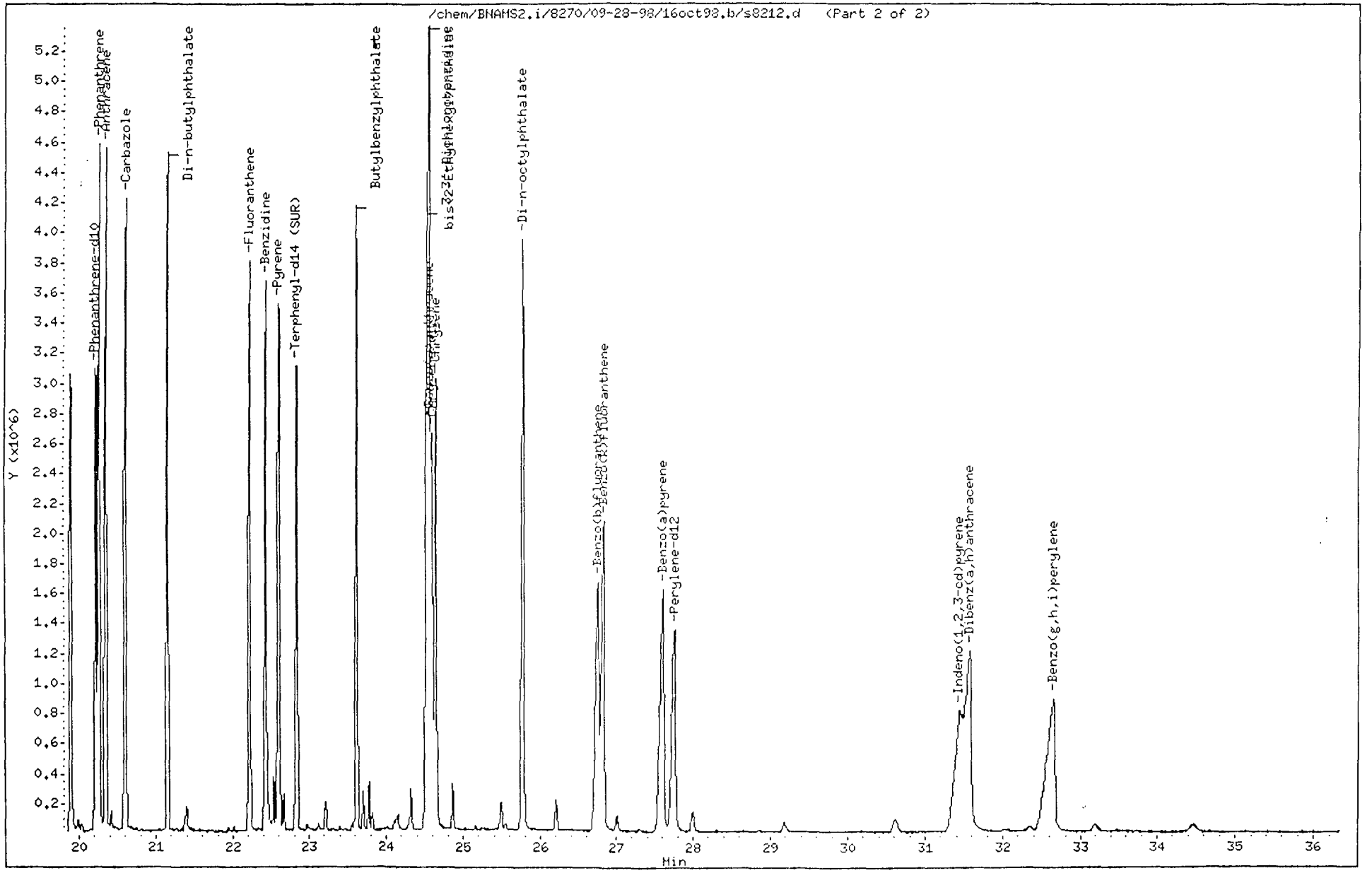
Instrument: BNAMS2.i

Operator: BNAMS 2

304018

Column phase: DB-5

Column diameter: 0.25



481

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 10/16/98 10/17/98

Calibration Time(s): 2018 0000

LAB FILE ID: RRF5: S8230 RRF20: S8228 RRF50: S8225
RRF80: S8227 RRF120: S8226

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Phenol	2.150	2.156	2.029	1.878	1.564
2-Chlorophenol	1.230	1.297	1.272	1.180	1.154
2-Methylphenol	1.333	1.373	1.308	1.241	1.197
4-Methylphenol	1.336	1.348	1.203	1.082	0.940
2-Nitrophenol	0.258	0.275	0.262	0.249	0.233
2,4-Dimethylphenol	0.348	0.380	0.349	0.338	0.321
2,4-Dichlorophenol	0.365	0.393	0.364	0.353	0.313
4-Chloro-3-methylphenol	0.365	0.393	0.357	0.340	0.310
2,4,6-Trichlorophenol	0.349	0.370	0.355	0.336	0.323
2,4,5-Trichlorophenol	0.361	0.376	0.362	0.340	0.317
2,4-Dinitrophenol	0.231	0.294	0.290	0.282	0.279
4-Nitrophenol	0.213	0.234	0.224	0.221	0.200
4,6-Dinitro-2-methylphenol	0.183	0.198	0.190	0.179	0.170
Pentachlorophenol	0.132	0.154	0.153	0.150	0.152
Benzoic Acid	0.092	0.228	0.225	0.218	0.195
N-Nitrosodimethylamine	0.916	0.948	1.079	0.943	0.976
bis(2-Chloroethyl)ether	1.870	1.719	1.601	1.545	1.484
1,3-Dichlorobenzene	1.740	1.647	1.540	1.461	1.367
1,4-Dichlorobenzene	1.634	1.578	1.510	1.417	1.325
1,2-Dichlorobenzene	1.526	1.580	1.494	1.340	1.183
bis(2-chloroisopropyl)ether	2.154	1.830	1.694	1.524	1.421
N-Nitroso-di-n-propylamine	0.973	0.918	0.799	0.717	0.673
Hexachloroethane	0.700	0.632	0.614	0.559	0.530
Nitrobenzene	0.675	0.587	0.515	0.475	0.448
Isophorone	0.928	0.925	0.872	0.848	0.756
bis(2-Chloroethoxy)methane	0.660	0.540	0.477	0.460	0.403
1,2,4-Trichlorobenzene	0.440	0.378	0.350	0.322	0.306
Naphthalene	1.162	1.058	0.962	0.920	0.859
4-Chloroaniline	0.530	0.505	0.463	0.455	0.420
Hexachlorobutadiene	0.171	0.158	0.142	0.130	0.117
2-Methylnaphthalene	0.849	0.795	0.708	0.672	0.616
Hexachlorocyclopentadiene	0.095	0.116	0.147	0.154	0.162
2-Chloronaphthalene	1.346	1.249	1.190	1.068	0.972
2-Nitroaniline	0.390	0.380	0.351	0.319	0.298
Dimethylphthalate	1.636	1.586	1.487	1.397	1.292
Acenaphthylene	2.087	2.040	1.911	1.757	1.623
2,6-Dinitrotoluene	0.357	0.399	0.391	0.364	0.341
3-Nitroaniline	0.410	0.285	0.278	0.261	0.234
Acenaphthene	1.323	1.253	1.153	1.068	0.985

304019

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 10/16/98 10/17/98

Calibration Time(s): 2018 0000

LAB FILE ID: RRF5: S8230 RRF20: S8228 RRF50: S8225
RRF80: S8227 RRF120: S8226

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Dibenzofuran	1.958	1.734	1.604	1.442	1.274
2,4-Dinitrotoluene		0.564	0.528	0.473	0.409
Diethylphthalate	1.900	1.604	1.447	1.314	1.142
4-Chlorophenyl-phenylether	0.568	0.517	0.454	0.367	0.315
Fluorene	1.564	1.380	1.174	1.064	0.926
4-Nitroaniline	0.418	0.422	0.411	0.368	0.338
N-Nitrosodiphenylamine	0.788	0.679	0.631	0.598	0.544
4-Bromophenyl-phenylether	0.246	0.223	0.205	0.193	0.180
Hexachlorobenzene	0.279	0.272	0.252	0.236	0.226
Phenanthrene	1.472	1.330	1.176	1.100	1.026
Anthracene	1.473	1.406	1.253	1.132	1.046
Carbazole	1.506	1.436	1.289	1.222	1.129
Di-n-butylphthalate	2.139	1.951	1.682	1.547	1.410
Fluoranthene	1.319	1.224	1.039	0.958	0.875
Pyrene	1.655	1.628	1.583	1.570	1.584
Benzidine	0.934	0.923	0.767	0.691	0.602
Butylbenzylphthalate	1.275	1.232	1.220	1.195	1.163
3,3'-Dichlorobenzidine	0.634	0.638	0.630	0.616	0.565
Benzo(a)anthracene	1.598	1.314	1.187	1.069	1.021
Chrysene	1.321	1.306	1.205	1.150	1.105
bis(2-Ethylhexyl)phthalate	1.460	1.578	1.381	1.240	1.119
Di-n-octylphthalate	2.578	2.544	2.361	2.328	2.148
Benzo(b)fluoranthene	1.482	1.388	1.394	1.468	1.469
Benzo(k)fluoranthene	1.462	1.450	1.382	1.365	1.119
Benzo(a)pyrene	1.292	1.368	1.353	1.360	1.278
Indeno(1,2,3-cd)pyrene	1.233	1.451	1.410	1.384	1.341
Dibenz(a,h)anthracene	1.259	1.342	1.291	1.244	1.137
Benzo(g,h,i)perylene	1.355	1.436	1.410	1.336	1.214
Pyridine	1.252	1.332	1.573	1.405	1.552
Aniline	2.400	2.326	2.180	1.979	1.898
Benzyl Alcohol	1.040	1.077	1.022	0.958	0.860
1,2-Diphenylhydrazine	1.228	1.021	0.931	0.854	0.801
Diphenyl	1.740	1.620	1.482	1.341	1.126
Diphenyl Ether	0.966	0.859	0.811	0.757	0.684
Acetophenone	2.110	1.962	1.781	1.674	1.598
1,4-Dioxane	0.568	0.626	0.663	0.602	0.604
N,N-Dimethylaniline	2.043	1.948	1.738	1.613	1.514
2-Fluorophenol (SUR)	1.309	1.389	1.394	1.338	1.288

304020

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2

Calibration Date(s): 10/16/98 10/17/98

Calibration Time(s): 2018 0000

LAB FILE ID: RRF5: S8230 RRF20: S8228 RRF50: S8225
RRF80: S8227 RRF120: S8226

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Phenol-d5 (SUR)	1.934	1.958	1.865	1.686	1.602
2,4,6-Tribromophenol (SUR)	0.246	0.261	0.251	0.244	0.226
Nitrobenzene-d5 (SUR)	0.458	0.449	0.428	0.402	0.383
2-Fluorobiphenyl (SUR)	1.455	1.354	1.237	1.144	1.047
Terphenyl-d14 (SUR)	1.165	1.172	1.129	1.059	1.012

304021

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 10/16/98 10/17/98

Calibration Time(s): 2018 0000

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol	AVRG	1.95553614	12.6*
2-Chlorophenol	AVRG	1.22636435	4.9*
2-Methylphenol	AVRG	1.29041980	5.5*
4-Methylphenol	AVRG	1.18190918	14.7*
2-Nitrophenol	AVRG	0.25554336	6.2*
2,4-Dimethylphenol	AVRG	0.34719871	6.2*
2,4-Dichlorophenol	AVRG	0.35763542	8.0*
4-Chloro-3-methylphenol	AVRG	0.35305270	8.7*
2,4,6-Trichlorophenol	AVRG	0.34651866	5.2*
2,4,5-Trichlorophenol	AVRG	0.35144476	6.5*
2,4-Dinitrophenol	AVRG	0.27520437	9.2**
4-Nitrophenol	AVRG	0.21851041	5.9**
4,6-Dinitro-2-methylphenol	AVRG	0.18407978	5.9*
Pentachlorophenol	AVRG	0.14823085	6.0*
Benzoic Acid	AVRG	0.19172359	29.8*
N-Nitrosodimethylamine	AVRG	0.97223964	6.5*
bis(2-Chloroethyl)ether	AVRG	1.64372202	9.3*
1,3-Dichlorobenzene	AVRG	1.55119141	9.5*
1,4-Dichlorobenzene	AVRG	1.49295261	8.3*
1,2-Dichlorobenzene	AVRG	1.42435371	11.4*
bis(2-chloroisopropyl)ether	AVRG	1.72455221	16.6*
N-Nitroso-di-n-propylamine	AVRG	0.81609710	15.7**
Hexachloroethane	AVRG	0.60692744	10.9*
Nitrobenzene	AVRG	0.54021951	17.0*
Isophorone	AVRG	0.86581410	8.1*
bis(2-Chloroethoxy)methane	AVRG	0.50792424	19.3*
1,2,4-Trichlorobenzene	AVRG	0.35916278	14.7*
Naphthalene	AVRG	0.99227569	12.0*
4-Chloroaniline	AVRG	0.47467218	9.1*
Hexachlorobutadiene	AVRG	0.14370829	14.8*
2-Methylnaphthalene	AVRG	0.72808640	12.9*
Hexachlorocyclopentadiene	AVRG	0.13485677	20.8**
2-Chloronaphthalene	AVRG	1.16512993	12.7*
2-Nitroaniline	AVRG	0.34768062	11.3*
Dimethylphthalate	AVRG	1.47971836	9.4*
Acenaphthylene	AVRG	1.88369877	10.3*
2,6-Dinitrotoluene	AVRG	0.37056029	6.5*
3-Nitroaniline	AVRG	0.29365267	23.1*
Acenaphthene	AVRG	1.15635225	11.8*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304022

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date(s): 10/16/98 10/17/98

Calibration Time(s): 2018 0000

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Dibenzofuran	AVRG	1.60222093	16.4*
2,4-Dinitrotoluene	AVRG	0.49341000	13.6*
Diethylphthalate	AVRG	1.48161951	19.5*
4-Chlorophenyl-phenylether	AVRG	0.44434185	23.4*
Fluorene	AVRG	1.22160623	20.7*
4-Nitroaniline	AVRG	0.39135419	9.5*
N-Nitrosodiphenylamine	AVRG	0.64819269	14.2*
4-Bromophenyl-phenylether	AVRG	0.20933190	12.3*
Hexachlorobenzene	AVRG	0.25327847	8.9*
Phenanthrene	AVRG	1.22063357	14.8*
Anthracene	AVRG	1.26194366	14.2*
Carbazole	AVRG	1.31642921	11.7*
Di-n-butylphthalate	AVRG	1.74584043	17.0*
Fluoranthene	AVRG	1.08295440	17.0*
Pyrene	AVRG	1.60392564	2.2*
Benzidine	AVRG	0.78361147	18.5*
Butylbenzylphthalate	AVRG	1.21716421	3.4*
3,3'-Dichlorobenzidine	AVRG	0.61674325	4.8*
Benzo(a)anthracene	AVRG	1.23783770	18.7*
Chrysene	AVRG	1.21739739	7.8*
bis(2-Ethylhexyl)phthalate	AVRG	1.35577814	13.3*
Di-n-octylphthalate	AVRG	2.39191569	7.3*
Benzo(b)fluoranthene	AVRG	1.44064306	3.1*
Benzo(k)fluoranthene	AVRG	1.35542201	10.2*
Benzo(a)pyrene	AVRG	1.33023188	3.2*
Indeno(1,2,3-cd)pyrene	AVRG	1.36367440	6.1*
Dibenz(a,h)anthracene	AVRG	1.25457169	6.0*
Benzo(g,h,i)perylene	AVRG	1.35027849	6.4*
Pyridine	AVRG	1.42255987	9.8*
Aniline	AVRG	2.15676763	10.0*
Benzyl Alcohol	AVRG	0.99150488	8.6*
1,2-Diphenylhydrazine	AVRG	0.96719670	17.4*
Diphenyl	AVRG	1.46172777	16.4*
Diphenyl Ether	AVRG	0.81527925	13.0*
Acetophenone	AVRG	1.82468980	11.5**
1,4-Dioxane	AVRG	0.61277612	5.7**
N,N-Dimethylaniline	AVRG	1.77121105	12.5**
2-Fluorophenol (SUR)	AVRG	1.34362701	3.5*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304023

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS2

Calibration Date(s): 10/16/98 10/17/98

Calibration Time(s): 2018 0000

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol-d5 (SUR)	AVRG	1.80911729	8.7*
2,4,6-Tribromophenol (SUR)	AVRG	0.24555870	5.2*
Nitrobenzene-d5 (SUR)	AVRG	0.42409497	7.5*
2-Fluorobiphenyl (SUR)	AVRG	1.24754060	13.0*
Terphenyl-d14 (SUR)	AVRG	1.10745513	6.3*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304024

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8226.d
Report Date: 16-Oct-98 23:23:15

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8226.d
Lab Smp Id: SSTD120
Inj Date : 16-OCT-98 21:04:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SSTD120
Misc Info : 120 PPM STD
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/8270C-REV..m
Meth Date : 16-Oct-98 23:12:29 Quant Type: ISTD
Cal Date : 16-OCT-98 21:04:00 Cal File: s8226.d
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.280	4.247	(0.338)	939803	120	120
19 N-Nitrosodimethylamine	74	5.376	5.296	(0.425)	1517760	120	120
71 Pyridine	79	5.357	5.355	(0.424)	2414803	120	130(A)
$ 16 2-Fluorophenol (SUR)	112	10.163	10.152	(0.804)	2004433	120	110
$ 17 Phenol-d5 (SUR)	99	12.072	12.032	(0.955)	2493149	120	110
1 Phenol	94	12.098	12.059	(0.957)	2433914	120	98(H)
73 Aniline	93	12.072	12.052	(0.955)	2953478	120	110
20 bis(2-Chloroethyl)ether	93	12.217	12.190	(0.966)	2308605	120	110
2 2-Chlorophenol	128	12.283	12.269	(0.971)	1795214	120	110
21 1,3-Dichlorobenzene	146	12.546	12.532	(0.992)	2127067	120	110
* 79 1,4-Dichlorobenzene-d4	152	12.645	12.643	(1.000)	518578	40	
22 1,4-Dichlorobenzene	146	12.678	12.670	(1.003)	2061999	120	110
74 Benzyl Alcohol	108	12.935	12.900	(1.023)	1338385	120	100
23 1,2-Dichlorobenzene	146	12.941	12.933	(1.023)	1840081	120	100
3 2-Methylphenol	108	13.146	13.110	(1.040)	1861660	120	110

304025

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8226.d
Report Date: 16-Oct-98 23:23:15

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
24 bis(2-chloroisopropyl)ether	45	13.153	13.136	(1.040)	2210654	120	120(AM)
4 4-Methylphenol	108	13.410	13.366	(1.060)	1462174	120	130(AH)
25 N-Nitroso-di-n-propylamine	70	13.416	13.360	(1.061)	1047303	120	100(MH)
104 Acetophenone	105	13.383	13.353	(1.058)	2485982	120	110
26 Hexachloroethane	117	13.522	13.518	(1.069)	824973	120	110
$ 76 Nitrobenzene-d5 (SUR)	82	13.641	13.603	(0.919)	1948620	120	110
27 Nitrobenzene	77	13.687	13.643	(0.923)	2281297	120	110
107 N,N-Dimethylaniline	120	13.674	13.643	(1.081)	2355757	120	110
28 Isophorone	82	14.102	14.049	(0.951)	3850773	120	110(H)
5 2-Nitrophenol	139	14.201	14.181	(0.957)	1186101	120	110
6 2,4-Dimethylphenol	122	14.294	14.260	(0.963)	1635094	120	110
15 Benzoic Acid	122	14.637	14.451	(0.987)	994502	120	220(AM)
29 bis(2-Chloroethoxy)methane	93	14.439	14.418	(0.973)	2050465	120	100
7 2,4-Dichlorophenol	162	14.624	14.595	(0.986)	1595048	120	100
30 1,2,4-Trichlorobenzene	180	14.743	14.727	(0.994)	1555329	120	110
* 80 Naphthalene-d8	136	14.836	14.826	(1.000)	1696975	40	
31 Naphthalene	128	14.883	14.859	(1.003)	4374998	120	110
32 4-Chloroaniline	127	14.975	14.951	(1.009)	2140566	120	110
33 Hexachlorobutadiene	225	15.068	15.063	(1.016)	597473	120	100
8 4-Chloro-3-methylphenol	107	15.764	15.750	(1.063)	1578015	120	110
34 2-Methylnaphthalene	142	16.027	16.012	(1.080)	3138919	120	110
35 Hexachlorocyclopentadiene	237	16.272	16.269	(0.917)	501998	120	130(A)
9 2,4,6-Trichlorophenol	196	16.497	16.479	(0.929)	1001067	120	110
10 2,4,5-Trichlorophenol	196	16.563	16.545	(0.933)	984228	120	110
$ 77 2-Fluorobiphenyl (SUR)	172	16.630	16.618	(0.937)	3248203	120	100
102 Diphenyl	154	16.809	16.782	(0.947)	3491549	120	97
36 2-Chloronaphthalene	162	16.842	16.822	(0.949)	3014770	120	100
103 Diphenyl Ether	170	16.968	16.954	(0.956)	2119858	120	100
37 2-Nitroaniline	65	17.014	16.987	(0.959)	922981	120	100
38 Dimethylphthalate	163	17.305	17.282	(0.975)	4008755	120	110
40 2,6-Dinitrotoluene	165	17.425	17.387	(0.982)	1058058	120	150(A)
39 Acenaphthylene	152	17.531	17.506	(0.988)	5033669	120	110
41 3-Nitroaniline	138	17.696	17.663	(0.997)	724955	120	110
* 82 Acenaphthene-d10	164	17.749	17.743	(1.000)	1033815	40	
42 Acenaphthene	153	17.816	17.795	(1.004)	3053758	120	110
11 2,4-Dinitrophenol	184	17.875	17.848	(1.007)	866148	120	120
12 4-Nitrophenol	65	17.988	17.954	(1.013)	619684	120	110
44 2,4-Dinitrotoluene	165	18.088	18.053	(1.019)	1269359	120	100
43 Dibenzofuran	168	18.108	18.079	(1.020)	3950815	120	100
45 Diethylphthalate	149	18.478	18.448	(1.041)	3543177	120	100
46 4-Chlorophenyl-phenylether	204	18.650	18.638	(1.051)	976279	120	91
47 Fluorene	166	18.670	18.645	(1.052)	2872531	120	98
48 4-Nitroaniline	138	18.750	18.685	(1.056)	1046863	120	100
13 4,6-Dinitro-2-methylphenol	198	18.777	18.738	(0.929)	733234	120	110
49 N-Nitrosodiphenylamine	169	18.863	18.830	(0.934)	2355391	120	110
75 1,2-Diphenylhydrazine	77	18.923	18.903	(0.937)	3466505	120	110
$ 18 2,4,6-Tribromophenol (SUR)	330	19.062	19.041	(1.074)	701177	120	150(A)

304026

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8226.d
Report Date: 16-Oct-98 23:23:15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	50 4-Bromophenyl-phenylether	248	19.466	19.442	(0.964)	777637	120	110
	51 Hexachlorobenzene	284	19.572	19.554	(0.969)	977475	120	110
	14 Pentachlorophenol	266	19.890	19.875	(0.985)	655750	120	120
*	83 Phenanthrene-d10	188	20.201	20.197	(1.000)	1441883	40	
	52 Phenanthrene	178	20.254	20.237	(1.003)	4438918	120	110
	53 Anthracene	178	20.347	20.323	(1.007)	4522550	120	100
	54 Carbazole	167	20.599	20.579	(1.020)	4882474	120	110
	55 Di-n-butylphthalate	149	21.146	21.130	(1.047)	6099054	120	100
	56 Fluoranthene	202	22.212	22.192	(1.100)	3784476	120	100
	58 Benzidine	184	22.424	22.409	(1.110)	2606621	120	97
	57 Pyrene	202	22.597	22.574	(0.919)	3963746	120	120
$	78 Terphenyl-d14 (SUR)	244	22.822	22.804	(0.928)	2532930	120	110
	59 Butylbenzylphthalate	149	23.620	23.598	(0.961)	2911762	120	120
	60 3,3'-Dichlorobenzidine	252	24.517	24.490	(0.997)	1414727	120	110
	61 Benzo(a)anthracene	228	24.564	24.537	(0.999)	2555888	120	110
	63 bis(2-Ethylhexyl)phthalate	149	24.544	24.524	(0.998)	2800674	120	100
*	81 Chrysene-d12	240	24.584	24.564	(1.000)	834250	40	
	62 Chrysene	228	24.638	24.604	(1.002)	2766454	120	110
	64 Di-n-octylphthalate	149	25.766	25.733	(0.930)	6573425	120	110
	65 Benzo(b)fluoranthene	252	26.741	26.692	(0.965)	4495586	120	120(A)
	66 Benzo(k)fluoranthene	252	26.828	26.758	(0.968)	3422666	120	100
	67 Benzo(a)pyrene	252	27.606	27.533	(0.996)	3910361	120	110
*	84 Perylene-d12	264	27.719	27.705	(1.000)	1019893	40	
	68 Indeno(1,2,3-cd)pyrene	276	31.451	31.339	(1.135)	4102444	120	120(M)
	69 Dibenz(a,h)anthracene	278	31.578	31.432	(1.139)	3478728	120	110
	70 Benzo(g,h,i)perylene	276	32.638	32.482	(1.177)	3713493	120	110(M)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304027

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8226.d
Date : 16-OCT-98 21:04:00
Client ID:
Sample Info: SSTD120

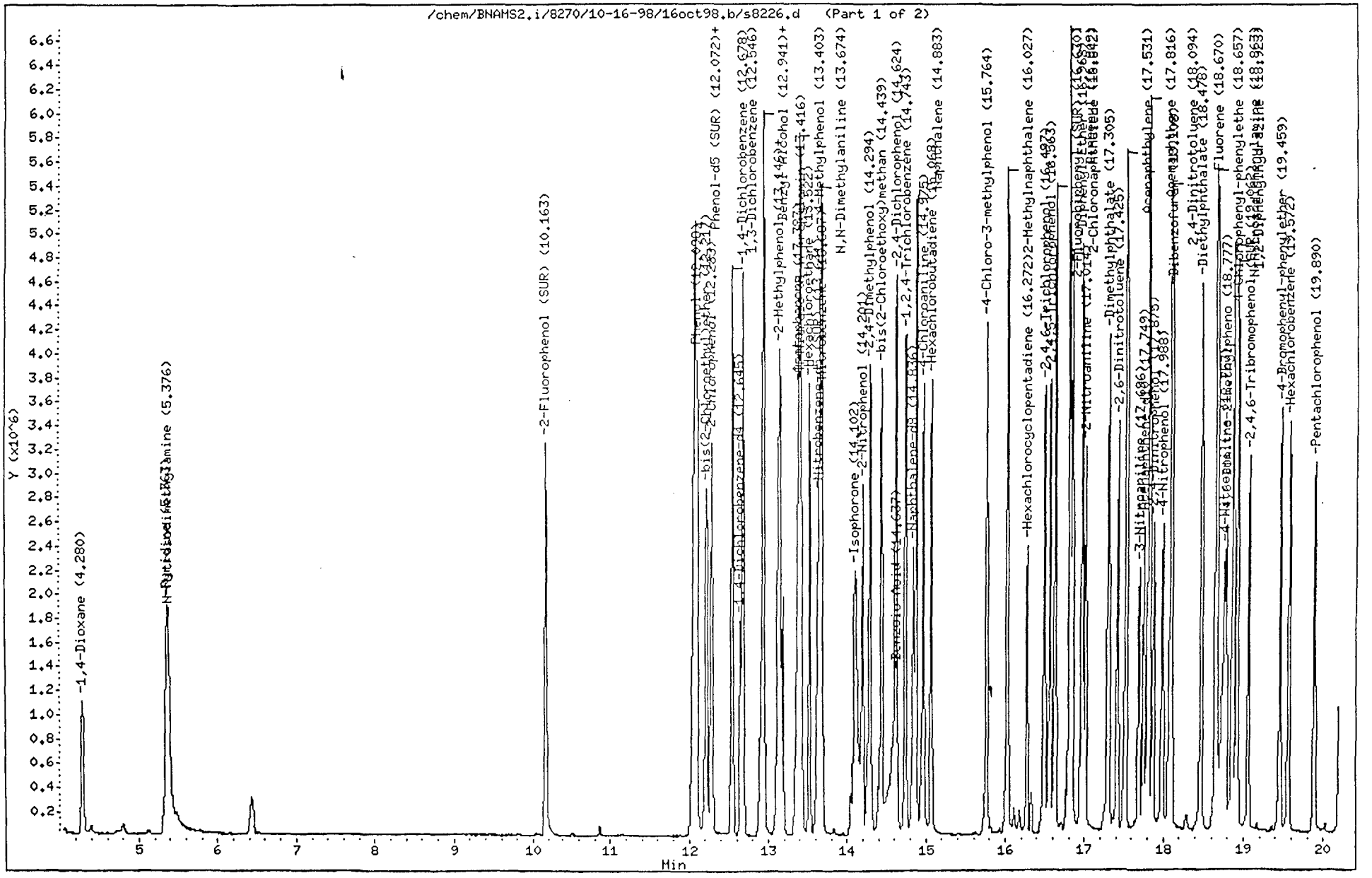
Instrument: BNAMS2.i

Operator: BNAMS 2

304028

Column phase: DB-5

Column diameter: 0.25



491

Data File: /chem/BNAHS2.i/8270/10-16-98/16oct98.b/s8226.d
Date : 16-OCT-98 21:04:00
Client ID:
Sample Info: SSTD120

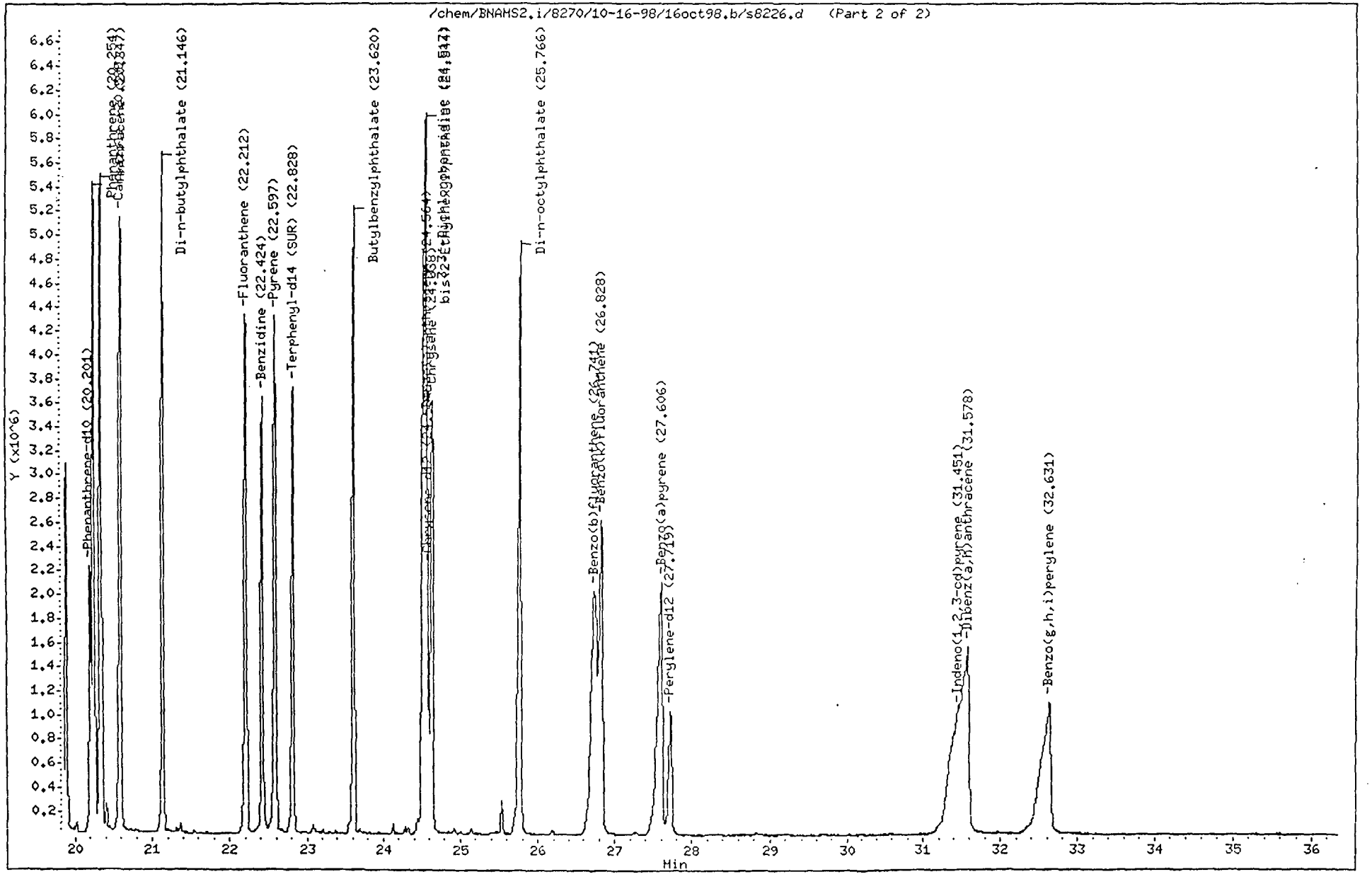
Instrument: BNAHS2.i

Operator: BNAHS 2

304029

Column phase: DB-5

Column diameter: 0.25



492

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8227.d
Report Date: 16-Oct-98 23:23:20

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8227.d
Lab Smp Id: SSTD080
Inj Date : 16-OCT-98 21:48:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SSTD080
Misc Info : 80 PPM STD
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/8270C-REV..m
Meth Date : 16-Oct-98 23:12:29 Quant Type: ISTD
Cal Date : 16-OCT-98 21:48:00 Cal File: s8227.d
Als bottle: 3 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.247	4.247	(0.336)	582334	80	77
19 N-Nitrosodimethylamine	74	5.337	5.296	(0.422)	911892	80	76
71 Pyridine	79	5.343	5.355	(0.422)	1358871	80	77
$ 16 2-Fluorophenol (SUR)	112	10.154	10.152	(0.803)	1293723	80	79
$ 17 Phenol-d5 (SUR)	99	12.054	12.032	(0.953)	1631011	80	76
1 Phenol	94	12.080	12.059	(0.955)	1816957	80	79
73 Aniline	93	12.061	12.052	(0.954)	1913821	80	76
20 bis(2-Chloroethyl)ether	93	12.206	12.190	(0.965)	1494246	80	78
2 2-Chlorophenol	128	12.278	12.269	(0.971)	1140915	80	77
21 1,3-Dichlorobenzene	146	12.541	12.532	(0.992)	1412987	80	78
* 79 1,4-Dichlorobenzene-d4	152	12.646	12.643	(1.000)	483601	40	
22 1,4-Dichlorobenzene	146	12.679	12.670	(1.003)	1370683	80	78
74 Benzyl Alcohol	108	12.916	12.900	(1.021)	926966	80	78
23 1,2-Dichlorobenzene	146	12.936	12.933	(1.023)	1295597	80	77
3 2-Methylphenol	108	13.126	13.110	(1.038)	1200741	80	78

304030

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8227.d
Report Date: 16-Oct-98 23:23:20

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	24 bis(2-chloroisopropyl)ether	45	13.146	13.136	(1.040)	1474060	80	82(M)
	4 4-Methylphenol	108	13.390	13.366	(1.059)	1046851	80	76(H)
	25 N-Nitroso-di-n-propylamine	70	13.397	13.360	(1.059)	693581	80	74
	104 Acetophenone	105	13.370	13.353	(1.057)	1618685	80	76
	26 Hexachloroethane	117	13.522	13.518	(1.069)	540557	80	76
$	76 Nitrobenzene-d5 (SUR)	82	13.627	13.603	(0.919)	1281648	80	77
	27 Nitrobenzene	77	13.667	13.643	(0.921)	1515029	80	75
	107 N,N-Dimethylaniline	120	13.660	13.643	(1.080)	1560455	80	76
	28 Isophorone	82	14.074	14.049	(0.949)	2700819	80	80
	5 2-Nitrophenol	139	14.193	14.181	(0.957)	793379	80	78
	6 2,4-Dimethylphenol	122	14.286	14.260	(0.963)	1076500	80	78
	15 Benzoic Acid	122	14.576	14.451	(0.983)	693962	80	110(M)
	29 bis(2-Chloroethoxy)methane	93	14.431	14.418	(0.973)	1466849	80	78
	7 2,4-Dichlorophenol	162	14.616	14.595	(0.985)	1125473	80	79
	30 1,2,4-Trichlorobenzene	180	14.734	14.727	(0.993)	1027366	80	76
*	80 Naphthalene-d8	136	14.834	14.826	(1.000)	1593272	40	
	31 Naphthalene	128	14.873	14.859	(1.003)	2931161	80	77
	32 4-Chloroaniline	127	14.966	14.951	(1.009)	1450477	80	79
	33 Hexachlorobutadiene	225	15.065	15.063	(1.016)	415108	80	76
	8 4-Chloro-3-methylphenol	107	15.762	15.750	(1.063)	1084218	80	78
	34 2-Methylnaphthalene	142	16.025	16.012	(1.080)	2141919	80	77
	35 Hexachlorocyclopentadiene	237	16.269	16.269	(0.917)	302807	80	85
	9 2,4,6-Trichlorophenol	196	16.487	16.479	(0.929)	660685	80	78
	10 2,4,5-Trichlorophenol	196	16.553	16.545	(0.933)	669478	80	78
$	77 2-Fluorobiphenyl (SUR)	172	16.626	16.618	(0.937)	2251402	80	76
	102 Diphenyl	154	16.798	16.782	(0.947)	2639913	80	77
	36 2-Chloronaphthalene	162	16.838	16.822	(0.949)	2102220	80	76
	103 Diphenyl Ether	170	16.963	16.954	(0.956)	1489884	80	78
	37 2-Nitroaniline	65	17.003	16.987	(0.958)	628572	80	76
	38 Dimethylphthalate	163	17.294	17.282	(0.975)	2750298	80	78
	40 2,6-Dinitrotoluene	165	17.413	17.387	(0.981)	716853	80	110
	39 Acenaphthylene	152	17.518	17.506	(0.987)	3459470	80	77
	41 3-Nitroaniline	138	17.683	17.663	(0.997)	514746	80	79
*	82 Acenaphthene-d10	164	17.743	17.743	(1.000)	984274	40	
	42 Acenaphthene	153	17.809	17.795	(1.004)	2102355	80	77
	11 2,4-Dinitrophenol	184	17.869	17.848	(1.007)	694474	100	98
	12 4-Nitrophenol	65	17.975	17.954	(1.013)	544948	100	100
	44 2,4-Dinitrotoluene	165	18.074	18.053	(1.019)	931240	80	77
	43 Dibenzofuran	168	18.094	18.079	(1.020)	2838116	80	76
	45 Diethylphthalate	149	18.464	18.448	(1.041)	2587095	80	76
	46 4-Chlorophenyl-phenylether	204	18.649	18.638	(1.051)	722943	80	71
	47 Fluorene	166	18.662	18.645	(1.052)	2093636	80	75
	48 4-Nitroaniline	138	18.728	18.685	(1.056)	723843	80	76
	13 4,6-Dinitro-2-methylphenol	198	18.762	18.738	(0.929)	639678	100	97
	49 N-Nitrosodiphenylamine	169	18.854	18.830	(0.933)	1708245	80	78
	75 1,2-Diphenylhydrazine	77	18.914	18.903	(0.936)	2438484	80	76
$	18 2,4,6-Tribromophenol (SUR)	330	19.060	19.041	(1.074)	479519	80	110

304031

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8227.d
Report Date: 16-Oct-98 23:23:20

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
50 4-Bromophenyl-phenylether	248	19.456	19.442	(0.963)	550605	80	77
51 Hexachlorobenzene	284	19.568	19.554	(0.969)	675580	80	77
14 Pentachlorophenol	266	19.885	19.875	(0.984)	535551	100	99
* 83 Phenanthrene-d10	188	20.202	20.197	(1.000)	1427964	40	
52 Phenanthrene	178	20.248	20.237	(1.002)	3140165	80	76
53 Anthracene	178	20.334	20.323	(1.007)	3232696	80	75
54 Carbazole	167	20.592	20.579	(1.019)	3491131	80	77
55 Di-n-butylphthalate	149	21.138	21.130	(1.046)	4417329	80	75
56 Fluoranthene	202	22.209	22.192	(1.099)	2737289	80	75
58 Benzidine	184	22.420	22.409	(1.110)	2467223	100	93
57 Pyrene	202	22.592	22.574	(0.919)	2848763	80	79
$ 78 Terphenyl-d14 (SUR)	244	22.823	22.804	(0.929)	1921309	80	78
59 Butylbenzylphthalate	149	23.613	23.598	(0.961)	2167789	80	79
60 3,3'-Dichlorobenzidine	252	24.508	24.490	(0.997)	1397985	100	100
61 Benzo(a)anthracene	228	24.555	24.537	(0.999)	1940082	80	74
63 bis(2-Ethylhexyl)phthalate	149	24.535	24.524	(0.998)	2249741	80	75
* 81 Chrysene-d12	240	24.575	24.564	(1.000)	907150	40	
62 Chrysene	228	24.629	24.604	(1.002)	2086027	80	77
64 Di-n-octylphthalate	149	25.761	25.733	(0.929)	4779033	80	79
65 Benzo(b)fluoranthene	252	26.721	26.692	(0.964)	3014902	80	82
66 Benzo(k)fluoranthene	252	26.808	26.758	(0.967)	2803150	80	82
67 Benzo(a)pyrene	252	27.584	27.533	(0.995)	2793097	80	81
* 84 Perylene-d12	264	27.717	27.705	(1.000)	1026579	40	
68 Indeno(1,2,3-cd)pyrene	276	31.400	31.339	(1.133)	2840603	80	79
69 Dibenz(a,h)anthracene	278	31.540	31.432	(1.138)	2553321	80	79
70 Benzo(g,h,i)perylene	276	32.599	32.482	(1.176)	2742985	80	79

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304032

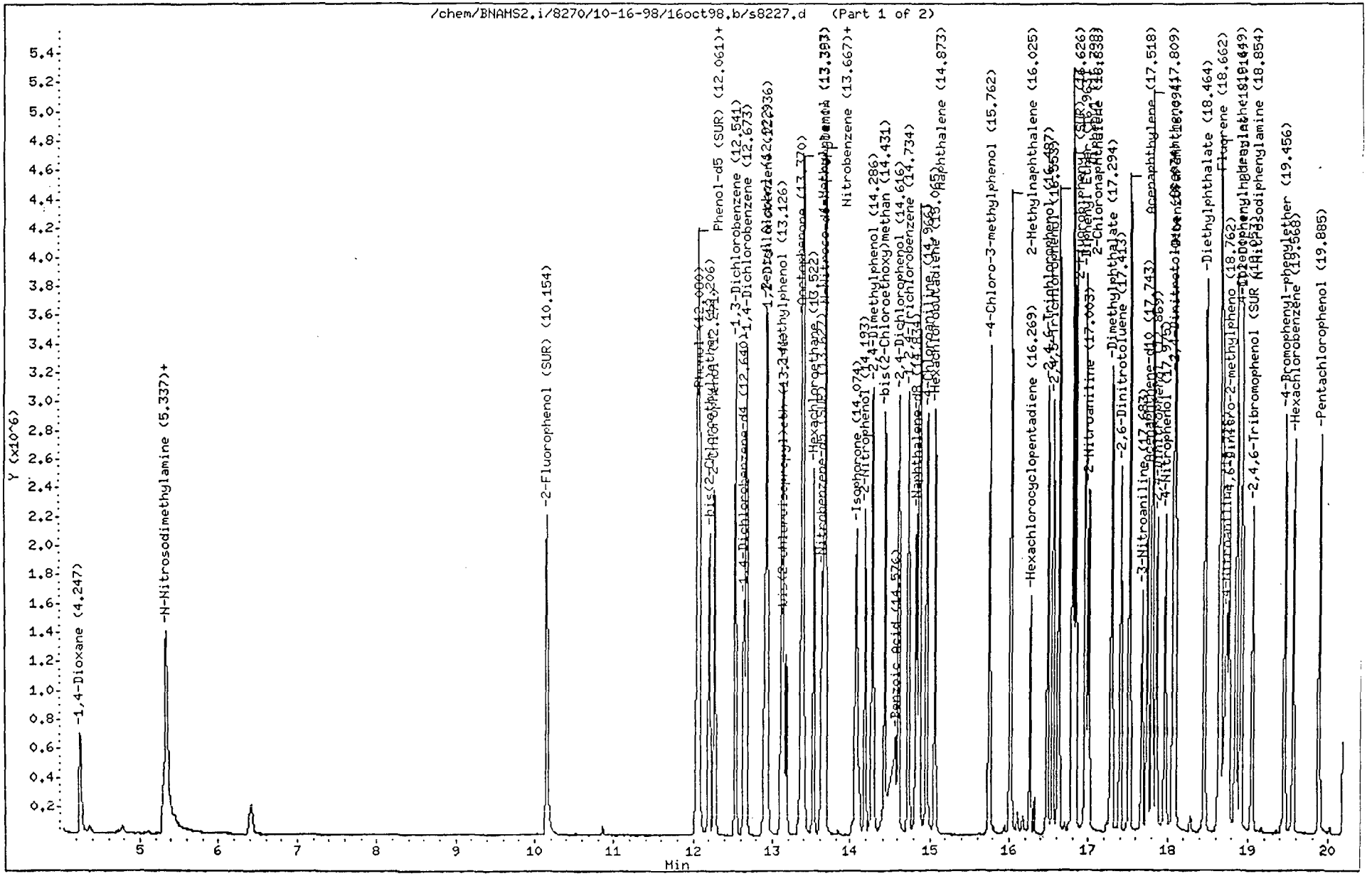
Data File: /chem/BNAHS2.i/8270/10-16-98/16oct98.b/s8227.d
Date : 16-OCT-98 21:48:00
Client ID:
Sample Info: SSTD080

Instrument: BNAHS2.i

Operator: BNAHS 2
Column diameter: 0.25

Column phase: DB-5

304033



496

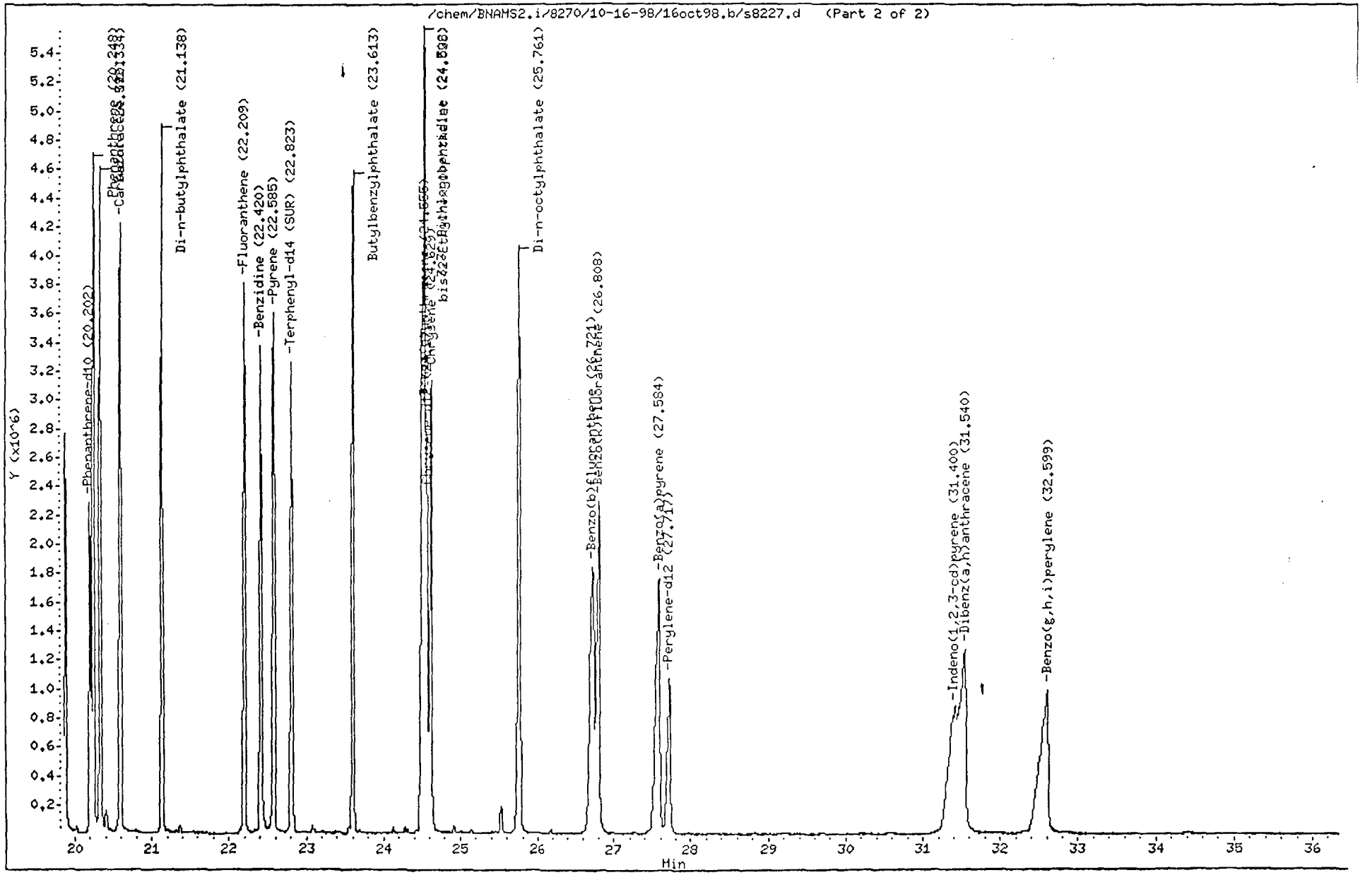
Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8227.d
Date : 16-OCT-98 21:48:00
Client ID:
Sample Info: SSTD080

Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

Column phase: DB-5

304034



Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8225.d
Report Date: 16-Oct-98 23:23:07

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8225.d
Lab Smp Id: SSTD050
Inj Date : 16-OCT-98 20:18:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SSTD050
Misc Info : 50 PPM STD
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/8270C-REV..m
Meth Date : 16-Oct-98 23:12:29 Quant Type: ISTD
Cal Date : 16-OCT-98 20:18:00 Cal File: s8225.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.241	4.247	(0.336)	411244	50	50
19 N-Nitrosodimethylamine	74	5.310	5.296	(0.420)	668673	50	50
71 Pyridine	79	5.337	5.355	(0.422)	974757	50	50
$ 16 2-Fluorophenol (SUR)	112	10.147	10.152	(0.803)	864037	50	50
$ 17 Phenol-d5 (SUR)	99	12.041	12.032	(0.953)	1155801	50	50
1 Phenol	94	12.067	12.059	(0.955)	1257512	50	50
73 Aniline	93	12.054	12.052	(0.954)	1351559	50	50
20 bis(2-Chloroethyl)ether	93	12.199	12.190	(0.965)	992141	50	50
2 2-Chlorophenol	128	12.272	12.269	(0.971)	788404	50	50
21 1,3-Dichlorobenzene	146	12.534	12.532	(0.992)	954755	50	50
* 79 1,4-Dichlorobenzene-d4	152	12.639	12.643	(1.000)	495870	40	
22 1,4-Dichlorobenzene	146	12.673	12.670	(1.003)	936184	50	50
74 Benzyl Alcohol	108	12.909	12.900	(1.021)	633168	50	50
23 1,2-Dichlorobenzene	146	12.929	12.933	(1.023)	925854	50	50
3 2-Methylphenol	108	13.120	13.110	(1.038)	810760	50	50

304035

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8225.d
Report Date: 16-Oct-98 23:23:07

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
24 bis(2-chloroisopropyl)ether	45	13.139	13.136	(1.040)	1049909	50	50(M)
4 4-Methylphenol	108	13.376	13.366	(1.058)	745485	50	50
25 N-Nitroso-di-n-propylamine	70	13.376	13.360	(1.058)	495534	50	50
104 Acetophenone	105	13.363	13.353	(1.057)	1103728	50	50
26 Hexachloroethane	117	13.515	13.518	(1.069)	380662	50	50
$ 76 Nitrobenzene-d5 (SUR)	82	13.613	13.603	(0.918)	885231	50	50
27 Nitrobenzene	77	13.653	13.643	(0.921)	1065970	50	50
107 N,N-Dimethylaniline	120	13.653	13.643	(1.080)	1077069	50	50
28 Isophorone	82	14.060	14.049	(0.948)	1805825	50	50
5 2-Nitrophenol	139	14.185	14.181	(0.956)	543463	50	50
6 2,4-Dimethylphenol	122	14.271	14.260	(0.962)	721925	50	50
15 Benzoic Acid	122	14.521	14.451	(0.979)	465872	50	50
29 bis(2-Chloroethoxy)methane	93	14.429	14.418	(0.973)	986511	50	50
7 2,4-Dichlorophenol	162	14.607	14.595	(0.985)	753032	50	50
30 1,2,4-Trichlorobenzene	180	14.732	14.727	(0.993)	724806	50	50
* 80 Naphthalene-d8	136	14.831	14.826	(1.000)	1655695	40	
31 Naphthalene	128	14.871	14.859	(1.003)	1991034	50	50
32 4-Chloroaniline	127	14.957	14.951	(1.008)	957496	50	50
33 Hexachlorobutadiene	225	15.062	15.063	(1.016)	295024	50	50
8 4-Chloro-3-methylphenol	107	15.758	15.750	(1.062)	738171	50	50
34 2-Methylnaphthalene	142	16.021	16.012	(1.080)	1464298	50	50
35 Hexachlorocyclopentadiene	237	16.272	16.269	(0.917)	185229	50	50
9 2,4,6-Trichlorophenol	196	16.482	16.479	(0.929)	447183	50	50
10 2,4,5-Trichlorophenol	196	16.548	16.545	(0.933)	456924	50	50
$ 77 2-Fluorobiphenyl (SUR)	172	16.621	16.618	(0.937)	1559281	50	50
102 Diphenyl	154	16.793	16.782	(0.946)	1867766	50	50
36 2-Chloronaphthalene	162	16.833	16.822	(0.949)	1500508	50	50
103 Diphenyl Ether	170	16.958	16.954	(0.956)	1022326	50	50
37 2-Nitroaniline	65	16.998	16.987	(0.958)	442176	50	50
38 Dimethylphthalate	163	17.287	17.282	(0.974)	1874237	50	50
40 2,6-Dinitrotoluene	165	17.400	17.387	(0.981)	493212	50	50
39 Acenaphthylene	152	17.518	17.506	(0.987)	2408043	50	50
41 3-Nitroaniline	138	17.676	17.663	(0.996)	350467	50	50
* 82 Acenaphthene-d10	164	17.742	17.743	(1.000)	1008259	40	
42 Acenaphthene	153	17.802	17.795	(1.003)	1452763	50	50
11 2,4-Dinitrophenol	184	17.861	17.848	(1.007)	584922	80	80
12 4-Nitrophenol	65	17.967	17.954	(1.013)	451641	80	80
44 2,4-Dinitrotoluene	165	18.066	18.053	(1.018)	664897	50	50
43 Dibenzofuran	168	18.086	18.079	(1.019)	2021079	50	50
45 Diethylphthalate	149	18.455	18.448	(1.040)	1824125	50	50
46 4-Chlorophenyl-phenylether	204	18.640	18.638	(1.051)	572748	50	50
47 Fluorene	166	18.653	18.645	(1.051)	1479785	50	50
48 4-Nitroaniline	138	18.706	18.685	(1.054)	517507	50	50
13 4,6-Dinitro-2-methylphenol	198	18.753	18.738	(0.928)	560706	80	80
49 N-Nitrosodiphenylamine	169	18.845	18.830	(0.933)	1164460	50	50
75 1,2-Diphenylhydrazine	77	18.911	18.903	(0.936)	1717668	50	50
$ 18 2,4,6-Tribromophenol (SUR)	330	19.050	19.041	(1.074)	315922	50	50

304036

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8225.d
Report Date: 16-Oct-98 23:23:07

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
50 4-Bromophenyl-phenylether	248	19.452	19.442	(0.963)	378752	50	50
51 Hexachlorobenzene	284	19.557	19.554	(0.968)	465464	50	50
14 Pentachlorophenol	266	19.880	19.875	(0.984)	450536	80	80
* 83 Phenanthrene-d10	188	20.203	20.197	(1.000)	1475215	40	
52 Phenanthrene	178	20.243	20.237	(1.002)	2167873	50	50
53 Anthracene	178	20.329	20.323	(1.006)	2310122	50	50
54 Carbazole	167	20.585	20.579	(1.019)	2377483	50	50
55 Di-n-butylphthalate	149	21.137	21.130	(1.046)	3101954	50	50
56 Fluoranthene	202	22.200	22.192	(1.099)	1915335	50	50
58 Benzidine	184	22.418	22.409	(1.110)	2262129	80	80
57 Pyrene	202	22.583	22.574	(0.919)	1949054	50	50
$ 78 Terphenyl-d14 (SUR)	244	22.813	22.804	(0.929)	1390244	50	50
59 Butylbenzylphthalate	149	23.608	23.598	(0.961)	1502281	50	50
60 3,3'-Dichlorobenzidine	252	24.502	24.490	(0.997)	1241029	80	80
61 Benzo(a)anthracene	228	24.549	24.537	(0.999)	1461101	50	50
63 bis(2-Ethylhexyl)phthalate	149	24.536	24.524	(0.999)	1700394	50	50
* 81 Chrysene-d12	240	24.569	24.564	(1.000)	985000	40	
62 Chrysene	228	24.616	24.604	(1.002)	1483612	50	50
64 Di-n-octylphthalate	149	25.747	25.733	(0.929)	3287995	50	50
65 Benzo(b)fluoranthene	252	26.706	26.692	(0.964)	1941979	50	50
66 Benzo(k)fluoranthene	252	26.793	26.758	(0.967)	1923983	50	50
67 Benzo(a)pyrene	252	27.562	27.533	(0.995)	1884746	50	50
* 84 Perylene-d12	264	27.707	27.705	(1.000)	1114019	40	
68 Indeno(1,2,3-cd)pyrene	276	31.377	31.339	(1.132)	1963108	50	50
69 Dibenz(a,h)anthracene	278	31.490	31.432	(1.136)	1797547	50	50
70 Benzo(g,h,i)perylene	276	32.554	32.482	(1.175)	1963169	50	50

QC Flag Legend

M - Compound response manually integrated.

304037

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8225.d
Date : 16-OCT-98 20:18:00
Client ID:
Sample Info: SSTD050

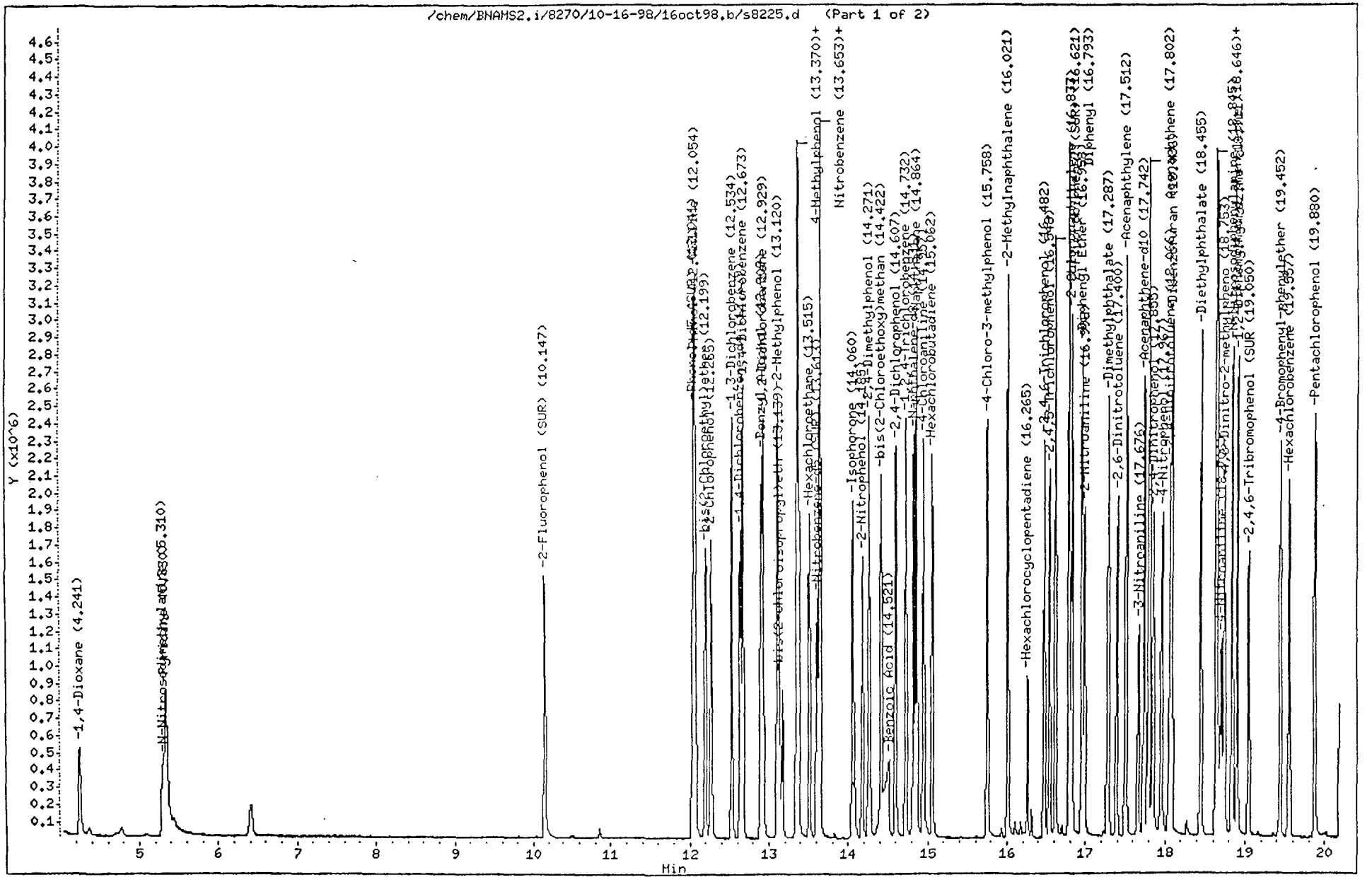
Instrument: BNAMS2.i

Operator: BNAMS 2

304038

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAHS2.i/8270/10-16-98/16oct98.b/s8225.d
Date : 16-OCT-98 20:18:00
Client ID:
Sample Info: SSTD050

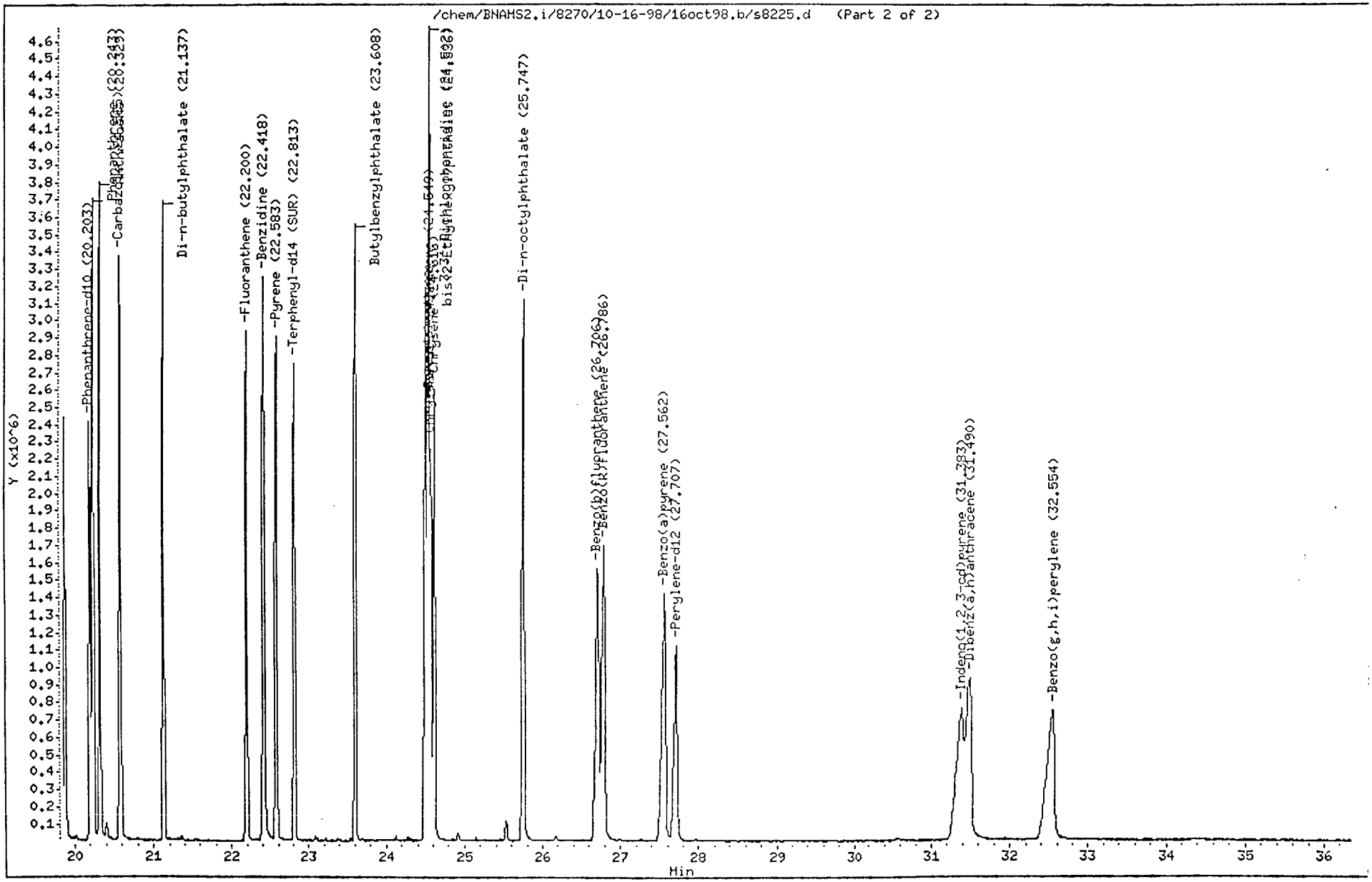
Instrument: BNAHS2.i

Operator: BNAHS 2

304039

Column phase: DB-5

Column diameter: 0.25



502

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8228.d
Report Date: 16-Oct-98 23:23:26

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8228.d
Lab Smp Id: SSTD020
Inj Date : 16-OCT-98 22:32:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SSTD020
Misc Info : 20 PPM STD
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/8270C-REV..m
Meth Date : 16-Oct-98 23:12:29 Quant Type: ISTD
Cal Date : 16-OCT-98 22:32:00 Cal File: s8228.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)
106 1,4-Dioxane	88	4.247	4.247	(0.336)	162431	20	20
19 N-Nitrosodimethylamine	74	5.296	5.296	(0.419)	246151	20	19
71 Pyridine	79	5.355	5.355	(0.424)	345660	20	18
$ 16 2-Fluorophenol (SUR)	112	10.152	10.152	(0.803)	360603	20	20
$ 17 Phenol-d5 (SUR)	99	12.032	12.032	(0.952)	508273	20	22
1 Phenol	94	12.059	12.059	(0.954)	559673	20	23
73 Aniline	93	12.052	12.052	(0.953)	603862	20	22
20 bis(2-Chloroethyl)ether	93	12.190	12.190	(0.964)	446311	20	22
2 2-Chlorophenol	128	12.269	12.269	(0.970)	336652	20	21
21 1,3-Dichlorobenzene	146	12.532	12.532	(0.991)	427632	20	22
* 79 1,4-Dichlorobenzene-d4	152	12.643	12.643	(1.000)	519200	40	
22 1,4-Dichlorobenzene	146	12.670	12.670	(1.002)	409583	20	22
74 Benzyl Alcohol	108	12.900	12.900	(1.020)	279538	20	22
23 1,2-Dichlorobenzene	146	12.933	12.933	(1.023)	410142	20	22
3 2-Methylphenol	108	13.110	13.110	(1.037)	356332	20	21

304040

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8228.d
Report Date: 16-Oct-98 23:23:26

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
24 bis(2-chloroisopropyl)ether	45	13.136	13.136	(1.039)	475142	20	23(M)
4 4-Methylphenol	108	13.366	13.366	(1.057)	349975	20	24
25 N-Nitroso-di-n-propylamine	70	13.360	13.360	(1.057)	238337	20	24
104 Acetophenone	105	13.353	13.353	(1.056)	509230	20	22
26 Hexachloroethane	117	13.518	13.518	(1.069)	164005	20	22
$ 76 Nitrobenzene-d5 (SUR)	82	13.603	13.603	(0.918)	382005	20	22
27 Nitrobenzene	77	13.643	13.643	(0.920)	499172	20	23
107 N,N-Dimethylaniline	120	13.643	13.643	(1.079)	505581	20	23
28 Isophorone	82	14.049	14.049	(0.948)	786191	20	22
5 2-Nitrophenol	139	14.181	14.181	(0.957)	233876	20	22
6 2,4-Dimethylphenol	122	14.260	14.260	(0.962)	323363	20	22
15 Benzoic Acid	122	14.451	14.451	(0.975)	194167	20	21(H)
29 bis(2-Chloroethoxy)methane	93	14.418	14.418	(0.972)	459215	20	23
7 2,4-Dichlorophenol	162	14.595	14.595	(0.984)	333951	20	22
30 1,2,4-Trichlorobenzene	180	14.727	14.727	(0.993)	321483	20	22
* 80 Naphthalene-d8	136	14.826	14.826	(1.000)	1700521	40	
31 Naphthalene	128	14.859	14.859	(1.002)	899499	20	22
32 4-Chloroaniline	127	14.951	14.951	(1.008)	429228	20	22
33 Hexachlorobutadiene	225	15.063	15.063	(1.016)	134066	20	23
8 4-Chloro-3-methylphenol	107	15.750	15.750	(1.062)	334344	20	22
34 2-Methylnaphthalene	142	16.012	16.012	(1.080)	676153	20	23
35 Hexachlorocyclopentadiene	237	16.269	16.269	(0.917)	64170	20	16
9 2,4,6-Trichlorophenol	196	16.479	16.479	(0.929)	203730	20	21
10 2,4,5-Trichlorophenol	196	16.545	16.545	(0.932)	206974	20	22
$ 77 2-Fluorobiphenyl (SUR)	172	16.618	16.618	(0.937)	745537	20	23
102 Diphenyl	154	16.782	16.782	(0.946)	891548	20	23
36 2-Chloronaphthalene	162	16.822	16.822	(0.948)	687706	20	22
103 Diphenyl Ether	170	16.954	16.954	(0.956)	473048	20	22
37 2-Nitroaniline	65	16.987	16.987	(0.957)	209314	20	22
38 Dimethylphthalate	163	17.282	17.282	(0.974)	872909	20	22
40 2,6-Dinitrotoluene	165	17.387	17.387	(0.980)	219671	20	21(H)
39 Acenaphthylene	152	17.506	17.506	(0.987)	1123075	20	22
41 3-Nitroaniline	138	17.663	17.663	(0.996)	156894	20	22
* 82 Acenaphthene-d10	164	17.743	17.743	(1.000)	1100936	40	
42 Acenaphthene	153	17.795	17.795	(1.003)	689784	20	22
11 2,4-Dinitrophenol	184	17.848	17.848	(1.006)	404104	50	51
12 4-Nitrophenol	65	17.954	17.954	(1.012)	322185	50	53
44 2,4-Dinitrotoluene	165	18.053	18.053	(1.017)	310321	20	23
43 Dibenzofuran	168	18.079	18.079	(1.019)	954481	20	23
45 Diethylphthalate	149	18.448	18.448	(1.040)	883070	20	23
46 4-Chlorophenyl-phenylether	204	18.638	18.638	(1.050)	284854	20	25
47 Fluorene	166	18.645	18.645	(1.051)	759855	20	24
48 4-Nitroaniline	138	18.685	18.685	(1.053)	232540	20	22
13 4,6-Dinitro-2-methylphenol	198	18.738	18.738	(0.928)	400912	50	54
49 N-Nitrosodiphenylamine	169	18.830	18.830	(0.932)	548643	20	22
75 1,2-Diphenylhydrazine	77	18.903	18.903	(0.936)	825192	20	23
$ 18 2,4,6-Tribromophenol (SUR)	330	19.041	19.041	(1.073)	143902	20	21(H)

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8228.d
Report Date: 16-Oct-98 23:23:26

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
50 4-Bromophenyl-phenylether	248	19.442	19.442	(0.963)	180345	20	22
51 Hexachlorobenzene	284	19.554	19.554	(0.968)	220311	20	22
14 Pentachlorophenol	266	19.875	19.875	(0.984)	311708	50	51
* 83 Phenanthrene-d10	188	20.197	20.197	(1.000)	1616701	40	
52 Phenanthrene	178	20.237	20.237	(1.002)	1074759	20	23
53 Anthracene	178	20.323	20.323	(1.006)	1136627	20	23
54 Carbazole	167	20.579	20.579	(1.019)	1160391	20	23
55 Di-n-butylphthalate	149	21.130	21.130	(1.046)	1577163	20	24
56 Fluoranthene	202	22.192	22.192	(1.099)	989357	20	24
58 Benzidine	184	22.409	22.409	(1.109)	1865849	50	62
57 Pyrene	202	22.574	22.574	(0.919)	993908	20	20
$ 78 Terphenyl-d14 (SUR)	244	22.804	22.804	(0.928)	715441	20	21
59 Butylbenzylphthalate	149	23.598	23.598	(0.961)	752318	20	20
60 3,3'-Dichlorobenzidine	252	24.490	24.490	(0.997)	973219	50	52
61 Benzo(a)anthracene	228	24.537	24.537	(0.999)	802053	20	23
63 bis(2-Ethylhexyl)phthalate	149	24.524	24.524	(0.998)	963559	20	24
* 81 Chrysene-d12	240	24.564	24.564	(1.000)	1221039	40	
62 Chrysene	228	24.604	24.604	(1.002)	797052	20	22
64 Di-n-octylphthalate	149	25.733	25.733	(0.929)	1770903	20	22
65 Benzo(b)fluoranthene	252	26.692	26.692	(0.963)	966421	20	19
66 Benzo(k)fluoranthene	252	26.758	26.758	(0.966)	1009241	20	22
67 Benzo(a)pyrene	252	27.533	27.533	(0.994)	951975	20	20
* 84 Perylene-d12	264	27.705	27.705	(1.000)	1392208	40	
68 Indeno(1,2,3-cd)pyrene	276	31.339	31.339	(1.131)	1010029	20	21
69 Dibenz(a,h)anthracene	278	31.432	31.432	(1.135)	934386	20	21
70 Benzo(g,h,i)perylene	276	32.482	32.482	(1.172)	999958	20	21

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304042

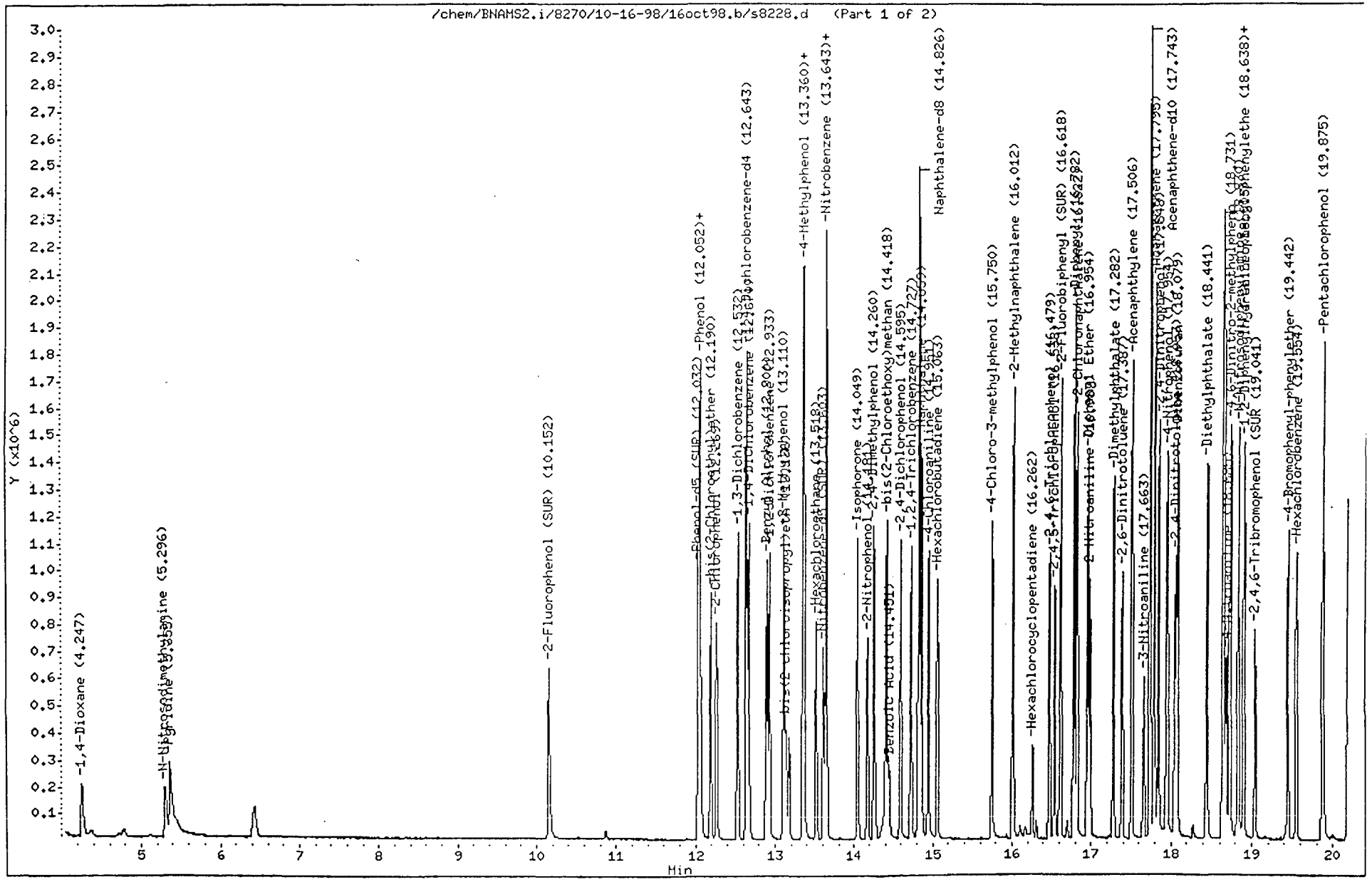
Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8228.d
Date : 16-OCT-98 22:32:00
Client ID:
Sample Info: SSTD020

Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

Column phase: DB-5

304043



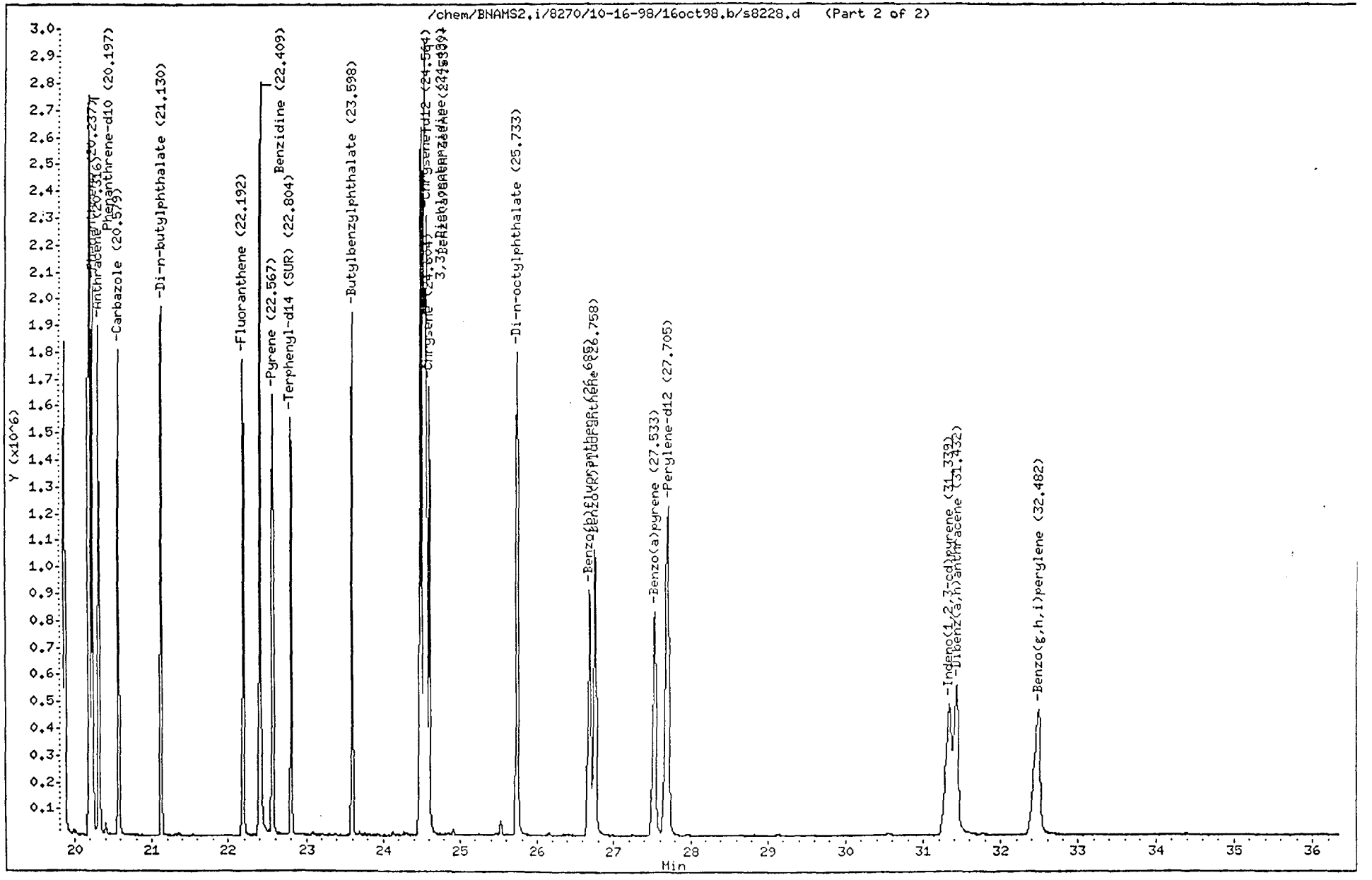
Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8228.d
Date : 16-OCT-98 22:32:00
Client ID:
Sample Info: SSTD020

Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

304044

Column phase: DB-5



Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8230.d
Report Date: 19-Oct-98 10:12:42

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8230.d
Lab Smp Id: SSTD005-S
Inj Date : 17-OCT-98 00:00:00
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SSTD005-S
Misc Info : 5 PPM STD
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/16oct98.b/8270C-REV..m
Meth Date : 19-Oct-98 10:10:10 Quant Type: ISTD
Cal Date : 17-OCT-98 00:00:00 Cal File: s8230.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.215	4.215	(0.334)	32272	5.0	4.6(a)
19 N-Nitrosodimethylamine	74	5.296	5.296	(0.419)	51984	5.0	4.7(aM)
71 Pyridine	79	5.427	5.427	(0.430)	71041	5.0	4.4(aM)
$ 16 2-Fluorophenol (SUR)	112	10.151	10.151	(0.803)	74307	5.0	4.9(a)
$ 17 Phenol-d5 (SUR)	99	12.024	12.024	(0.952)	109786	5.0	5.3
1 Phenol	94	12.051	12.051	(0.954)	122037	5.0	5.5
73 Aniline	93	12.044	12.044	(0.953)	136233	5.0	5.6
20 bis(2-Chloroethyl)ether	93	12.182	12.182	(0.964)	10614	0.50	0.57
2 2-Chlorophenol	128	12.261	12.261	(0.970)	69791	5.0	5.0(a)
21 1,3-Dichlorobenzene	146	12.530	12.530	(0.992)	98779	5.0	5.6
* 79 1,4-Dichlorobenzene-d4	152	12.635	12.635	(1.000)	454102	40	
22 1,4-Dichlorobenzene	146	12.668	12.668	(1.003)	92754	5.0	5.5
74 Benzyl Alcohol	108	12.891	12.891	(1.020)	59063	5.0	5.2
23 1,2-Dichlorobenzene	146	12.924	12.924	(1.023)	86612	5.0	5.4
3 2-Methylphenol	108	13.101	13.101	(1.037)	75685	5.0	5.2

304045

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8230.d
Report Date: 19-Oct-98 10:12:43

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	24 bis(2-chloroisopropyl)ether	45	13.134	13.134	(1.039)	122245	5.0	6.2(M)
	4 4-Methylphenol	108	13.357	13.357	(1.057)	75863	5.0	5.6
	25 N-Nitroso-di-n-propylamine	70	13.343	13.343	(1.056)	5521	0.50	0.60
	104 Acetophenone	105	13.337	13.337	(1.056)	119750	5.0	5.8
	26 Hexachloroethane	117	13.514	13.514	(1.070)	3971	0.50	0.58
$	76 Nitrobenzene-d5 (SUR)	82	13.599	13.599	(0.917)	84965	5.0	5.4
	27 Nitrobenzene	77	13.632	13.632	(0.919)	12516	0.50	0.62
	107 N,N-Dimethylaniline	120	13.632	13.632	(1.079)	11598	0.50	0.58
	28 Isophorone	82	14.038	14.038	(0.947)	171953	5.0	5.4
	5 2-Nitrophenol	139	14.176	14.176	(0.956)	47829	5.0	5.0
	6 2,4-Dimethylphenol	122	14.255	14.255	(0.961)	64462	5.0	5.0(a)
	15 Benzoic Acid	122	14.373	14.373	(0.969)	17054	5.0	2.4(aH)
	29 bis(2-Chloroethoxy)methane	93	14.413	14.413	(0.972)	122264	5.0	6.5
	7 2,4-Dichlorophenol	162	14.590	14.590	(0.984)	67649	5.0	5.1
	30 1,2,4-Trichlorobenzene	180	14.721	14.721	(0.993)	8146	0.50	0.61
*	80 Naphthalene-d8	136	14.826	14.826	(1.000)	1482491	40	
	31 Naphthalene	128	14.859	14.859	(1.002)	215371	5.0	5.8
	32 4-Chloroaniline	127	14.944	14.944	(1.008)	98260	5.0	5.6
	33 Hexachlorobutadiene	225	15.063	15.063	(1.016)	6326	1.0	1.2
	8 4-Chloro-3-methylphenol	107	15.750	15.750	(1.062)	67667	5.0	5.2
	34 2-Methylnaphthalene	142	16.013	16.013	(1.080)	157317	5.0	5.8
	35 Hexachlorocyclopentadiene	237	16.269	16.269	(0.917)	10990	5.0	3.5(a)
	9 2,4,6-Trichlorophenol	196	16.472	16.472	(0.929)	40381	5.0	5.0
	10 2,4,5-Trichlorophenol	196	16.544	16.544	(0.933)	41765	5.0	5.1
$	77 2-Fluorobiphenyl (SUR)	172	16.610	16.610	(0.936)	168230	5.0	5.8
	102 Diphenyl	154	16.781	16.781	(0.946)	201191	5.0	6.0
	36 2-Chloronaphthalene	162	16.820	16.820	(0.948)	155592	5.0	5.8
	103 Diphenyl Ether	170	16.952	16.952	(0.956)	111627	5.0	5.9
	37 2-Nitroaniline	65	16.978	16.978	(0.957)	90272	10	11
	38 Dimethylphthalate	163	17.273	17.273	(0.974)	189149	5.0	5.5
	40 2,6-Dinitrotoluene	165	17.378	17.378	(0.980)	8257	1.0	0.96(a)
	39 Acenaphthylene	152	17.503	17.503	(0.987)	241311	5.0	5.5
	41 3-Nitroaniline	138	17.653	17.653	(0.995)	94787	10	14
*	82 Acenaphthene-d10	164	17.739	17.739	(1.000)	924899	40	
	42 Acenaphthene	153	17.792	17.792	(1.003)	153000	5.0	5.7
	11 2,4-Dinitrophenol	184	17.838	17.838	(1.006)	106739	20	17(a)
	12 4-Nitrophenol	65	17.943	17.943	(1.012)	98593	20	20(a)
	43 Dibenzofuran	168	18.075	18.075	(1.019)	226363	5.0	6.1
	45 Diethylphthalate	149	18.435	18.435	(1.039)	219651	5.0	6.4
	46 4-Chlorophenyl-phenylether	204	18.632	18.632	(1.050)	65640	5.0	6.4
	47 Fluorene	166	18.639	18.639	(1.051)	180793	5.0	6.4
	48 4-Nitroaniline	138	18.665	18.665	(1.052)	96761	10	11
	13 4,6-Dinitro-2-methylphenol	198	18.718	18.718	(0.927)	122831	20	20(a)
	49 N-Nitrosodiphenylamine	169	18.823	18.823	(0.932)	132046	5.0	6.1
	75 1,2-Diphenylhydrazine	77	18.896	18.896	(0.936)	205825	5.0	6.4
$	18 2,4,6-Tribromophenol (SUR)	330	19.033	19.033	(1.073)	28445	5.0	5.0(a)
	50 4-Bromophenyl-phenylether	248	19.440	19.440	(0.963)	41149	5.0	5.9

304046

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8230.d
Report Date: 19-Oct-98 10:12:43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
51 Hexachlorobenzene	284	19.545	19.545	(0.968)	4673	0.50	0.55
14 Pentachlorophenol	266	19.872	19.872	(0.984)	88864	20	18(a)
* 83 Phenanthrene-d10	188	20.194	20.194	(1.000)	1340386	40	
52 Phenanthrene	178	20.227	20.227	(1.002)	246675	5.0	6.0
53 Anthracene	178	20.313	20.313	(1.006)	246866	5.0	5.8
54 Carbazole	167	20.569	20.569	(1.019)	252362	5.0	5.7
55 Di-n-butylphthalate	149	21.126	21.126	(1.046)	358427	5.0	6.1
56 Fluoranthene	202	22.187	22.187	(1.099)	220967	5.0	6.1
58 Benzidine	184	22.397	22.397	(1.109)	626192	20	24
57 Pyrene	202	22.561	22.561	(0.919)	219683	5.0	5.2
$ 78 Terphenyl-d14 (SUR)	244	22.804	22.804	(0.929)	154698	5.0	5.3
59 Butylbenzylphthalate	149	23.597	23.597	(0.961)	169292	5.0	5.2
60 3,3'-Dichlorobenzidine	252	24.468	24.468	(0.996)	168451	10	10
61 Benzo(a)anthracene	228	24.528	24.528	(0.999)	21218	0.50	0.64
63 bis(2-Ethylhexyl)phthalate	149	24.521	24.521	(0.999)	193903	5.0	5.4
* 81 Chrysene-d12	240	24.555	24.555	(1.000)	1062078	40	
62 Chrysene	228	24.588	24.588	(1.001)	175423	5.0	5.4
64 Di-n-octylphthalate	149	25.729	25.729	(0.929)	382491	5.0	5.4
65 Benzo(b)fluoranthene	252	26.666	26.666	(0.963)	21994	0.50	0.51
66 Benzo(k)fluoranthene	252	26.732	26.732	(0.965)	21684	0.50	0.54
67 Benzo(a)pyrene	252	27.512	27.512	(0.993)	19162	0.50	0.48(a)
* 84 Perylene-d12	264	27.696	27.696	(1.000)	1186788	40	
68 Indeno(1,2,3-cd)pyrene	276	31.281	31.281	(1.129)	18296	0.50	0.45(aH)
69 Dibenz(a,h)anthracene	278	31.366	31.366	(1.133)	18679	0.50	0.50(aM)
70 Benzo(g,h,i)perylene	276	32.409	32.409	(1.170)	201075	5.0	5.0(a)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304047

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8230.d
Date : 17-OCT-98 00:00:00
Client ID:
Sample Info: SSTD005-S

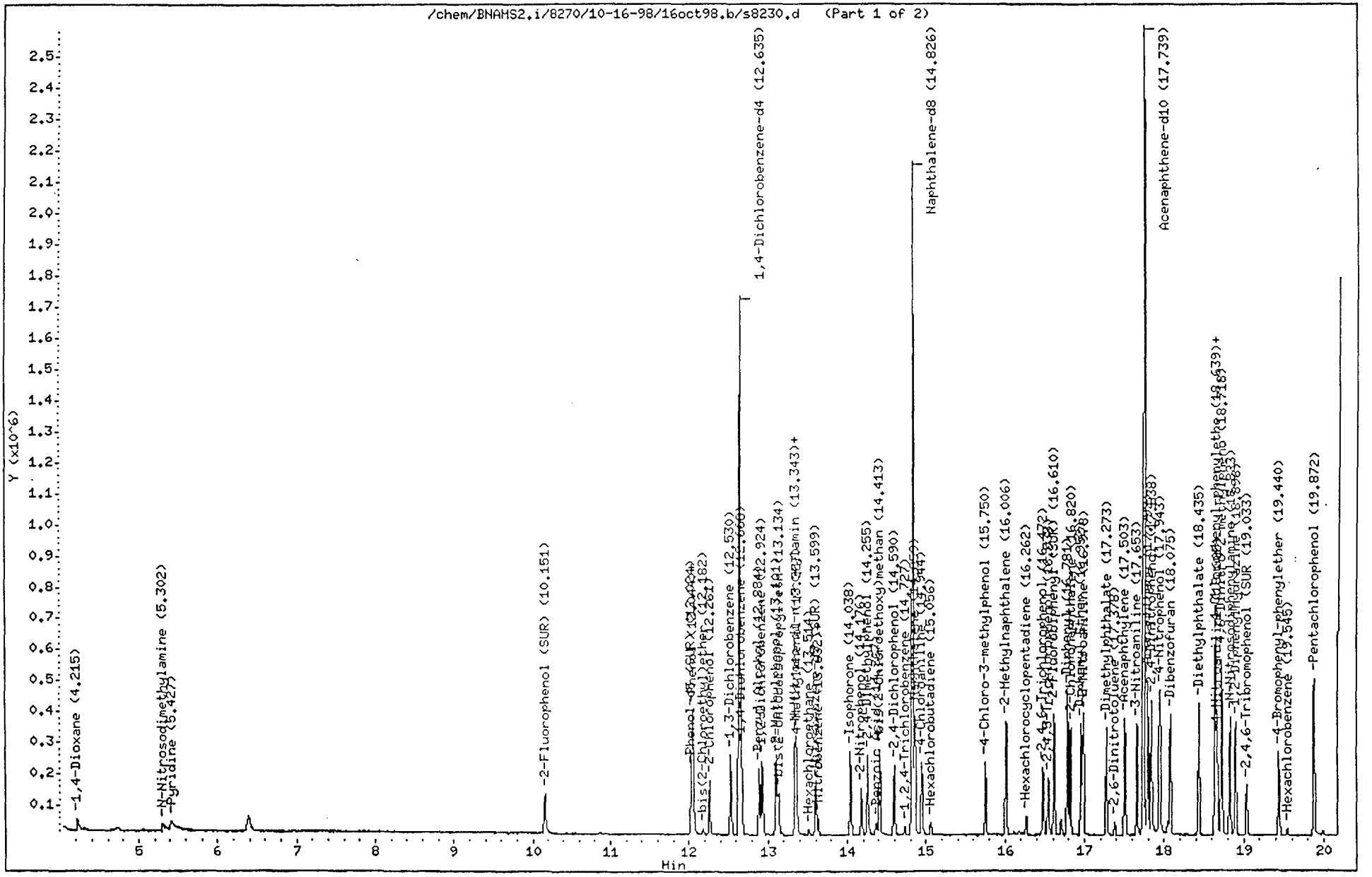
Instrument: BNAMS2.i

Operator: BNAMS 2

304048

Column phase: DB-5

Column diameter: 0.25



511

Data File: /chem/BNAMS2.i/8270/10-16-98/16oct98.b/s8230.d
Date : 17-OCT-98 00:00:00
Client ID:
Sample Info: SSTD005-S

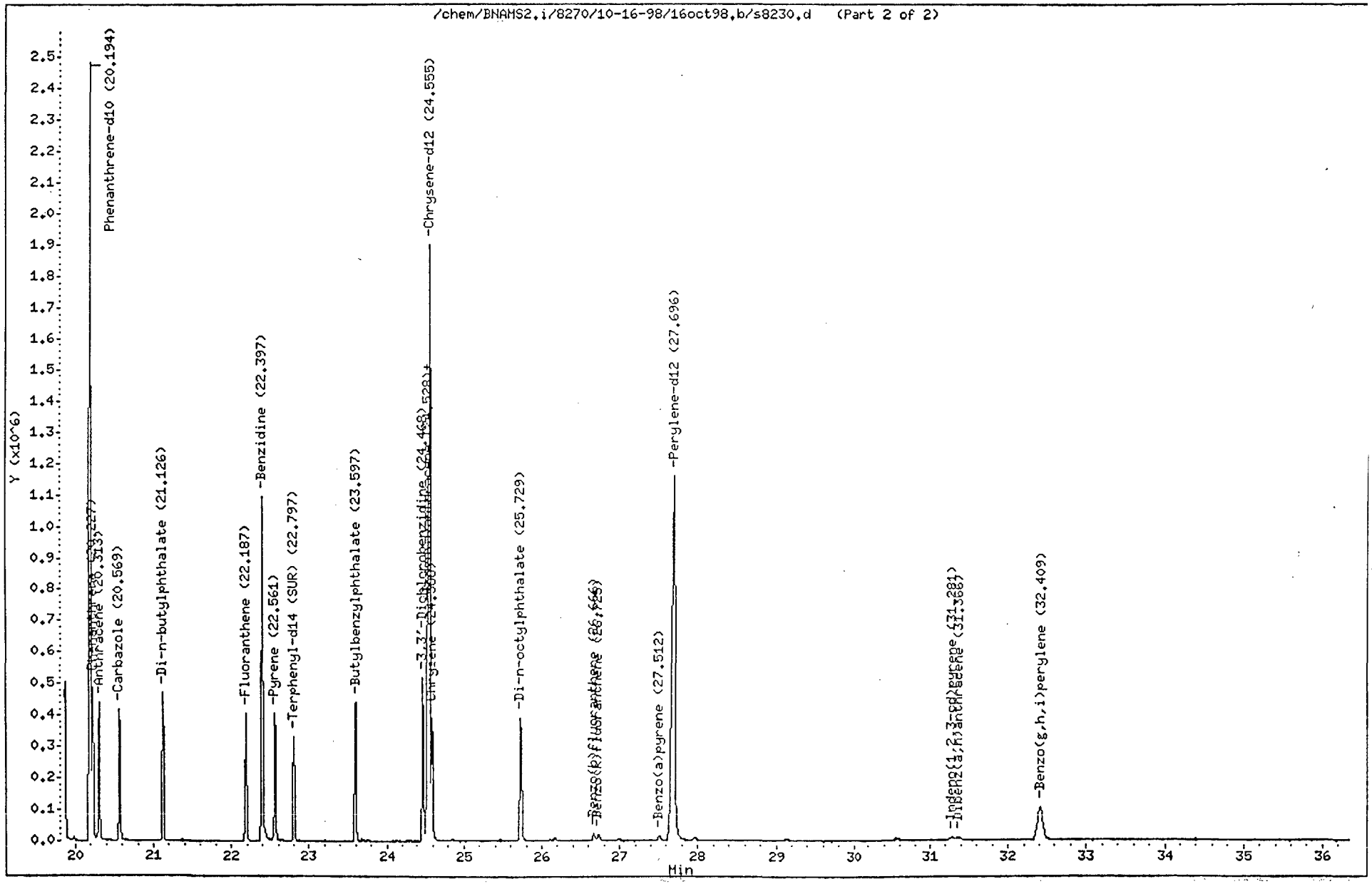
Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

Column phase: DB-5

304049

512



SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date: 10/20/98 Time: 1004

Lab File ID: S8290 Init. Calib. Date(s): 10/16/98 10/17/98

Init. Calib. Times: 2018 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.955	2.055		-5.1	20.0
2-Chlorophenol	1.227	1.327		-8.1	20.0
2-Methylphenol	1.290	1.356		-5.1	20.0
4-Methylphenol	1.182	1.281		-8.2	20.0
2-Nitrophenol	0.255	0.270		-5.7	20.0
2,4-Dimethylphenol	0.347	0.363		-4.6	20.0
2,4-Dichlorophenol	0.358	0.370		-3.2	20.0
4-Chloro-3-methylphenol	0.353	0.377		-6.6	20.0
2,4,6-Trichlorophenol	0.347	0.349		-0.0	20.0
2,4,5-Trichlorophenol	0.351	0.357		-1.7	20.0
2,4-Dinitrophenol	0.275	0.281	0.05	-2.0	20.0
4-Nitrophenol	0.218	0.229	0.05	-5.0	20.0
4,6-Dinitro-2-methylphenol	0.184	0.190		-3.1	20.0
Pentachlorophenol	0.148	0.155		-4.7	20.0
Benzoic Acid	0.192	0.246		-28.1	20.0
N-Nitrosodimethylamine	0.972	1.066		-9.5	20.0
bis(2-Chloroethyl)ether	1.644	1.688		-2.5	20.0
1,3-Dichlorobenzene	1.551	1.533		1.2	20.0
1,4-Dichlorobenzene	1.493	1.492		0.1	20.0
1,2-Dichlorobenzene	1.425	1.444		-1.3	20.0
bis(2-chloroisopropyl)ether	1.725	1.694		1.8	20.0
N-Nitroso-di-n-propylamine	0.816	0.866	0.05	-6.1	20.0
Hexachloroethane	0.607	0.619		-1.8	20.0
Nitrobenzene	0.540	0.510		5.6	20.0
Isophorone	0.866	0.907		-4.7	20.0
bis(2-Chloroethoxy)methane	0.508	0.494		2.8	20.0
1,2,4-Trichlorobenzene	0.359	0.345		3.9	20.0
Naphthalene	0.992	0.974		1.8	20.0
4-Chloroaniline	0.475	0.476		-0.0	20.0
Hexachlorobutadiene	0.144	0.141		2.1	20.0
2-Methylnaphthalene	0.728	0.726		0.3	20.0
Hexachlorocyclopentadiene	0.135	0.122	0.05	9.6	20.0
2-Chloronaphthalene	1.165	1.160		0.4	20.0
2-Nitroaniline	0.348	0.359		-3.0	20.0
Dimethylphthalate	1.480	1.490		0.1	20.0
Acenaphthylene	1.884	1.835		2.6	20.0
2,6-Dinitrotoluene	0.370	0.396		-7.0	20.0

304050

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date: 10/20/98 Time: 1004

Lab File ID: S8290 Init. Calib. Date(s): 10/16/98 10/17/98

Init. Calib. Times: 2018 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
3-Nitroaniline	0.294	0.290		1.4	20.0
Acenaphthene	1.156	1.132		2.1	20.0
Dibenzofuran	1.602	1.586		1.0	20.0
2,4-Dinitrotoluene	0.494	0.533		-7.7	20.0
Diethylphthalate	1.481	1.490		0.1	20.0
4-Chlorophenyl-phenylether	0.444	0.443		0.2	20.0
Fluorene	1.222	1.159		5.2	20.0
4-Nitroaniline	0.391	0.427		-9.2	20.0
N-Nitrosodiphenylamine	0.648	0.624		3.7	20.0
4-Bromophenyl-phenylether	0.209	0.201		3.8	20.0
Hexachlorobenzene	0.253	0.243		4.0	20.0
Phenanthrene	1.221	1.180		3.4	20.0
Anthracene	1.262	1.219		3.4	20.0
Carbazole	1.316	1.296		1.5	20.0
Di-n-butylphthalate	1.746	1.660		4.9	20.0
Fluoranthene	1.083	1.042		3.8	20.0
Pyrene	1.604	1.620		0.1	20.0
Benzidine	0.783	0.662		15.4	20.0
Butylbenzylphthalate	1.217	1.148		5.7	20.0
3,3'-Dichlorobenzidine	0.617	0.576		6.6	20.0
Benzo(a)anthracene	1.238	1.172		5.3	20.0
Chrysene	1.217	1.198		1.6	20.0
bis(2-Ethylhexyl)phthalate	1.356	1.349		0.5	20.0
Di-n-octylphthalate	2.392	2.422		-1.2	20.0
Benzo(b)fluoranthene	1.440	1.390		3.5	20.0
Benzo(k)fluoranthene	1.356	1.368		0.1	20.0
Benzo(a)pyrene	1.330	1.292		2.8	20.0
Indeno(1,2,3-cd)pyrene	1.364	1.343		1.5	20.0
Dibenz(a,h)anthracene	1.255	1.296		-3.1	20.0
Benzo(g,h,i)perylene	1.350	1.327		1.7	20.0
Pyridine	1.423	1.610		-13.1	20.0
Aniline	2.157	2.136		1.0	20.0
Benzyl Alcohol	0.991	1.060		-6.8	20.0
1,2-Diphenylhydrazine	0.967	0.919		5.0	20.0
Diphenyl	1.462	1.433		2.0	20.0
Diphenyl Ether	0.815	0.772		5.3	20.0
Acetophenone	1.825	1.899	0.01	-4.0	20.0

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date: 10/20/98 Time: 1004

Lab File ID: S8290 Init. Calib. Date(s): 10/16/98 10/17/98

Init. Calib. Times: 2018 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,4-Dioxane	0.613	0.630	0.01	-2.6	20.0
N,N-Dimethylaniline	1.771	1.792	0.01	-1.0	20.0
2-Fluorophenol (SUR)	1.344	1.412		-5.0	20.0
Phenol-d5 (SUR)	1.809	1.837		-1.5	20.0
2,4,6-Tribromophenol (SUR)	0.246	0.254		-3.2	20.0
Nitrobenzene-d5 (SUR)	0.424	0.434		-2.2	20.0
2-Fluorobiphenyl (SUR)	1.247	1.209		3.0	20.0
Terphenyl-d14 (SUR)	1.107	1.082		2.2	20.0

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8290.d
Report Date: 09-Nov-1998 10:51

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8290.d
Lab Smp Id: SSTD293
Inj Date : 20-OCT-1998 10:04
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SSTD293
Misc Info : 50 PPM BNA STD
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/20oct98.b/8270C-REV..m
Meth Date : 20-Oct-98 10:36:06 Quant Type: ISTD
Cal Date : 17-OCT-1998 00:00 Cal File: s8230.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.286	4.286	(0.338)	437806	50.0000	51(M)
19 N-Nitrosodimethylamine	74	5.375	5.375	(0.424)	741466	50.0000	55(M)
71 Pyridine	79	5.402	5.402	(0.426)	1119879	50.0000	57(M)
$ 16 2-Fluorophenol (SUR)	112	10.194	10.194	(0.805)	982083	50.0000	52
$ 17 Phenol-d5 (SUR)	99	12.083	12.083	(0.954)	1277200	50.0000	51
1 Phenol	94	12.110	12.110	(0.956)	1428965	50.0000	52
73 Aniline	93	12.090	12.090	(0.954)	1484972	50.0000	50
20 bis(2-Chloroethyl)ether	93	12.228	12.228	(0.965)	1173435	50.0000	51
2 2-Chlorophenol	128	12.301	12.301	(0.971)	922837	50.0000	54
21 1,3-Dichlorobenzene	146	12.564	12.564	(0.992)	1065726	50.0000	49
* 79 1,4-Dichlorobenzene-d4	152	12.669	12.669	(1.000)	556261	40.0000	
22 1,4-Dichlorobenzene	146	12.702	12.702	(1.003)	1037125	50.0000	50
74 Benzyl Alcohol	108	12.939	12.939	(1.021)	737247	50.0000	53
23 1,2-Dichlorobenzene	146	12.959	12.959	(1.023)	1003828	50.0000	51

304053

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8290.d
Report Date: 09-Nov-1998 10:51

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
3 2-Methylphenol	108	13.150	13.150	(1.038)	942748	50.0000	52
24 bis(2-chloroisopropyl)ether	45	13.169	13.169	(1.039)	1177934	50.0000	49(M)
4 4-Methylphenol	108	13.413	13.413	(1.059)	890710	50.0000	54
25 N-Nitroso-di-n-propylamine	70	13.407	13.407	(1.058)	602243	50.0000	53
104 Acetophenone	105	13.393	13.393	(1.057)	1320427	50.0000	52
26 Hexachloroethane	117	13.545	13.545	(1.069)	430744	50.0000	51
$ 76 Nitrobenzene-d5 (SUR)	82	13.644	13.644	(0.918)	1042235	50.0000	51
27 Nitrobenzene	77	13.683	13.683	(0.921)	1223456	50.0000	47
107 N,N-Dimethylaniline	120	13.683	13.683	(1.080)	1246261	50.0000	50
28 Isophorone	82	14.091	14.091	(0.948)	2176308	50.0000	52
5 2-Nitrophenol	139	14.216	14.216	(0.957)	647611	50.0000	53
6 2,4-Dimethylphenol	122	14.308	14.308	(0.963)	870829	50.0000	52
15 Benzoic Acid	122	14.572	14.572	(0.981)	591356	50.0000	64(H)
29 bis(2-Chloroethoxy)methane	93	14.453	14.453	(0.973)	1184985	50.0000	49
7 2,4-Dichlorophenol	162	14.638	14.638	(0.985)	887135	50.0000	52
30 1,2,4-Trichlorobenzene	180	14.757	14.757	(0.993)	828403	50.0000	48
* 80 Naphthalene-d8	136	14.856	14.856	(1.000)	1918958	40.0000	
31 Naphthalene	128	14.896	14.896	(1.003)	2337426	50.0000	49
32 4-Chloroaniline	127	14.989	14.989	(1.009)	1142627	50.0000	50
33 Hexachlorobutadiene	225	15.094	15.094	(1.016)	337865	50.0000	49
8 4-Chloro-3-methylphenol	107	15.791	15.791	(1.063)	905169	50.0000	53
34 2-Methylnaphthalene	142	16.048	16.048	(1.080)	1742207	50.0000	50
35 Hexachlorocyclopentadiene	237	16.299	16.299	(0.917)	189058	50.0000	45
9 2,4,6-Trichlorophenol	196	16.516	16.516	(0.929)	543043	50.0000	50
10 2,4,5-Trichlorophenol	196	16.582	16.582	(0.933)	554560	50.0000	51
$ 77 2-Fluorobiphenyl (SUR)	172	16.649	16.649	(0.936)	1879109	50.0000	48
102 Diphenyl	154	16.820	16.820	(0.946)	2226075	50.0000	49
36 2-Chloronaphthalene	162	16.860	16.860	(0.948)	1803122	50.0000	50
103 Diphenyl Ether	170	16.992	16.992	(0.956)	1200100	50.0000	47
37 2-Nitroaniline	65	17.032	17.032	(0.958)	558443	50.0000	52
38 Dimethylphthalate	163	17.322	17.322	(0.974)	2314777	50.0000	50
40 2,6-Dinitrotoluene	165	17.435	17.435	(0.981)	615481	50.0000	53
39 Acenaphthylene	152	17.547	17.547	(0.987)	2851775	50.0000	49
41 3-Nitroaniline	138	17.712	17.712	(0.996)	450032	50.0000	49
* 82 Acenaphthene-d10	164	17.778	17.778	(1.000)	1243091	40.0000	
42 Acenaphthene	153	17.838	17.838	(1.003)	1758630	50.0000	49
11 2,4-Dinitrophenol	184	17.891	17.891	(1.006)	699858	80.0000	82
12 4-Nitrophenol	65	18.010	18.010	(1.013)	568925	80.0000	84
44 2,4-Dinitrotoluene	165	18.103	18.103	(1.018)	827983	50.0000	54
43 Dibenzofuran	168	18.123	18.123	(1.019)	2464693	50.0000	49
45 Diethylphthalate	149	18.486	18.486	(1.040)	2314631	50.0000	50
46 4-Chlorophenyl-phenylether	204	18.671	18.671	(1.050)	688879	50.0000	50
47 Fluorene	166	18.684	18.684	(1.051)	1801142	50.0000	47
48 4-Nitroaniline	138	18.751	18.751	(1.055)	662971	50.0000	54(H)
13 4,6-Dinitro-2-methylphenol	198	18.791	18.791	(0.929)	705233	80.0000	82
49 N-Nitrosodiphenylamine	169	18.877	18.877	(0.933)	1447514	50.0000	48
75 1,2-Diphenylhydrazine	77	18.943	18.943	(0.936)	2133708	50.0000	48

304054

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8290.d
Report Date: 09-Nov-1998 10:51

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 18 2,4,6-Tribromophenol (SUR)	330	19.082	19.082	(1.073)	394641	50.0000	52
50 4-Bromophenyl-phenylether	248	19.485	19.485	(0.963)	465796	50.0000	48
51 Hexachlorobenzene	284	19.591	19.591	(0.968)	564719	50.0000	48
14 Pentachlorophenol	266	19.922	19.922	(0.985)	576638	80.0000	84
* 83 Phenanthrene-d10	188	20.232	20.232	(1.000)	1856495	40.0000	
52 Phenanthrene	178	20.279	20.279	(1.002)	2739682	50.0000	48
53 Anthracene	178	20.366	20.366	(1.007)	2829216	50.0000	48
54 Carbazole	167	20.623	20.623	(1.019)	3007124	50.0000	49
55 Di-n-butylphthalate	149	21.164	21.164	(1.046)	3851474	50.0000	48
56 Fluoranthene	202	22.232	22.232	(1.099)	2417295	50.0000	48
58 Benzidine	184	22.450	22.450	(1.110)	2458927	80.0000	68
57 Pyrene	202	22.616	22.616	(0.919)	2443370	50.0000	50
$ 78 Terphenyl-d14 (SUR)	244	22.848	22.848	(0.929)	1632720	50.0000	49
59 Butylbenzylphthalate	149	23.633	23.633	(0.961)	1732209	50.0000	47
60 3,3'-Dichlorobenzidine	252	24.538	24.538	(0.997)	1391471	80.0000	75
61 Benzo(a)anthracene	228	24.578	24.578	(0.999)	1768364	50.0000	47
63 bis(2-Ethylhexyl)phthalate	149	24.565	24.565	(0.998)	2035483	50.0000	50
* 81 Chrysene-d12	240	24.605	24.605	(1.000)	1206897	40.0000	
62 Chrysene	228	24.652	24.652	(1.002)	1807736	50.0000	49
64 Di-n-octylphthalate	149	25.788	25.788	(0.928)	4087903	50.0000	51
65 Benzo(b)fluoranthene	252	26.765	26.765	(0.964)	2344815	50.0000	48
66 Benzo(k)fluoranthene	252	26.845	26.845	(0.966)	2308872	50.0000	50
67 Benzo(a)pyrene	252	27.623	27.623	(0.994)	2181145	50.0000	48
* 84 Perylene-d12	264	27.776	27.776	(1.000)	1350004	40.0000	
68 Indeno(1,2,3-cd)pyrene	276	31.484	31.484	(1.133)	2266645	50.0000	49(M)
69 Dibenz(a,h)anthracene	278	31.604	31.604	(1.138)	2187362	50.0000	52
70 Benzo(g,h,i)perylene	276	32.673	32.673	(1.176)	2238699	50.0000	49

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304055

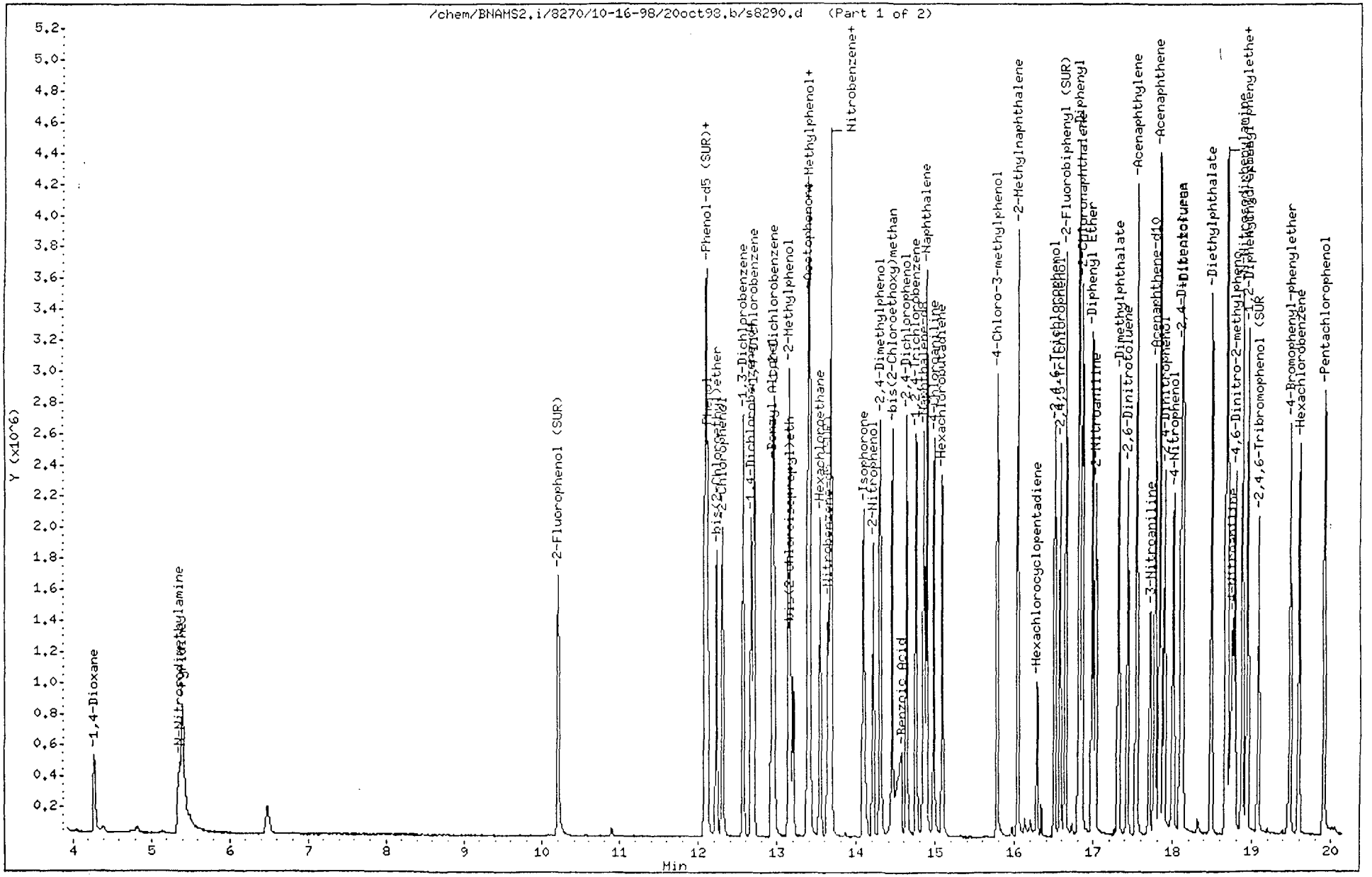
Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8290.d
Date : 20-OCT-1998 10:04
Client ID:
Sample Info: SSTD293

Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

Column phase: DB-5

304056



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98.b/s8290.d
Date : 20-OCT-1998 10:04
Client ID:
Sample Info: SSTD293

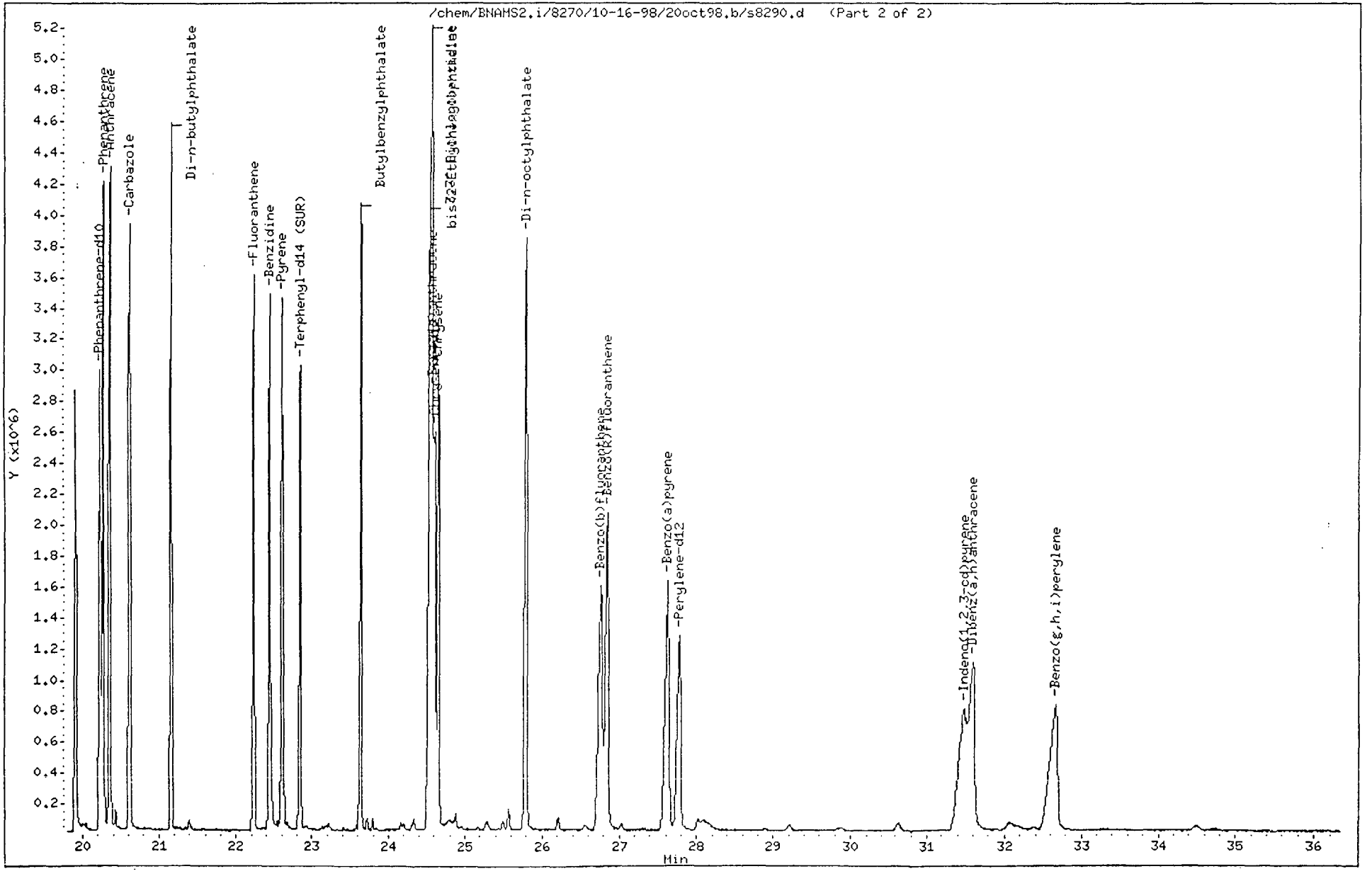
Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

Column phase: DB-5

304057

520



SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date: 10/20/98 Time: 2146

Lab File ID: S8305 Init. Calib. Date(s): 10/16/98 10/17/98

Init. Calib. Times: 2018 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	1.955	2.020		-3.3	20.0
2-Chlorophenol	1.227	1.312		-6.9	20.0
2-Methylphenol	1.290	1.323		-2.4	20.0
4-Methylphenol	1.182	1.253		-6.0	20.0
2-Nitrophenol	0.255	0.264		-3.5	20.0
2,4-Dimethylphenol	0.347	0.349		-0.0	20.0
2,4-Dichlorophenol	0.358	0.361		0.1	20.0
4-Chloro-3-methylphenol	0.353	0.357		-1.1	20.0
2,4,6-Trichlorophenol	0.347	0.344		0.9	20.0
2,4,5-Trichlorophenol	0.351	0.354		0.1	20.0
2,4-Dinitrophenol	0.275	0.280	0.05	-1.8	20.0
4-Nitrophenol	0.218	0.221	0.05	-1.2	20.0
4,6-Dinitro-2-methylphenol	0.184	0.189		-2.7	20.0
Pentachlorophenol	0.148	0.152		-2.7	20.0
Benzoic Acid	0.192	0.233		-21.2	20.0
N-Nitrosodimethylamine	0.972	1.021		-5.0	20.0
bis(2-Chloroethyl)ether	1.644	1.690		-2.6	20.0
1,3-Dichlorobenzene	1.551	1.562		0.1	20.0
1,4-Dichlorobenzene	1.493	1.509		-0.9	20.0
1,2-Dichlorobenzene	1.425	1.485		-4.2	20.0
bis(2-chloroisopropyl)ether	1.725	1.780		-3.0	20.0
N-Nitroso-di-n-propylamine	0.816	0.867	0.05	-6.2	20.0
Hexachloroethane	0.607	0.633		-4.1	20.0
Nitrobenzene	0.540	0.505		6.5	20.0
Isophorone	0.866	0.864		0.2	20.0
bis(2-Chloroethoxy)methane	0.508	0.484		4.7	20.0
1,2,4-Trichlorobenzene	0.359	0.341		5.0	20.0
Naphthalene	0.992	0.952		4.0	20.0
4-Chloroaniline	0.475	0.462		2.7	20.0
Hexachlorobutadiene	0.144	0.139		3.5	20.0
2-Methylnaphthalene	0.728	0.711		2.3	20.0
Hexachlorocyclopentadiene	0.135	0.130	0.05	3.7	20.0
2-Chloronaphthalene	1.165	1.165		0.0	20.0
2-Nitroaniline	0.348	0.358		-2.7	20.0
Dimethylphthalate	1.480	1.453		1.8	20.0
Acenaphthylene	1.884	1.880		0.2	20.0
2,6-Dinitrotoluene	0.370	0.379		-2.4	20.0

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date: 10/20/98 Time: 2146

Lab File ID: S8305 Init. Calib. Date(s): 10/16/98 10/17/98

Init. Calib. Times: 2018 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
3-Nitroaniline	0.294	0.282		4.1	20.0
Acenaphthene	1.156	1.102		4.7	20.0
Dibenzofuran	1.602	1.605		-0.0	20.0
2,4-Dinitrotoluene	0.494	0.511		-3.4	20.0
Diethylphthalate	1.481	1.438		2.9	20.0
4-Chlorophenyl-phenylether	0.444	0.449		-1.1	20.0
Fluorene	1.222	1.158		5.2	20.0
4-Nitroaniline	0.391	0.403		-2.9	20.0
N-Nitrosodiphenylamine	0.648	0.628		3.1	20.0
4-Bromophenyl-phenylether	0.209	0.209		0.0	20.0
Hexachlorobenzene	0.253	0.255		0.1	20.0
Phenanthrene	1.221	1.180		3.4	20.0
Anthracene	1.262	1.250		1.0	20.0
Carbazole	1.316	1.299		1.3	20.0
Di-n-butylphthalate	1.746	1.716		1.7	20.0
Fluoranthene	1.083	1.085		-0.0	20.0
Pyrene	1.604	1.678		-4.6	20.0
Benzidine	0.783	0.685		12.5	20.0
Butylbenzylphthalate	1.217	1.145		5.9	20.0
3,3'-Dichlorobenzidine	0.617	0.590		4.4	20.0
Benzo(a)anthracene	1.238	1.222		1.3	20.0
Chrysene	1.217	1.197		1.6	20.0
bis(2-Ethylhexyl)phthalate	1.356	1.376		-1.3	20.0
Di-n-octylphthalate	2.392	2.465		-3.0	20.0
Benzo(b)fluoranthene	1.440	1.359		5.6	20.0
Benzo(k)fluoranthene	1.356	1.381		-1.8	20.0
Benzo(a)pyrene	1.330	1.315		1.1	20.0
Indeno(1,2,3-cd)pyrene	1.364	1.310		4.0	20.0
Dibenz(a,h)anthracene	1.255	1.276		-1.5	20.0
Benzo(g,h,i)perylene	1.350	1.306		3.2	20.0
Pyridine	1.423	1.548		-8.6	20.0
Aniline	2.157	2.139		0.8	20.0
Benzyl Alcohol	0.991	1.035		-4.4	20.0
1,2-Diphenylhydrazine	0.967	0.946		2.2	20.0
Diphenyl	1.462	1.440		1.5	20.0
Diphenyl Ether	0.815	0.791		2.9	20.0
Acetophenone	1.825	1.895	0.01	-3.8	20.0

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS2 Calibration Date: 10/20/98 Time: 2146

Lab File ID: S8305 Init. Calib. Date(s): 10/16/98 10/17/98

Init. Calib. Times: 2018 0000

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,4-Dioxane	0.613	0.629	0.01	-2.6	20.0
N,N-Dimethylaniline	1.771	1.792	0.01	-1.0	20.0
2-Fluorophenol (SUR)	1.344	1.455		-8.2	20.0
Phenol-d5 (SUR)	1.809	1.826		0.1	20.0
2,4,6-Tribromophenol (SUR)	0.246	0.239		2.8	20.0
Nitrobenzene-d5 (SUR)	0.424	0.432		-1.7	20.0
2-Fluorobiphenyl (SUR)	1.247	1.257		0.1	20.0
Terphenyl-d14 (SUR)	1.107	1.143		-3.2	20.0

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8305.d
Report Date: 09-Nov-1998 10:52

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8305.d
Lab Smp Id: SSTD293A
Inj Date : 20-OCT-1998 21:46
Operator : BNAMS 2 Inst ID: BNAMS2.i
Smp Info : SSTD293A
Misc Info : 50 PPM BNA STD
Comment :
Method : /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/8270C-REV..m
Meth Date : 21-Oct-98 10:40:20 lisa Quant Type: ISTD
Cal Date : 17-OCT-1998 00:00 Cal File: s8230.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	4.279	4.279	(0.338)	402585	50.0000	51
19 N-Nitrosodimethylamine	74	5.362	5.362	(0.423)	653197	50.0000	52
71 Pyridine	79	5.395	5.395	(0.426)	990368	50.0000	54
$ 16 2-Fluorophenol (SUR)	112	10.192	10.192	(0.805)	930865	50.0000	54
$ 17 Phenol-d5 (SUR)	99	12.081	12.081	(0.954)	1168018	50.0000	50
1 Phenol	94	12.107	12.107	(0.956)	1292443	50.0000	52
73 Aniline	93	12.081	12.081	(0.954)	1368061	50.0000	50
20 bis(2-Chloroethyl)ether	93	12.225	12.225	(0.965)	1081103	50.0000	51
2 2-Chlorophenol	128	12.298	12.298	(0.971)	839615	50.0000	54
21 1,3-Dichlorobenzene	146	12.561	12.561	(0.992)	999079	50.0000	50
* 79 1,4-Dichlorobenzene-d4	152	12.666	12.666	(1.000)	511755	40.0000	
22 1,4-Dichlorobenzene	146	12.699	12.699	(1.003)	965469	50.0000	50
74 Benzyl Alcohol	108	12.936	12.936	(1.021)	661856	50.0000	52
23 1,2-Dichlorobenzene	146	12.956	12.956	(1.023)	949771	50.0000	52

304061

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8305.d
Report Date: 09-Nov-1998 10:52

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	3 2-Methylphenol	108	13.146	13.146	(1.038)	846070	50.0000	51
	24 bis(2-chloroisopropyl)ether	45	13.160	13.160	(1.039)	1138474	50.0000	52(M)
	4 4-Methylphenol	108	13.410	13.410	(1.059)	801665	50.0000	53
	25 N-Nitroso-di-n-propylamine	70	13.397	13.397	(1.058)	554364	50.0000	53
	104 Acetophenone	105	13.383	13.383	(1.057)	1212227	50.0000	52
	26 Hexachloroethane	117	13.542	13.542	(1.069)	404689	50.0000	52
$	76 Nitrobenzene-d5 (SUR)	82	13.640	13.640	(0.918)	957590	50.0000	51
	27 Nitrobenzene	77	13.680	13.680	(0.921)	1119817	50.0000	47
	107 N,N-Dimethylaniline	120	13.680	13.680	(1.080)	1146475	50.0000	50
	28 Isophorone	82	14.087	14.087	(0.948)	1915794	50.0000	50
	5 2-Nitrophenol	139	14.212	14.212	(0.957)	586128	50.0000	52
	6 2,4-Dimethylphenol	122	14.298	14.298	(0.963)	774181	50.0000	50
	15 Benzoic Acid	122	14.548	14.548	(0.980)	516004	50.0000	61
	29 bis(2-Chloroethoxy)methane	93	14.450	14.450	(0.973)	1072122	50.0000	48
	7 2,4-Dichlorophenol	162	14.634	14.634	(0.985)	799742	50.0000	50
	30 1,2,4-Trichlorobenzene	180	14.760	14.760	(0.994)	755423	50.0000	47
*	80 Naphthalene-d8	136	14.852	14.852	(1.000)	1773563	40.0000	
	31 Naphthalene	128	14.892	14.892	(1.003)	2111189	50.0000	48
	32 4-Chloroaniline	127	14.985	14.985	(1.009)	1024986	50.0000	49
	33 Hexachlorobutadiene	225	15.084	15.084	(1.016)	307976	50.0000	48
	8 4-Chloro-3-methylphenol	107	15.786	15.786	(1.063)	791190	50.0000	50
	34 2-Methylnaphthalene	142	16.043	16.043	(1.080)	1575622	50.0000	49
	35 Hexachlorocyclopentadiene	237	16.294	16.294	(0.917)	179256	50.0000	48
	9 2,4,6-Trichlorophenol	196	16.511	16.511	(0.929)	474231	50.0000	50
	10 2,4,5-Trichlorophenol	196	16.577	16.577	(0.933)	487877	50.0000	50
$	77 2-Fluorobiphenyl (SUR)	172	16.650	16.650	(0.937)	1730959	50.0000	50
	102 Diphenyl	154	16.815	16.815	(0.946)	1981657	50.0000	49
	36 2-Chloronaphthalene	162	16.855	16.855	(0.948)	1604083	50.0000	50
	103 Diphenyl Ether	170	16.987	16.987	(0.956)	1088379	50.0000	48
	37 2-Nitroaniline	65	17.027	17.027	(0.958)	493505	50.0000	52
	38 Dimethylphthalate	163	17.317	17.317	(0.974)	1999761	50.0000	49
	40 2,6-Dinitrotoluene	165	17.429	17.429	(0.981)	521402	50.0000	51
	39 Acenaphthylene	152	17.541	17.541	(0.987)	2587670	50.0000	50
	41 3-Nitroaniline	138	17.699	17.699	(0.996)	388198	50.0000	48
*	82 Acenaphthene-d10	164	17.772	17.772	(1.000)	1101224	40.0000	
	42 Acenaphthene	153	17.832	17.832	(1.003)	1517628	50.0000	48
	11 2,4-Dinitrophenol	184	17.885	17.885	(1.006)	617244	80.0000	81
	12 4-Nitrophenol	65	17.997	17.997	(1.013)	486554	80.0000	81
	44 2,4-Dinitrotoluene	165	18.096	18.096	(1.018)	702895	50.0000	52
	43 Dibenzofuran	168	18.116	18.116	(1.019)	2209188	50.0000	50
	45 Diethylphthalate	149	18.479	18.479	(1.040)	1979492	50.0000	48
	46 4-Chlorophenyl-phenylether	204	18.664	18.664	(1.050)	617572	50.0000	50
	47 Fluorene	166	18.684	18.684	(1.051)	1593906	50.0000	47
	48 4-Nitroaniline	138	18.737	18.737	(1.054)	554806	50.0000	51
	13 4,6-Dinitro-2-methylphenol	198	18.776	18.776	(0.928)	595714	80.0000	82
	49 N-Nitrosodiphenylamine	169	18.869	18.869	(0.933)	1239081	50.0000	48
	75 1,2-Diphenylhydrazine	77	18.936	18.936	(0.936)	1866838	50.0000	49

304062

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8305.d
Report Date: 09-Nov-1998 10:52

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 18 2,4,6-Tribromophenol (SUR)	330	19.081	19.081	(1.074)	329092	50.0000	49
50 4-Bromophenyl-phenylether	248	19.477	19.477	(0.963)	412850	50.0000	50
51 Hexachlorobenzene	284	19.589	19.589	(0.968)	503974	50.0000	50
14 Pentachlorophenol	266	19.912	19.912	(0.984)	480507	80.0000	82
* 83 Phenanthrene-d10	188	20.229	20.229	(1.000)	1579058	40.0000	
52 Phenanthrene	178	20.269	20.269	(1.002)	2329261	50.0000	48
53 Anthracene	178	20.355	20.355	(1.006)	2468016	50.0000	50
54 Carbazole	167	20.619	20.619	(1.019)	2563663	50.0000	49
55 Di-n-butylphthalate	149	21.158	21.158	(1.046)	3386990	50.0000	49
56 Fluoranthene	202	22.230	22.230	(1.099)	2141566	50.0000	50
58 Benzidine	184	22.441	22.441	(1.109)	2162981	80.0000	70
57 Pyrene	202	22.614	22.614	(0.919)	2127601	50.0000	52
$ 78 Terphenyl-d14 (SUR)	244	22.845	22.845	(0.929)	1449678	50.0000	52
59 Butylbenzylphthalate	149	23.636	23.636	(0.961)	1451730	50.0000	47
60 3,3'-Dichlorobenzidine	252	24.526	24.526	(0.997)	1197911	80.0000	77
61 Benzo(a)anthracene	228	24.580	24.580	(0.999)	1548654	50.0000	49
63 bis(2-Ethylhexyl)phthalate	149	24.560	24.560	(0.998)	1744828	50.0000	51
* 81 Chrysene-d12	240	24.600	24.600	(1.000)	1014245	40.0000	
62 Chrysene	228	24.647	24.647	(1.002)	1518101	50.0000	49
64 Di-n-octylphthalate	149	25.789	25.789	(0.929)	3362288	50.0000	52
65 Benzo(b)fluoranthene	252	26.758	26.758	(0.964)	1854050	50.0000	47
66 Benzo(k)fluoranthene	252	26.838	26.838	(0.966)	1883615	50.0000	51
67 Benzo(a)pyrene	252	27.617	27.617	(0.995)	1793602	50.0000	49
* 84 Perylene-d12	264	27.769	27.769	(1.000)	1091129	40.0000	
68 Indeno(1,2,3-cd)pyrene	276	31.470	31.470	(1.133)	1786825	50.0000	48
69 Dibenz(a,h)anthracene	278	31.583	31.583	(1.137)	1741120	50.0000	51
70 Benzo(g,h,i)perylene	276	32.651	32.651	(1.176)	1780708	50.0000	48

QC Flag Legend

M - Compound response manually integrated.

304063

Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8305.d
Date : 20-OCT-1998 21:46
Client ID:
Sample Info: SSTD293A

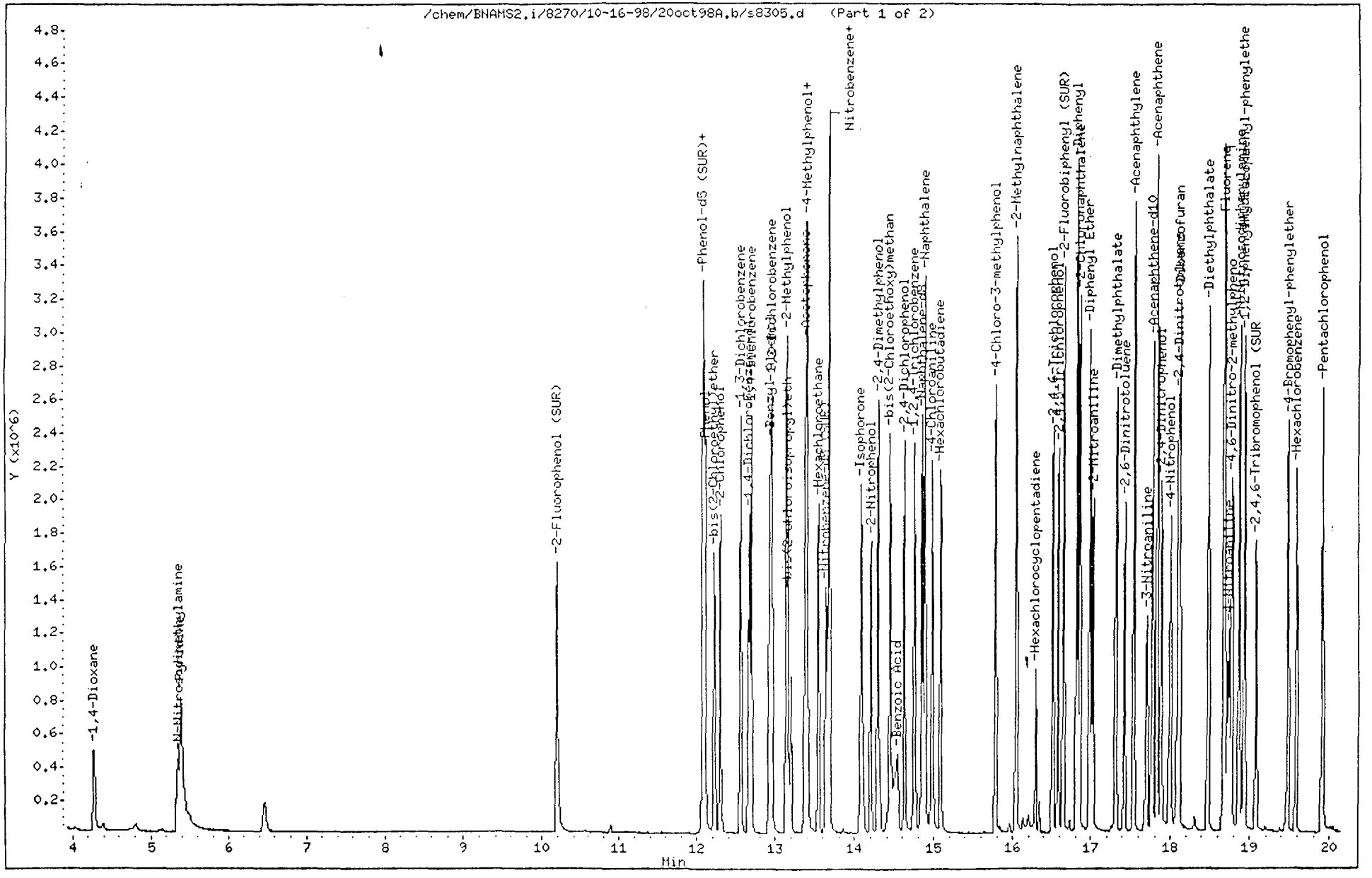
Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

Column phase: DB-5

304064

527



Data File: /chem/BNAMS2.i/8270/10-16-98/20oct98A.b/s8305.d
Date : 20-OCT-1998 21:46
Client ID:
Sample Info: SSTD293A

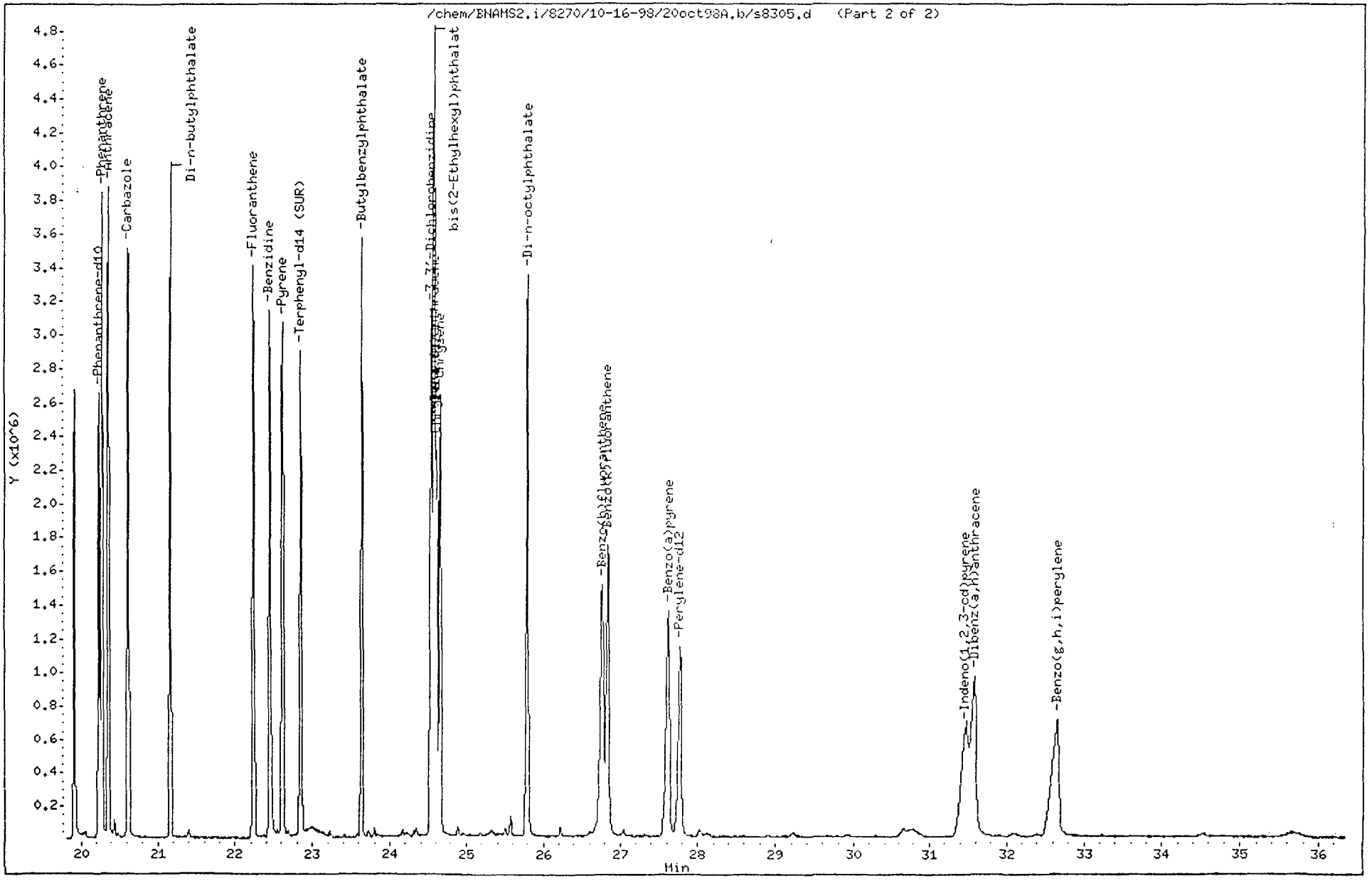
Instrument: BNAMS2.i

Operator: BNAMS 2
Column diameter: 0.25

Column phase: DB-5

304065

528



SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 8270C

Instrument ID: BNAMS5 Calibration Date(s): 10/07/98 10/07/98

Calibration Time(s): 1421 1728

LAB FILE ID: RRF5: Q7343 RRF20: Q7342 RRF50: Q7339
RRF80: Q7341 RRF120: Q7340

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Phenol	2.104	2.276	2.280	2.253	2.146
2-Chlorophenol	1.445	1.580	1.589	1.632	1.617
2-Methylphenol	1.363	1.539	1.506	1.532	1.475
4-Methylphenol	1.438	1.709	1.620	1.656	1.434
2-Nitrophenol	0.208	0.234	0.238	0.243	0.235
2,4-Dimethylphenol	0.290	0.360	0.355	0.348	0.339
2,4-Dichlorophenol	0.259	0.287	0.288	0.300	0.294
4-Chloro-3-methylphenol	0.285	0.317	0.302	0.303	0.283
2,4,6-Trichlorophenol	0.310	0.341	0.357	0.355	0.347
2,4,5-Trichlorophenol	0.306	0.352	0.386	0.379	0.372
2,4-Dinitrophenol	0.102	0.182	0.210	0.218	0.230
4-Nitrophenol	0.179	0.191	0.188	0.192	0.188
4,6-Dinitro-2-methylphenol	0.142	0.162	0.176	0.178	0.181
Pentachlorophenol	0.068	0.094	0.116	0.110	0.116
Benzoic Acid	0.112	0.183	0.188	0.208	0.215
N-Nitrosodimethylamine	0.989	0.994	1.074	1.055	1.064
bis(2-Chloroethyl)ether	1.783	1.718	1.673	1.685	1.610
1,3-Dichlorobenzene	1.679	1.691	1.666	1.680	1.652
1,4-Dichlorobenzene	1.705	1.697	1.691	1.710	1.675
1,2-Dichlorobenzene	1.534	1.685	1.650	1.642	1.579
bis(2-chloroisopropyl)ether	5.064	4.724	4.244	4.364	4.105
N-Nitroso-di-n-propylamine	1.121	1.198	1.090	1.111	0.968
Hexachloroethane	0.580	0.604	0.593	0.594	0.572
Nitrobenzene	0.507	0.490	0.450	0.442	0.422
Isophorone	0.756	0.766	0.724	0.742	0.729
bis(2-Chloroethoxy)methane	0.495	0.422	0.396	0.391	0.370
1,2,4-Trichlorobenzene	0.366	0.294	0.298	0.298	0.300
Naphthalene	1.229	1.162	1.106	1.089	1.021
4-Chloroaniline	0.502	0.521	0.369	0.499	0.478
Hexachlorobutadiene	0.145	0.142	0.141	0.142	0.139
2-Methylnaphthalene	0.766	0.753	0.717	0.704	0.659
Hexachlorocyclopentadiene	0.037	0.073	0.122	0.131	0.147
2-Chloronaphthalene	1.100	1.126	1.144	1.137	1.117
2-Nitroaniline	0.413	0.421	0.414	0.386	0.375
Dimethylphthalate	1.432	1.458	1.442	1.437	1.415
Acenaphthylene	1.915	2.019	2.024	1.991	1.908
2,6-Dinitrotoluene	0.331	0.340	0.355	0.355	0.349
3-Nitroaniline	0.386	0.275	0.268	0.284	0.272
Acenaphthene	1.262	1.247	1.231	1.190	1.138

304066

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 10/07/98 10/07/98

Calibration Time(s): 1421 1728

LAB FILE ID: RRF5: Q7343 RRF20: Q7342 RRF50: Q7339
RRF80: Q7341 RRF120: Q7340

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Dibenzofuran	1.710	1.723	1.642	1.611	1.526
2,4-Dinitrotoluene	0.521	0.503	0.489	0.486	0.473
Diethylphthalate	1.721	1.508	1.453	1.442	1.369
4-Chlorophenyl-phenylether	0.580	0.559	0.549	0.536	0.495
Fluorene	1.407	1.392	1.338	1.302	1.181
4-Nitroaniline	0.428	0.430	0.405	0.426	0.416
N-Nitrosodiphenylamine	0.654	0.582	0.593	0.595	0.584
4-Bromophenyl-phenylether	0.226	0.212	0.220	0.216	0.208
Hexachlorobenzene	0.270	0.240	0.243	0.233	0.227
Phenanthrene	1.255	1.189	1.191	1.175	1.134
Anthracene	1.192	1.263	1.286	1.229	1.199
Carbazole	1.255	1.261	1.284	1.235	1.211
Di-n-butylphthalate	1.723	1.694	1.721	1.672	1.586
Fluoranthene	1.243	1.194	1.188	1.162	1.133
Pyrene	1.385	1.433	1.389	1.370	1.347
Benzidine	0.622	0.691	0.575	0.600	0.549
Butylbenzylphthalate	0.912	0.902	0.885	0.872	0.843
3,3'-Dichlorobenzidine	0.534	0.536	0.530	0.512	0.486
Benzo(a)anthracene	1.585	1.397	1.324	1.279	1.205
Chrysene	1.312	1.370	1.350	1.303	1.300
bis(2-Ethylhexyl)phthalate	1.132	1.324	1.180	1.050	0.880
Di-n-octylphthalate	2.128	2.239	2.257	2.192	2.113
Benzo(b)fluoranthene	1.428	1.363	1.407	1.395	1.558
Benzo(k)fluoranthene	1.473	1.515	1.545	1.507	1.288
Benzo(a)pyrene	1.320	1.330	1.364	1.331	1.306
Indeno(1,2,3-cd)pyrene	1.513	1.384	1.420	1.428	1.411
Dibenz(a,h)anthracene	1.308	1.408	1.387	1.429	1.344
Benzo(g,h,i)perylene	1.326	1.434	1.431	1.429	1.368
Pyridine	1.433	1.595	1.645	1.638	1.580
Aniline	2.479	2.356	2.070	2.308	2.213
Benzyl Alcohol	1.074	1.211	1.108	1.124	1.096
1,2-Diphenylhydrazine	1.040	0.909	0.892	0.860	0.840
Diphenyl	1.524	1.514	1.484	1.432	1.342
Diphenyl Ether	0.804	0.756	0.767	0.758	0.742
Acetophenone	2.171	2.213	2.050	2.130	1.982
1,4-Dioxane					
N,N-Dimethylaniline	2.516	2.689	2.493	2.468	2.312
2-Fluorophenol (SUR)	1.313	1.395	1.423	1.444	1.480

304067

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 10/07/98 10/07/98

Calibration Time(s): 1421 1728

LAB FILE ID: RRF5: Q7343 RRF20: Q7342 RRF50: Q7339
RRF80: Q7341 RRF120: Q7340

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Phenol-d5 (SUR)	1.838	2.092	1.966	2.022	1.926
2,4,6-Tribromophenol (SUR)	0.181	0.201	0.204	0.202	0.200
Nitrobenzene-d5 (SUR)	0.342	0.359	0.342	0.347	0.327
2-Fluorobiphenyl (SUR)	1.315	1.300	1.317	1.305	1.264
Terphenyl-d14 (SUR)	1.063	1.099	1.059	1.017	0.999

304068

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 10/07/98 10/07/98

Calibration Time(s): 1421 1728

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol	AVRG	2.21200182	3.7*
2-Chlorophenol	AVRG	1.57272317	4.7*
2-Methylphenol	AVRG	1.48303035	4.8*
4-Methylphenol	AVRG	1.57150160	8.1*
2-Nitrophenol	AVRG	0.23170343	5.8*
2,4-Dimethylphenol	AVRG	0.33861074	8.2*
2,4-Dichlorophenol	AVRG	0.28567925	5.5*
4-Chloro-3-methylphenol	AVRG	0.29790341	4.7*
2,4,6-Trichlorophenol	AVRG	0.34209109	5.5*
2,4,5-Trichlorophenol	AVRG	0.35904515	8.9*
2,4-Dinitrophenol	AVRG	0.18845877	27.4**
4-Nitrophenol	AVRG	0.18752247	2.8**
4,6-Dinitro-2-methylphenol	AVRG	0.16807392	9.6*
Pentachlorophenol	AVRG	0.10096141	20.1*
Benzoic Acid	AVRG	0.18112922	22.7*
N-Nitrosodimethylamine	AVRG	1.03514676	3.9*
bis(2-Chloroethyl)ether	AVRG	1.69363128	3.8*
1,3-Dichlorobenzene	AVRG	1.67334611	0.9*
1,4-Dichlorobenzene	AVRG	1.69584461	0.8*
1,2-Dichlorobenzene	AVRG	1.61792382	3.7*
bis(2-chloroisopropyl)ether	AVRG	4.50038343	8.7*
N-Nitroso-di-n-propylamine	AVRG	1.09760150	7.6**
Hexachloroethane	AVRG	0.58881495	2.1*
Nitrobenzene	AVRG	0.46232601	7.6*
Isophorone	AVRG	0.74339689	2.4*
bis(2-Chloroethoxy)methane	AVRG	0.41470079	11.7*
1,2,4-Trichlorobenzene	AVRG	0.31137713	9.9*
Naphthalene	AVRG	1.12142119	7.0*
4-Chloroaniline	AVRG	0.47387525	12.7*
Hexachlorobutadiene	AVRG	0.14189183	1.4*
2-Methylnaphthalene	AVRG	0.71960943	5.9*
Hexachlorocyclopentadiene	AVRG	0.10208559	44.6**
2-Chloronaphthalene	AVRG	1.12498992	1.5*
2-Nitroaniline	AVRG	0.40175191	5.0*
Dimethylphthalate	AVRG	1.43679935	1.1*
Acenaphthylene	AVRG	1.97144913	2.8*
2,6-Dinitrotoluene	AVRG	0.34638740	3.0*
3-Nitroaniline	AVRG	0.29713693	16.8*
Acenaphthene	AVRG	1.21333867	4.1*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304069

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS5

Calibration Date(s): 10/07/98 10/07/98

Calibration Time(s): 1421 1728

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Dibenzofuran	AVRG	1.64238257	4.9*
2,4-Dinitrotoluene	AVRG	0.49453661	3.7*
Diethylphthalate	AVRG	1.49844159	8.9*
4-Chlorophenyl-phenylether	AVRG	0.54363707	5.8*
Fluorene	AVRG	1.32393961	6.8*
4-Nitroaniline	AVRG	0.42108670	2.5*
N-Nitrosodiphenylamine	AVRG	0.60163701	5.0*
4-Bromophenyl-phenylether	AVRG	0.21609829	3.2*
Hexachlorobenzene	AVRG	0.24275327	6.8*
Phenanthrene	AVRG	1.18892547	3.7*
Anthracene	AVRG	1.23379273	3.3*
Carbazole	AVRG	1.24928533	2.2*
Di-n-butylphthalate	AVRG	1.67950661	3.3*
Fluoranthene	AVRG	1.18386497	3.4*
Pyrene	AVRG	1.38468201	2.3*
Benzidine	AVRG	0.60750154	8.9*
Butylbenzylphthalate	AVRG	0.88297328	3.0*
3,3'-Dichlorobenzidine	AVRG	0.51950588	4.0*
Benzo(a)anthracene	AVRG	1.35787733	10.7*
Chrysene	AVRG	1.32714237	2.4*
bis(2-Ethylhexyl)phthalate	AVRG	1.11325600	14.7*
Di-n-octylphthalate	AVRG	2.18581417	3.0*
Benzo(b)fluoranthene	AVRG	1.43045272	5.2*
Benzo(k)fluoranthene	AVRG	1.46559100	7.0*
Benzo(a)pyrene	AVRG	1.33027117	1.6*
Indeno(1,2,3-cd)pyrene	AVRG	1.43119180	3.4*
Dibenz(a,h)anthracene	AVRG	1.37528440	3.6*
Benzo(g,h,i)perylene	AVRG	1.39755909	3.5*
Pyridine	AVRG	1.57843117	5.4*
Aniline	AVRG	2.28530419	6.7*
Benzyl Alcohol	AVRG	1.12253996	4.7*
1,2-Diphenylhydrazine	AVRG	0.90836419	8.6*
Diphenyl	AVRG	1.45926333	5.1*
Diphenyl Ether	AVRG	0.76534447	3.1*
Acetophenone	AVRG	2.10913966	4.4**
1,4-Dioxane	AVRG		
N,N-Dimethylaniline	AVRG	2.49556152	5.4**
2-Fluorophenol (SUR)	AVRG	1.41122106	4.4*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304070

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS5 Calibration Date(s): 10/07/98 10/07/98

Calibration Time(s): 1421 1728

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol-d5 (SUR)	AVRG	1.96888242	4.9*
2,4,6-Tribromophenol (SUR)	AVRG	0.19764112	4.8*
Nitrobenzene-d5 (SUR)	AVRG	0.34359466	3.3*
2-Fluorobiphenyl (SUR)	AVRG	1.30032115	1.6*
Terphenyl-d14 (SUR)	AVRG	1.04757698	3.8*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304071

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7340.d
Report Date: 07-Oct-98 18:33:18

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7340.d
Lab Smp Id: QSTD120
Inj Date : 07-OCT-98 15:08:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : QSTD120
Misc Info : 120 ppm std.
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/07oct98.b/8270C-REV..m
Meth Date : 07-Oct-98 18:19:07 ctp Quant Type: ISTD
Cal Date : 07-OCT-98 16:41:00 Cal File: q7342.d
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
19 N-Nitrosodimethylamine	74	4.845	4.790	(0.390)	1218674	120	120(AH)
71 Pyridine	79	4.823	4.869	(0.389)	1811089	120	120
$ 16 2-Fluorophenol (SUR)	112	9.915	9.931	(0.799)	1696147	120	120(A)
$ 17 Phenol-d5 (SUR)	99	11.866	11.847	(0.956)	2206700	120	120
1 Phenol	94	11.902	11.876	(0.959)	2458948	120	120(H)
73 Aniline	93	11.837	11.825	(0.954)	2535535	120	120
20 bis(2-Chloroethyl)ether	93	11.996	11.969	(0.966)	1844469	120	120
2 2-Chlorophenol	128	12.061	12.056	(0.972)	1853222	120	120(A)
21 1,3-Dichlorobenzene	146	12.313	12.301	(0.992)	1892619	120	120
* 79 1,4-Dichlorobenzene-d4	152	12.414	12.409	(1.000)	381963	40	
22 1,4-Dichlorobenzene	146	12.450	12.438	(1.003)	1919635	120	120
74 Benzyl Alcohol	108	12.730	12.690	(1.026)	1255520	120	120
23 1,2-Dichlorobenzene	146	12.709	12.704	(1.024)	1809884	120	120
3 2-Methylphenol	108	12.946	12.913	(1.043)	1689931	120	120
24 bis(2-chloroisopropyl)ether	45	12.932	12.920	(1.042)	4704393	120	110(M)

304072

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7340.d
Report Date: 07-Oct-98 18:33:18

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
4 4-Methylphenol	108	13.213	13.186	(1.064)	1643759	120	110
25 N-Nitroso-di-n-propylamine	70	13.198	13.143	(1.063)	1108908	120	110
104 Acetophenone	105	13.170	13.129	(1.061)	2271132	120	110
26 Hexachloroethane	117	13.292	13.280	(1.071)	655826	120	120
$ 76 Nitrobenzene-d5 (SUR)	82	13.422	13.388	(0.918)	1661205	120	110
27 Nitrobenzene	77	13.465	13.424	(0.921)	2142410	120	110
107 N,N-Dimethylaniline	120	13.451	13.424	(1.084)	2649872	120	110
28 Isophorone	82	13.883	13.827	(0.950)	3697657	120	120
5 2-Nitrophenol	139	13.991	13.971	(0.957)	1191863	120	120
6 2,4-Dimethylphenol	122	14.099	14.065	(0.965)	1722122	120	120
15 Benzoic Acid	122	14.459	14.223	(0.989)	1092277	120	130(AM)
29 bis(2-Chloroethoxy)methane	93	14.235	14.209	(0.974)	1876825	120	110
7 2,4-Dichlorophenol	162	14.415	14.411	(0.986)	1489650	120	120(A)
30 1,2,4-Trichlorobenzene	180	14.524	14.511	(0.994)	1520699	120	120(A)
* 80 Naphthalene-d8	136	14.617	14.605	(1.000)	1691002	40	
31 Naphthalene	128	14.660	14.641	(1.003)	5178531	120	110
32 4-Chloroaniline	127	14.768	14.749	(1.010)	2424612	120	120(A)
33 Hexachlorobutadiene	225	14.855	14.843	(1.016)	705992	120	120
8 4-Chloro-3-methylphenol	107	15.589	15.585	(1.067)	1433641	120	110
34 2-Methylnaphthalene	142	15.820	15.808	(1.082)	3341326	120	110
35 Hexachlorocyclopentadiene	237	16.065	16.060	(0.915)	423795	120	150(A)
9 2,4,6-Trichlorophenol	196	16.302	16.290	(0.929)	999176	120	120
10 2,4,5-Trichlorophenol	196	16.374	16.377	(0.933)	1071044	120	120(A)
$ 77 2-Fluorobiphenyl (SUR)	172	16.439	16.413	(0.936)	3637757	120	120
102 Diphenyl	154	16.612	16.585	(0.946)	3862712	120	110
36 2-Chloronaphthalene	162	16.641	16.622	(0.948)	3215097	120	120
103 Diphenyl Ether	170	16.778	16.758	(0.956)	2133832	120	120
37 2-Nitroaniline	65	16.835	16.802	(0.959)	1077849	120	110
38 Dimethylphthalate	163	17.123	17.090	(0.975)	4072227	120	120
40 2,6-Dinitrotoluene	165	17.246	17.205	(0.982)	1005234	120	120
39 Acenaphthylene	152	17.332	17.306	(0.987)	5488682	120	120
41 3-Nitroaniline	138	17.519	17.486	(0.998)	782115	120	120
* 82 Acenaphthene-d10	164	17.555	17.543	(1.000)	959091	40	
42 Acenaphthene	153	17.620	17.594	(1.004)	3273301	120	110
11 2,4-Dinitrophenol	184	17.714	17.680	(1.009)	660664	120	130(A)
12 4-Nitrophenol	65	17.843	17.810	(1.016)	541362	120	120
44 2,4-Dinitrotoluene	165	17.923	17.889	(1.021)	1361679	120	120
43 Dibenzofuran	168	17.908	17.882	(1.020)	4391985	120	110
45 Diethylphthalate	149	18.304	18.256	(1.043)	3939484	120	110
46 4-Chlorophenyl-phenylether	204	18.470	18.451	(1.052)	1424531	120	110
47 Fluorene	166	18.484	18.451	(1.053)	3398896	120	110
48 4-Nitroaniline	138	18.592	18.501	(1.059)	1196701	120	120(H)
13 4,6-Dinitro-2-methylphenol	198	18.621	18.566	(0.930)	785441	120	120(A)
49 N-Nitrosodiphenylamine	169	18.686	18.645	(0.933)	2534065	120	120
75 1,2-Diphenylhydrazine	77	18.744	18.717	(0.936)	3648237	120	120(M)
$ 18 2,4,6-Tribromophenol (SUR)	330	18.888	18.861	(1.076)	574130	120	120
50 4-Bromophenyl-phenylether	248	19.284	19.257	(0.963)	901957	120	120

304073

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7340.d
Report Date: 07-Oct-98 18:33:18

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
51 Hexachlorobenzene	284	19.399	19.365	(0.969)	986260	120	120
14 Pentachlorophenol	266	19.723	19.711	(0.985)	505088	120	130(A)
* 83 Phenanthrene-d10	188	20.025	20.021	(1.000)	1447088	40	
52 Phenanthrene	178	20.083	20.057	(1.003)	4923315	120	120
53 Anthracene	178	20.169	20.136	(1.007)	5206837	120	120
54 Carbazole	167	20.443	20.409	(1.021)	5257301	120	120
55 Di-n-butylphthalate	149	20.990	20.971	(1.048)	6887554	120	110
56 Fluoranthene	202	22.056	22.030	(1.101)	4918158	120	120
58 Benzidine	184	22.272	22.246	(1.112)	2382314	120	110
57 Pyrene	202	22.438	22.404	(0.918)	5146500	120	120
$ 78 Terphenyl-d14 (SUR)	244	22.675	22.649	(0.928)	3819218	120	110
59 Butylbenzylphthalate	149	23.482	23.456	(0.961)	3222104	120	120
60 3,3'-Dichlorobenzidine	252	24.382	24.334	(0.998)	1857169	120	110
61 Benzo(a)anthracene	228	24.425	24.385	(0.999)	4603668	120	110
63 bis(2-Ethylhexyl)phthalate	149	24.411	24.392	(0.999)	3362472	120	95
* 81 Chrysene-d12	240	24.440	24.406	(1.000)	1273772	40	
62 Chrysene	228	24.497	24.442	(1.002)	4967732	120	120
64 Di-n-octylphthalate	149	25.606	25.566	(0.930)	8318572	120	120
65 Benzo(b)fluoranthene	252	26.579	26.495	(0.966)	6132383	120	130(A)
66 Benzo(k)fluoranthene	252	26.643	26.559	(0.968)	5070882	120	100(M)
67 Benzo(a)pyrene	252	27.407	27.330	(0.996)	5143442	120	120
* 84 Perylene-d12	264	27.522	27.488	(1.000)	1312286	40	
68 Indeno(1,2,3-cd)pyrene	276	31.295	31.103	(1.137)	5554959	120	120(AM)
69 Dibenz(a,h)anthracene	278	31.375	31.183	(1.140)	5289690	120	120
70 Benzo(g,h,i)perylene	276	32.440	32.205	(1.179)	5384348	120	120(H)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304074

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7340.d
Date : 07-OCT-98 15:08:00
Client ID:
Sample Info: QSTD120

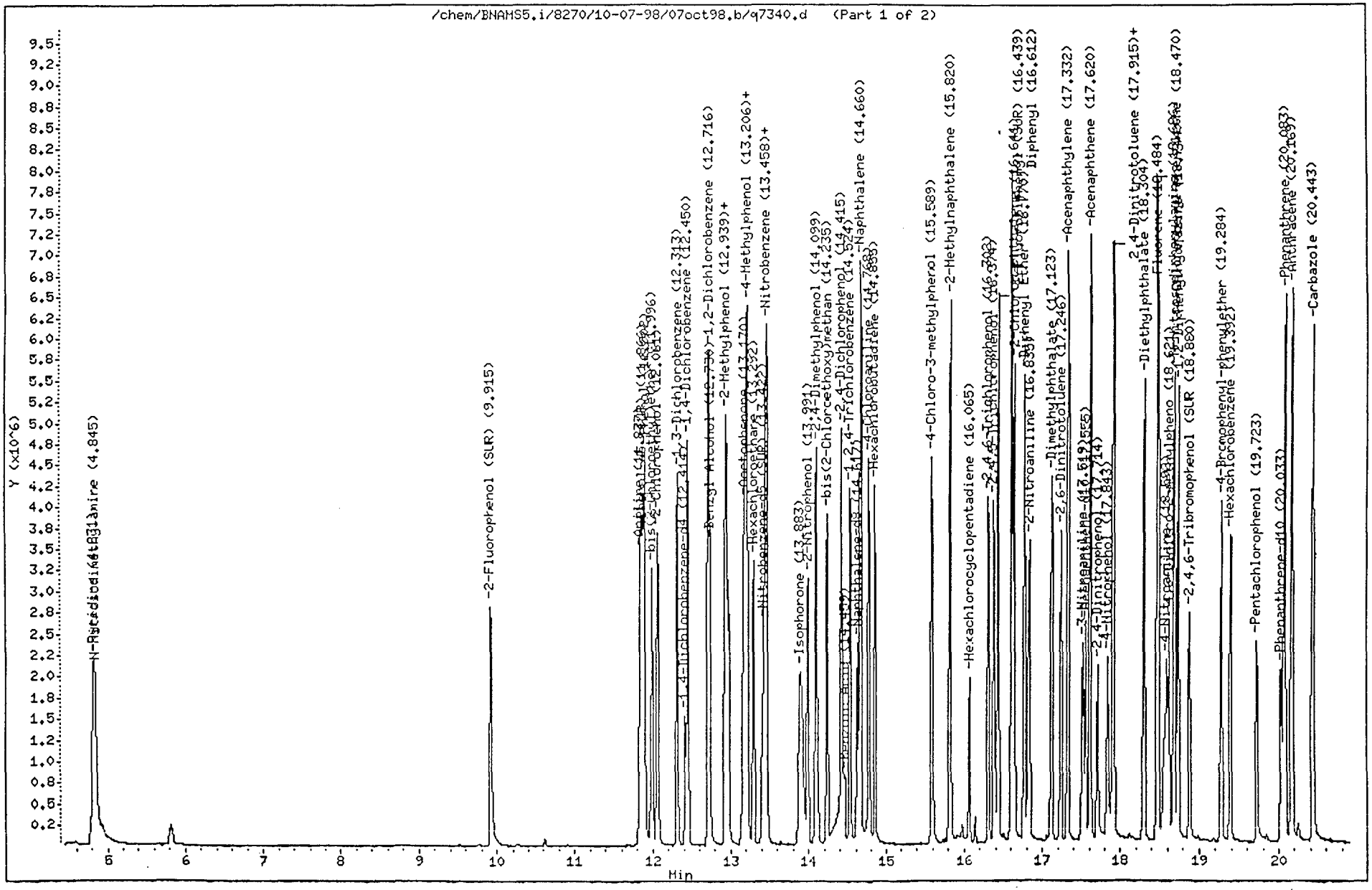
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS3
Column diameter: 0.25

304075

538



Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7340.d
Date : 07-OCT-98 15:08:00
Client ID:
Sample Info: QSTD120

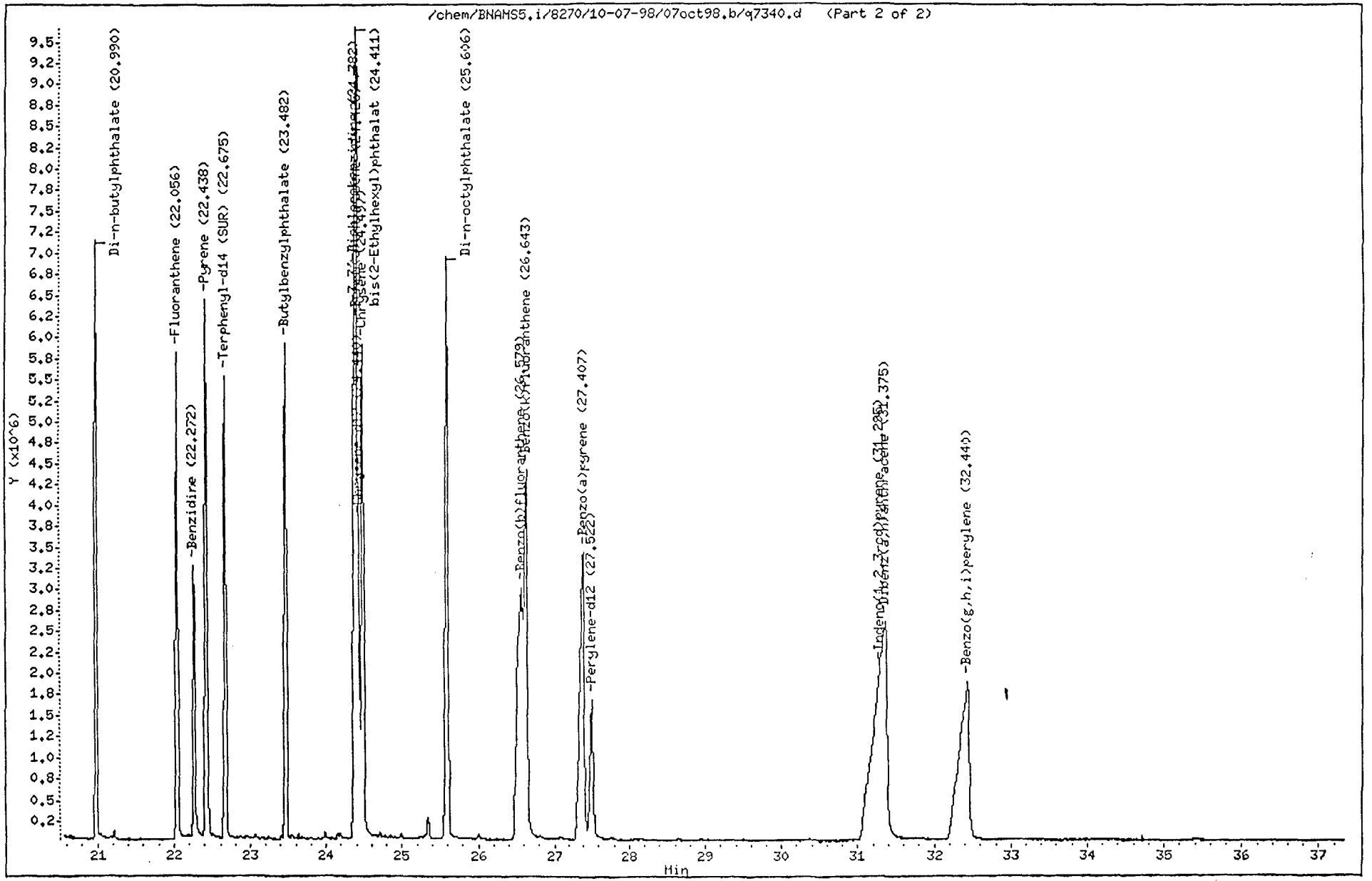
Instrument: BNAMS5.i

Operator: BNAMS3

304076

Column phase: DB-5

Column diameter: 0.25



539

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7341.d
Report Date: 07-Oct-98 16:42:10

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7341.d
Lab Smp Id: QSTD080
Inj Date : 07-OCT-98 15:54:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : QSTD080
Misc Info : 80 ppm std.
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/07oct98.b/8270C-REV..m
Meth Date : 07-Oct-98 16:33:21 Quant Type: ISTD
Cal Date : 07-OCT-98 15:54:00 Cal File: q7341.d
Als bottle: 3 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
19 N-Nitrosodimethylamine	74	4.812	4.812	(0.388)	733824	80	79(M)
71 Pyridine	79	4.812	4.812	(0.388)	1138889	80	80
$ 16 2-Fluorophenol (SUR)	112	9.911	9.911	(0.798)	1004435	80	80
$ 17 Phenol-d5 (SUR)	99	11.855	11.855	(0.955)	1406518	80	81
1 Phenol	94	11.884	11.884	(0.957)	1567105	80	80
73 Aniline	93	11.833	11.833	(0.953)	1605049	80	84
20 bis(2-Chloroethyl)ether	93	11.984	11.984	(0.965)	1171801	80	80
2 2-Chlorophenol	128	12.056	12.056	(0.971)	1135020	80	81
21 1,3-Dichlorobenzene	146	12.309	12.309	(0.991)	1168277	80	80
* 79 1,4-Dichlorobenzene-d4	152	12.417	12.417	(1.000)	347721	40	
22 1,4-Dichlorobenzene	146	12.445	12.445	(1.002)	1189559	80	80
74 Benzyl Alcohol	108	12.712	12.712	(1.024)	781713	80	80
23 1,2-Dichlorobenzene	146	12.705	12.705	(1.023)	1141973	80	80
3 2-Methylphenol	108	12.928	12.928	(1.041)	1065534	80	81
24 bis(2-chloroisopropyl)ether	45	12.913	12.913	(1.040)	3035300	80	81(M)

304077

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7341.d
Report Date: 07-Oct-98 16:42:10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
4	4-Methylphenol	108	13.194	13.194	(1.063)	1151614	80	81
25	N-Nitroso-di-n-propylamine	70	13.180	13.180	(1.061)	772925	80	81
104	Acetophenone	105	13.158	13.158	(1.060)	1481236	80	82
26	Hexachloroethane	117	13.288	13.288	(1.070)	413378	80	80
$ 76	Nitrobenzene-d5 (SUR)	82	13.410	13.410	(0.918)	1083506	80	80
27	Nitrobenzene	77	13.454	13.454	(0.921)	1382316	80	79
107	N,N-Dimethylaniline	120	13.446	13.446	(1.083)	1716012	80	80
28	Isophorone	82	13.864	13.864	(0.949)	2317937	80	81
5	2-Nitrophenol	139	13.979	13.979	(0.957)	760762	80	81
6	2,4-Dimethylphenol	122	14.087	14.087	(0.964)	1086995	80	79
15	Benzoic Acid	122	14.411	14.411	(0.986)	648826	80	84
29	bis(2-Chloroethoxy)methane	93	14.224	14.224	(0.973)	1222777	80	80
7	2,4-Dichlorophenol	162	14.411	14.411	(0.986)	937942	80	82
30	1,2,4-Trichlorobenzene	180	14.519	14.519	(0.994)	932905	80	80
* 80	Naphthalene-d8	136	14.613	14.613	(1.000)	1562786	40	
31	Naphthalene	128	14.656	14.656	(1.003)	3404498	80	79
32	4-Chloroaniline	127	14.757	14.757	(1.010)	1560404	80	92
33	Hexachlorobutadiene	225	14.851	14.851	(1.016)	443336	80	80
8	4-Chloro-3-methylphenol	107	15.585	15.585	(1.067)	948121	80	80
34	2-Methylnaphthalene	142	15.816	15.816	(1.082)	2201134	80	79
35	Hexachlorocyclopentadiene	237	16.060	16.060	(0.915)	236962	80	83
9	2,4,6-Trichlorophenol	196	16.298	16.298	(0.929)	642081	80	80
10	2,4,5-Trichlorophenol	196	16.370	16.370	(0.933)	685906	80	79
$ 77	2-Fluorobiphenyl (SUR)	172	16.428	16.428	(0.936)	2362307	80	80
102	Diphenyl	154	16.601	16.601	(0.946)	2591382	80	78
36	2-Chloronaphthalene	162	16.637	16.637	(0.948)	2058040	80	80
103	Diphenyl Ether	170	16.766	16.766	(0.955)	1371911	80	80
37	2-Nitroaniline	65	16.824	16.824	(0.959)	699342	80	77
38	Dimethylphthalate	163	17.112	17.112	(0.975)	2601300	80	80
40	2,6-Dinitrotoluene	165	17.234	17.234	(0.982)	643179	80	80
39	Acenaphthylene	152	17.321	17.321	(0.987)	3604907	80	79
41	3-Nitroaniline	138	17.508	17.508	(0.998)	514736	80	82
* 82	Acenaphthene-d10	164	17.551	17.551	(1.000)	905120	40	
42	Acenaphthene	153	17.616	17.616	(1.004)	2153832	80	79
11	2,4-Dinitrophenol	184	17.702	17.702	(1.009)	494174	100	100
12	4-Nitrophenol	65	17.832	17.832	(1.016)	434967	100	100
44	2,4-Dinitrotoluene	165	17.911	17.911	(1.020)	880308	80	80
43	Dibenzofuran	168	17.904	17.904	(1.020)	2916046	80	79
45	Diethylphthalate	149	18.293	18.293	(1.042)	2610141	80	80
46	4-Chlorophenyl-phenylether	204	18.466	18.466	(1.052)	970012	80	79
47	Fluorene	166	18.473	18.473	(1.053)	2356295	80	79
48	4-Nitroaniline	138	18.559	18.559	(1.057)	771810	80	82
13	4,6-Dinitro-2-methylphenol	198	18.602	18.602	(0.929)	618733	100	100
49	N-Nitrosodiphenylamine	169	18.675	18.675	(0.932)	1650771	80	80
75	1,2-Diphenylhydrazine	77	18.732	18.732	(0.935)	2386526	80	78
$ 18	2,4,6-Tribromophenol (SUR)	330	18.876	18.876	(1.075)	366042	80	80
50	4-Bromophenyl-phenylether	248	19.279	19.279	(0.963)	599095	80	79

304078

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7341.d
Report Date: 07-Oct-98 16:42:10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
51 Hexachlorobenzene	284	19.387	19.387	(0.968)	647544	80	78
14 Pentachlorophenol	266	19.719	19.719	(0.985)	383321	100	98
* 83 Phenanthrene-d10	188	20.028	20.028	(1.000)	1387215	40	
52 Phenanthrene	178	20.072	20.072	(1.002)	3259743	80	79
53 Anthracene	178	20.158	20.158	(1.006)	3409259	80	78
54 Carbazole	167	20.432	20.432	(1.020)	3426232	80	78
55 Di-n-butylphthalate	149	20.986	20.986	(1.048)	4638604	80	79
56 Fluoranthene	202	22.052	22.052	(1.101)	3224694	80	79
58 Benzidine	184	22.268	22.268	(1.112)	2079136	100	100
57 Pyrene	202	22.426	22.426	(0.918)	3372063	80	79
$ 78 Terphenyl-d14 (SUR)	244	22.671	22.671	(0.928)	2503935	80	78
59 Butylbenzylphthalate	149	23.471	23.471	(0.961)	2148132	80	79
60 3,3'-Dichlorobenzidine	252	24.371	24.371	(0.998)	1574912	100	98
61 Benzo(a)anthracene	228	24.414	24.414	(0.999)	3148618	80	79
63 bis(2-Ethylhexyl)phthalate	149	24.407	24.407	(0.999)	2586169	80	75
* 81 Chrysene-d12	240	24.428	24.428	(1.000)	1231125	40	
62 Chrysene	228	24.479	24.479	(1.002)	3209326	80	78
64 Di-n-octylphthalate	149	25.595	25.595	(0.930)	5428138	80	79
65 Benzo(b)fluoranthene	252	26.538	26.538	(0.965)	3455347	80	80
66 Benzo(k)fluoranthene	252	26.618	26.618	(0.968)	3731138	80	79
67 Benzo(a)pyrene	252	27.381	27.381	(0.995)	3294904	80	79
* 84 Perylene-d12	264	27.511	27.511	(1.000)	1238075	40	
68 Indeno(1,2,3-cd)pyrene	276	31.198	31.198	(1.134)	3535857	80	80(M)
69 Dibenz(a,h)anthracene	278	31.313	31.313	(1.138)	3538892	80	81
70 Benzo(g,h,i)perylene	276	32.379	32.379	(1.177)	3538921	80	80

QC Flag Legend

M - Compound response manually integrated.

304079

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7341.d
Date : 07-OCT-98 15:54:00
Client ID:
Sample Info: QSTD080

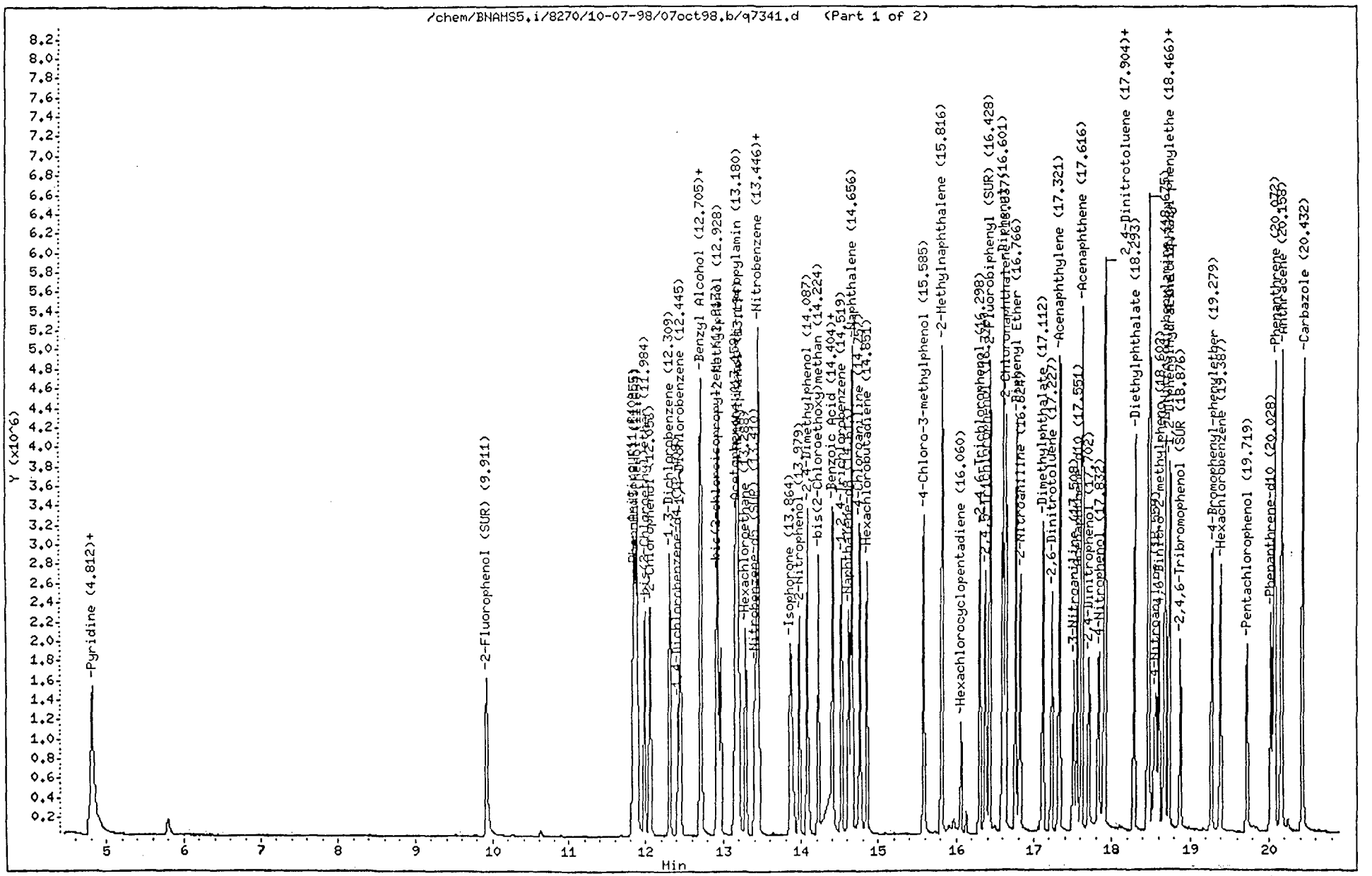
Instrument: BNAMS5.i

Operator: BNAMS3

304080

Column phase: DB-5

Column diameter: 0.25



543

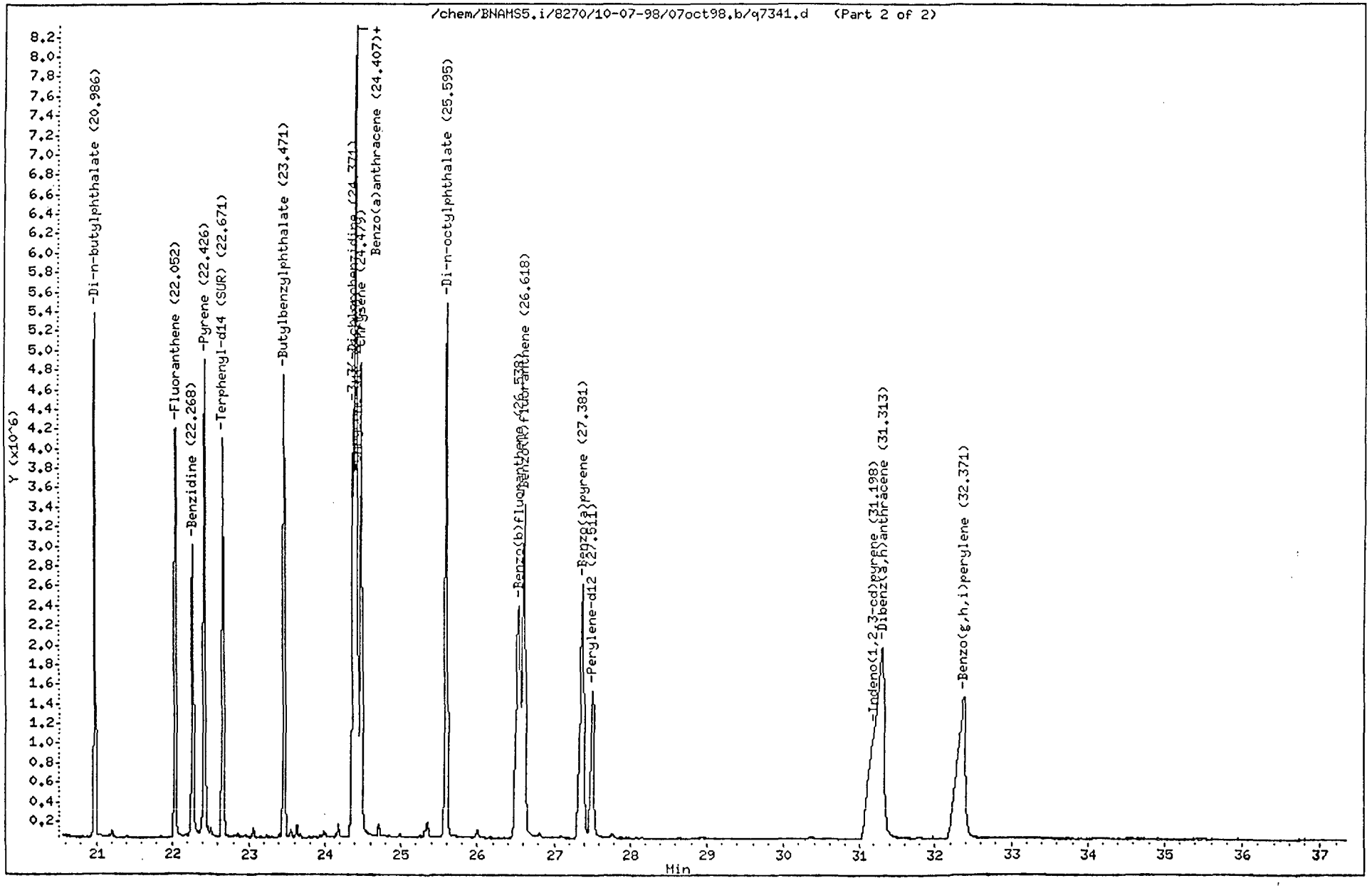
Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7341.d
Date : 07-OCT-98 15:54:00
Client ID:
Sample Info: QSTD080

Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS3
Column diameter: 0.25

304081



Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7339.d
Report Date: 07-Oct-98 15:10:52

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7339.d
Lab Smp Id: QSTD050
Inj Date : 07-OCT-98 14:21:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : QSTD050
Misc Info : 50 ppm std.
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/07oct98.b/8270C-REV..m
Meth Date : 07-Oct-98 15:03:51 lisa Quant Type: ISTD
Cal Date : 07-OCT-98 14:21:00 Cal File: q7339.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)
19 N-Nitrosodimethylamine	74	4.802	4.802	(0.387)	549244	50	50(M)
71 Pyridine	79	4.817	4.817	(0.388)	841314	50	50(M)
$ 16 2-Fluorophenol (SUR)	112	9.915	9.915	(0.799)	727896	50	50
$ 17 Phenol-d5 (SUR)	99	11.852	11.852	(0.955)	1005370	50	50
1 Phenol	94	11.874	11.874	(0.956)	1165948	50	50
73 Aniline	93	11.831	11.831	(0.953)	1058611	50	50
20 bis(2-Chloroethyl)ether	93	11.975	11.975	(0.965)	855390	50	50
2 2-Chlorophenol	128	12.054	12.054	(0.971)	812643	50	50
21 1,3-Dichlorobenzene	146	12.306	12.306	(0.991)	851722	50	50
* 79 1,4-Dichlorobenzene-d4	152	12.414	12.414	(1.000)	409098	40	
22 1,4-Dichlorobenzene	146	12.443	12.443	(1.002)	864865	50	50
74 Benzyl Alcohol	108	12.702	12.702	(1.023)	566483	50	50
23 1,2-Dichlorobenzene	146	12.702	12.702	(1.023)	843597	50	50
3 2-Methylphenol	108	12.918	12.918	(1.041)	770338	50	50
24 bis(2-chloroisopropyl)ether	45	12.925	12.925	(1.041)	2170083	50	50(M)

304082

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7339.d
Report Date: 07-Oct-98 15:10:52

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	4 4-Methylphenol	108	13.185	13.185	(1.062)	828234	50	50
	25 N-Nitroso-di-n-propylamine	70	13.163	13.163	(1.060)	557280	50	50
	104 Acetophenone	105	13.149	13.149	(1.059)	1048427	50	50
	26 Hexachloroethane	117	13.286	13.286	(1.070)	303266	50	50
$	76 Nitrobenzene-d5 (SUR)	82	13.401	13.401	(0.917)	754665	50	50
	27 Nitrobenzene	77	13.444	13.444	(0.920)	991832	50	50
	107 N,N-Dimethylaniline	120	13.437	13.437	(1.082)	1274697	50	50
	28 Isophorone	82	13.854	13.854	(0.948)	1595920	50	50
	5 2-Nitrophenol	139	13.977	13.977	(0.957)	523445	50	50
	6 2,4-Dimethylphenol	122	14.078	14.078	(0.964)	783197	50	50
	15 Benzoic Acid	122	14.366	14.366	(0.983)	415346	50	50
	29 bis(2-Chloroethoxy)methane	93	14.222	14.222	(0.973)	871959	50	50
	7 2,4-Dichlorophenol	162	14.402	14.402	(0.986)	635337	50	50
	30 1,2,4-Trichlorobenzene	180	14.517	14.517	(0.994)	656366	50	50
*	80 Naphthalene-d8	136	14.611	14.611	(1.000)	1762635	40	
	31 Naphthalene	128	14.647	14.647	(1.002)	2437145	50	50
	32 4-Chloroaniline	127	14.755	14.755	(1.010)	814086	50	50
	33 Hexachlorobutadiene	225	14.848	14.848	(1.016)	311661	50	50
	8 4-Chloro-3-methylphenol	107	15.583	15.583	(1.067)	664458	50	50
	34 2-Methylnaphthalene	142	15.813	15.813	(1.082)	1578987	50	50
	35 Hexachlorocyclopentadiene	237	16.058	16.058	(0.915)	147217	50	50
	9 2,4,6-Trichlorophenol	196	16.296	16.296	(0.929)	431957	50	50
	10 2,4,5-Trichlorophenol	196	16.368	16.368	(0.933)	466578	50	50
$	77 2-Fluorobiphenyl (SUR)	172	16.425	16.425	(0.936)	1592497	50	50
	102 Diphenyl	154	16.591	16.591	(0.945)	1794466	50	50
	36 2-Chloronaphthalene	162	16.627	16.627	(0.947)	1383078	50	50
	103 Diphenyl Ether	170	16.764	16.764	(0.955)	927418	50	50
	37 2-Nitroaniline	65	16.814	16.814	(0.958)	500342	50	50
	38 Dimethylphthalate	163	17.109	17.109	(0.975)	1743175	50	50
	40 2,6-Dinitrotoluene	165	17.217	17.217	(0.981)	429492	50	50
	39 Acenaphthylene	152	17.318	17.318	(0.987)	2446939	50	50
	41 3-Nitroaniline	138	17.498	17.498	(0.997)	324736	50	50
*	82 Acenaphthene-d10	164	17.549	17.549	(1.000)	967354	40	
	42 Acenaphthene	153	17.606	17.606	(1.003)	1488247	50	50
	11 2,4-Dinitrophenol	184	17.693	17.693	(1.008)	407056	80	80
	12 4-Nitrophenol	65	17.822	17.822	(1.016)	362810	80	80
	44 2,4-Dinitrotoluene	165	17.902	17.902	(1.020)	591153	50	50
	43 Dibenzofuran	168	17.894	17.894	(1.020)	1984984	50	50
	45 Diethylphthalate	149	18.283	18.283	(1.042)	1756920	50	50
	46 4-Chlorophenyl-phenylether	204	18.456	18.456	(1.052)	663528	50	50
	47 Fluorene	166	18.463	18.463	(1.052)	1618351	50	50
	48 4-Nitroaniline	138	18.543	18.543	(1.057)	489638	50	50
	13 4,6-Dinitro-2-methylphenol	198	18.593	18.593	(0.928)	520588	80	80
	49 N-Nitrosodiphenylamine	169	18.665	18.665	(0.932)	1093568	50	50
	75 1,2-Diphenylhydrazine	77	18.730	18.730	(0.935)	1646041	50	50
$	18 2,4,6-Tribromophenol (SUR)	330	18.867	18.867	(1.075)	246967	50	50
	50 4-Bromophenyl-phenylether	248	19.270	19.270	(0.962)	405316	50	50

304083

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7339.d
Report Date: 07-Oct-98 15:10:52

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
51 Hexachlorobenzene	284	19.378	19.378	(0.968)	448290	50	50
14 Pentachlorophenol	266	19.716	19.716	(0.985)	340977	80	80
* 83 Phenanthrene-d10	188	20.026	20.026	(1.000)	1475774	40	
52 Phenanthrene	178	20.069	20.069	(1.002)	2197699	50	50
53 Anthracene	178	20.156	20.156	(1.006)	2372145	50	50
54 Carbazole	167	20.422	20.422	(1.020)	2368641	50	50
55 Di-n-butylphthalate	149	20.977	20.977	(1.047)	3175673	50	50
56 Fluoranthene	202	22.042	22.042	(1.101)	2190727	50	50
58 Benzidine	184	22.266	22.266	(1.112)	1698265	80	80
57 Pyrene	202	22.417	22.417	(0.918)	2296198	50	50
$ 78 Terphenyl-d14 (SUR)	244	22.662	22.662	(0.928)	1750399	50	50
59 Butylbenzylphthalate	149	23.461	23.461	(0.960)	1463967	50	50
60 3,3'-Dichlorobenzidine	252	24.361	24.361	(0.997)	1401180	80	80
61 Benzo(a)anthracene	228	24.404	24.404	(0.999)	2189136	50	50
63 bis(2-Ethylhexyl)phthalate	149	24.397	24.397	(0.999)	1950321	50	50
* 81 Chrysene-d12	240	24.426	24.426	(1.000)	1322649	40	
62 Chrysene	228	24.469	24.469	(1.002)	2232134	50	50
64 Di-n-octylphthalate	149	25.585	25.585	(0.930)	3638825	50	50
65 Benzo(b)fluoranthene	252	26.522	26.522	(0.964)	2268938	50	50
66 Benzo(k)fluoranthene	252	26.594	26.594	(0.967)	2490595	50	50
67 Benzo(a)pyrene	252	27.357	27.357	(0.995)	2198742	50	50
* 84 Perylene-d12	264	27.501	27.501	(1.000)	1289671	40	
68 Indeno(1,2,3-cd)pyrene	276	31.152	31.152	(1.133)	2289001	50	50(M)
69 Dibenz(a,h)anthracene	278	31.260	31.260	(1.137)	2235702	50	50
70 Benzo(g,h,i)perylene	276	32.319	32.319	(1.175)	2307367	50	50

QC Flag Legend

M - Compound response manually integrated.

304084

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7339.d
Date : 07-OCT-98 14:21:00
Client ID:
Sample Info: QSTD050

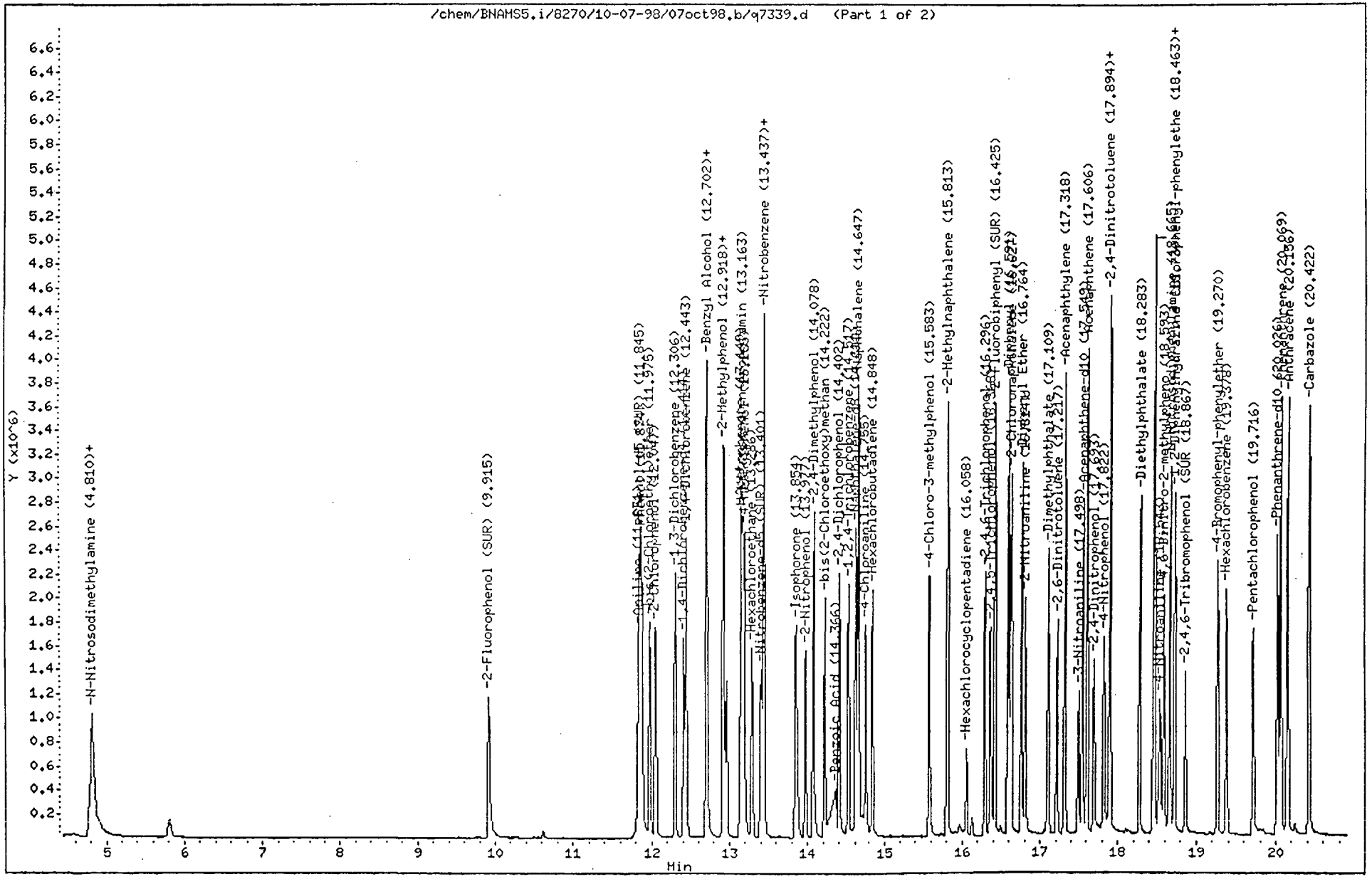
Instrument: BNAMS5.i

Operator: BNAMS3

304085

Column phase: DB-5

Column diameter: 0.25



548

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7339.d
Date : 07-OCT-98 14:21:00
Client ID:
Sample Info: QSTD050

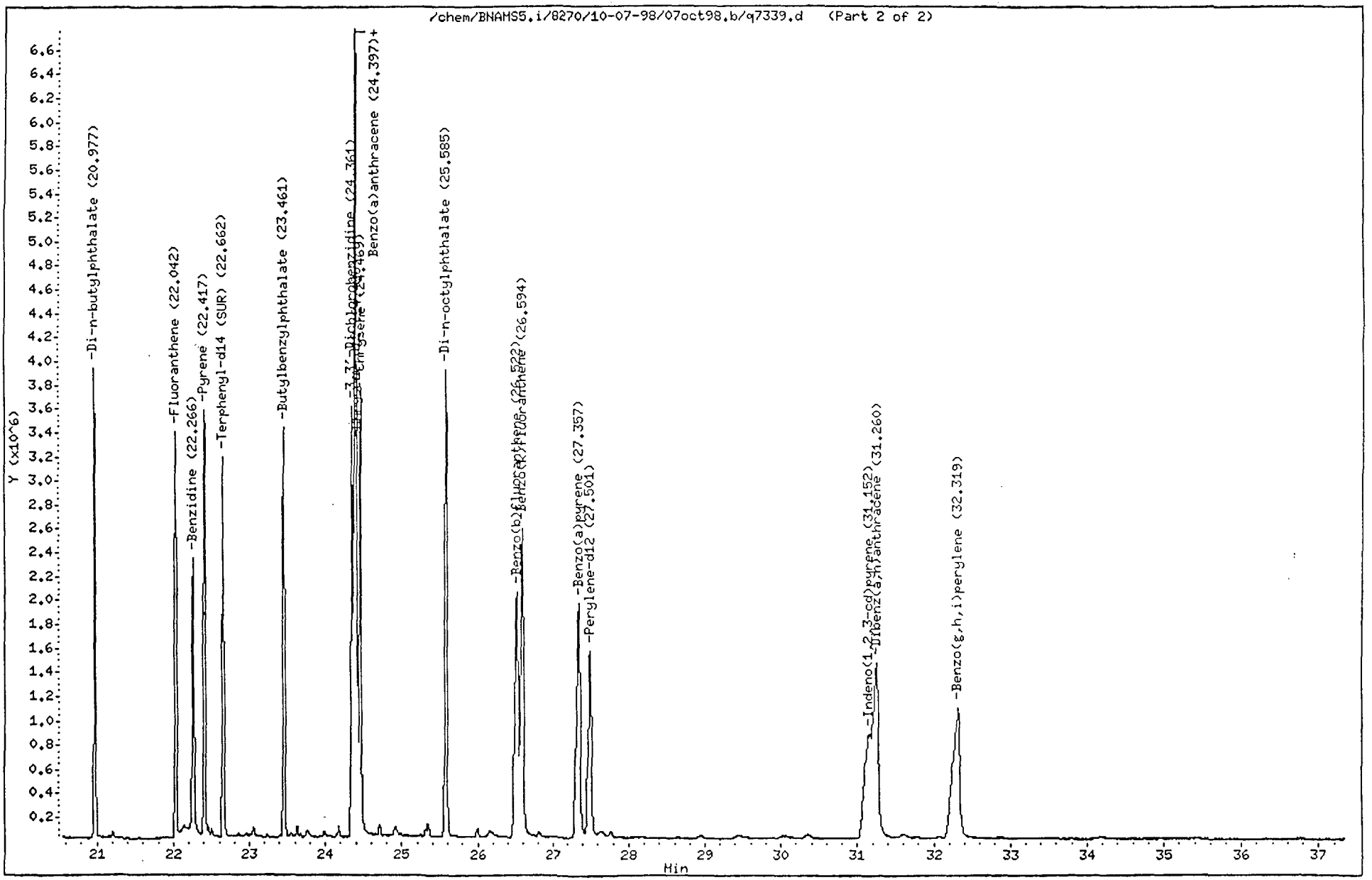
Instrument: BNAMS5.i

Operator: BNAMS3

304086

Column phase: DB-5

Column diameter: 0.25



549

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7342.d
Report Date: 07-Oct-98 18:33:25

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7342.d
Lab Smp Id: QSTD020
Inj Date : 07-OCT-98 16:41:00
Operator : BNAMS 1 Inst ID: BNAMS5.i
Smp Info : QSTD020
Misc Info : 20 ppm std.
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/07oct98.b/8270C-REV..m
Meth Date : 07-Oct-98 18:19:07 ctp Quant Type: ISTD
Cal Date : 07-OCT-98 16:41:00 Cal File: q7342.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
19 N-Nitrosodimethylamine	74	4.761	4.790	(0.384)	160545	20	19
71 Pyridine	79	4.812	4.869	(0.388)	257637	20	20(M)
$ 16 2-Fluorophenol (SUR)	112	9.917	9.931	(0.799)	225250	20	20
$ 17 Phenol-d5 (SUR)	99	11.840	11.847	(0.954)	337939	20	21
1 Phenol	94	11.862	11.876	(0.956)	367637	20	20
73 Aniline	93	11.826	11.825	(0.953)	380551	20	21
20 bis(2-Chloroethyl)ether	93	11.970	11.969	(0.965)	277381	20	20
2 2-Chlorophenol	128	12.049	12.056	(0.971)	255243	20	20
21 1,3-Dichlorobenzene	146	12.301	12.301	(0.991)	273059	20	20
* 79 1,4-Dichlorobenzene-d4	152	12.409	12.409	(1.000)	322992	40	
22 1,4-Dichlorobenzene	146	12.438	12.438	(1.002)	274058	20	20
74 Benzyl Alcohol	108	12.690	12.690	(1.023)	195648	20	21
23 1,2-Dichlorobenzene	146	12.697	12.704	(1.023)	272092	20	20
3 2-Methylphenol	108	12.913	12.913	(1.041)	248563	20	20
24 bis(2-chloroisopropyl)ether	45	12.920	12.920	(1.041)	762969	20	21(M)
4 4-Methylphenol	108	13.180	13.186	(1.062)	275988	20	20
25 N-Nitroso-di-n-propylamine	70	13.143	13.143	(1.059)	193493	20	21
104 Acetophenone	105	13.136	13.129	(1.059)	357379	20	21
26 Hexachloroethane	117	13.280	13.280	(1.070)	97583	20	20
$ 76 Nitrobenzene-d5 (SUR)	82	13.388	13.388	(0.917)	255149	20	20
27 Nitrobenzene	77	13.424	13.424	(0.919)	348579	20	21
107 N,N-Dimethylaniline	120	13.424	13.424	(1.082)	434222	20	21
28 Isophorone	82	13.835	13.827	(0.947)	544483	20	20
5 2-Nitrophenol	139	13.972	13.971	(0.957)	166406	20	20
6 2,4-Dimethylphenol	122	14.065	14.065	(0.963)	255826	20	20

304087

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7342.d
Report Date: 07-Oct-98 18:33:25

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
15 Benzoic Acid	122	14.281	14.223	(0.978)	129898	20	19(M)
29 bis(2-Chloroethoxy)methane	93	14.209	14.209	(0.973)	299798	20	21
7 2,4-Dichlorophenol	162	14.397	14.411	(0.986)	204336	20	20
30 1,2,4-Trichlorobenzene	180	14.512	14.511	(0.994)	209335	20	20
* 80 Naphthalene-d8	136	14.605	14.605	(1.000)	1422024	40	
31 Naphthalene	128	14.641	14.641	(1.002)	826123	20	21
32 4-Chloroaniline	127	14.749	14.749	(1.010)	370241	20	22
33 Hexachlorobutadiene	225	14.843	14.843	(1.016)	101132	20	20
8 4-Chloro-3-methylphenol	107	15.578	15.585	(1.067)	225261	20	21
34 2-Methylnaphthalene	142	15.808	15.808	(1.082)	535125	20	21
35 Hexachlorocyclopentadiene	237	16.060	16.060	(0.915)	30486	20	13
9 2,4,6-Trichlorophenol	196	16.290	16.290	(0.929)	141732	20	19
10 2,4,5-Trichlorophenol	196	16.362	16.377	(0.933)	146230	20	19
$ 77 2-Fluorobiphenyl (SUR)	172	16.420	16.413	(0.936)	540372	20	20
102 Diphenyl	154	16.586	16.585	(0.945)	629400	20	20
36 2-Chloronaphthalene	162	16.622	16.622	(0.947)	468136	20	20
103 Diphenyl Ether	170	16.759	16.758	(0.955)	314116	20	20
37 2-Nitroaniline	65	16.802	16.802	(0.958)	174987	20	21
38 Dimethylphthalate	163	17.097	17.090	(0.975)	606160	20	20
40 2,6-Dinitrotoluene	165	17.205	17.205	(0.981)	141556	20	19
39 Acenaphthylene	152	17.313	17.306	(0.987)	839234	20	20
41 3-Nitroaniline	138	17.486	17.486	(0.997)	114420	20	20
* 82 Acenaphthene-d10	164	17.544	17.543	(1.000)	831261	40	
42 Acenaphthene	153	17.601	17.594	(1.003)	518206	20	20
11 2,4-Dinitrophenol	184	17.680	17.680	(1.008)	189470	50	45
12 4-Nitrophenol	65	17.810	17.810	(1.015)	198534	50	50
44 2,4-Dinitrotoluene	165	17.882	17.889	(1.019)	209197	20	20
43 Dibenzofuran	168	17.889	17.882	(1.020)	716142	20	21
45 Diethylphthalate	149	18.264	18.256	(1.041)	626595	20	20
46 4-Chlorophenyl-phenylether	204	18.451	18.451	(1.052)	232310	20	20
47 Fluorene	166	18.458	18.451	(1.052)	578416	20	21
48 4-Nitroaniline	138	18.516	18.501	(1.055)	178788	20	20
13 4,6-Dinitro-2-methylphenol	198	18.573	18.566	(0.928)	271639	50	47
49 N-Nitrosodiphenylamine	169	18.653	18.645	(0.932)	389542	20	20
75 1,2-Diphenylhydrazine	77	18.717	18.717	(0.935)	607751	20	20
$ 18 2,4,6-Tribromophenol (SUR)	330	18.861	18.861	(1.075)	83720	20	20
50 4-Bromophenyl-phenylether	248	19.265	19.257	(0.962)	141504	20	20
51 Hexachlorobenzene	284	19.373	19.365	(0.968)	160645	20	20
14 Pentachlorophenol	266	19.711	19.711	(0.985)	157094	50	44
* 83 Phenanthrene-d10	188	20.021	20.021	(1.000)	1337641	40	
52 Phenanthrene	178	20.057	20.057	(1.002)	795368	20	20
53 Anthracene	178	20.143	20.136	(1.006)	844633	20	20
54 Carbazole	167	20.417	20.409	(1.020)	843621	20	20
55 Di-n-butylphthalate	149	20.971	20.971	(1.047)	1133118	20	20
56 Fluoranthene	202	22.030	22.030	(1.100)	798277	20	20
58 Benzidine	184	22.260	22.246	(1.112)	1155823	50	56
57 Pyrene	202	22.412	22.404	(0.918)	836378	20	20

304088

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7342.d
Report Date: 07-Oct-98 18:33:25

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 78 Terphenyl-d14 (SUR)	244	22.656	22.649	(0.928)	641509	20	21
59 Butylbenzylphthalate	149	23.456	23.456	(0.961)	526103	20	20
60 3,3'-Dichlorobenzidine	252	24.349	24.334	(0.997)	782137	50	51
61 Benzo(a)anthracene	228	24.392	24.385	(0.999)	815047	20	21
63 bis(2-Ethylhexyl)phthalate	149	24.392	24.392	(0.999)	772710	20	22
* 81 Chrysene-d12	240	24.414	24.406	(1.000)	1166998	40	
62 Chrysene	228	24.457	24.442	(1.002)	799532	20	20
64 Di-n-octylphthalate	149	25.573	25.566	(0.930)	1281424	20	20
65 Benzo(b)fluoranthene	252	26.502	26.495	(0.964)	780299	20	20
66 Benzo(k)fluoranthene	252	26.567	26.559	(0.966)	867345	20	20
67 Benzo(a)pyrene	252	27.330	27.330	(0.994)	761315	20	20
* 84 Perylene-d12	264	27.489	27.488	(1.000)	1144633	40	
68 Indeno(1,2,3-cd)pyrene	276	31.111	31.103	(1.132)	791920	20	20(M)
69 Dibenz(a,h)anthracene	278	31.190	31.183	(1.135)	806042	20	20
70 Benzo(g,h,i)perylene	276	32.241	32.205	(1.173)	820428	20	20

QC Flag Legend

M - Compound response manually integrated.

304089

Data File: /chem/BNAHS5.i/8270/10-07-98/07oct98.b/q7342.d
Date : 07-OCT-98 16:41:00
Client ID:
Sample Info: QSTD020
Purge Volume: 1000.0
Column phase: DB-5

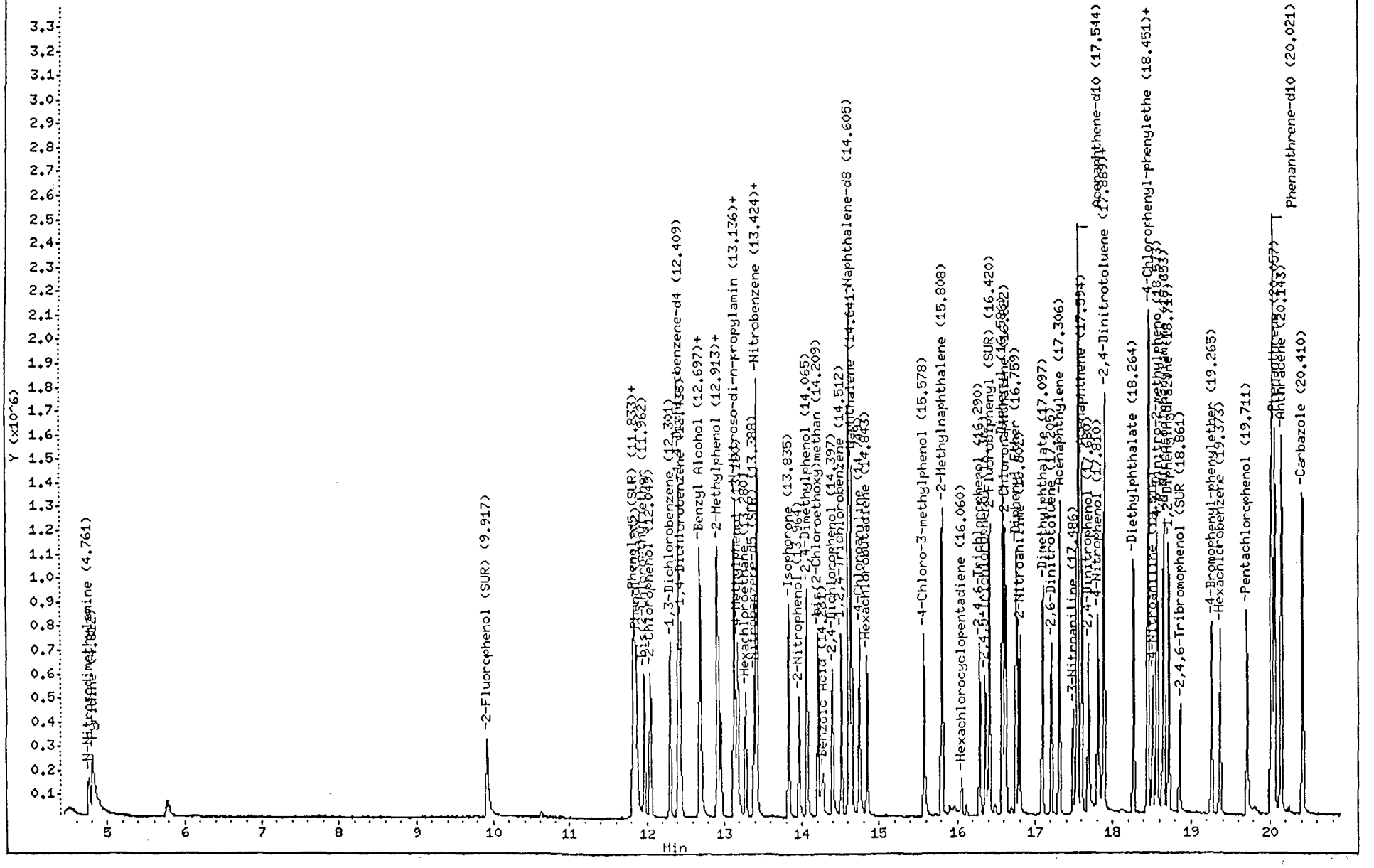
Instrument: BNAHS5.i

Operator: BNAHS 1
Column diameter: 0.25

304090

553

/chem/BNAHS5.i/8270/10-07-98/07oct98.b/q7342.d (Part 1 of 2)



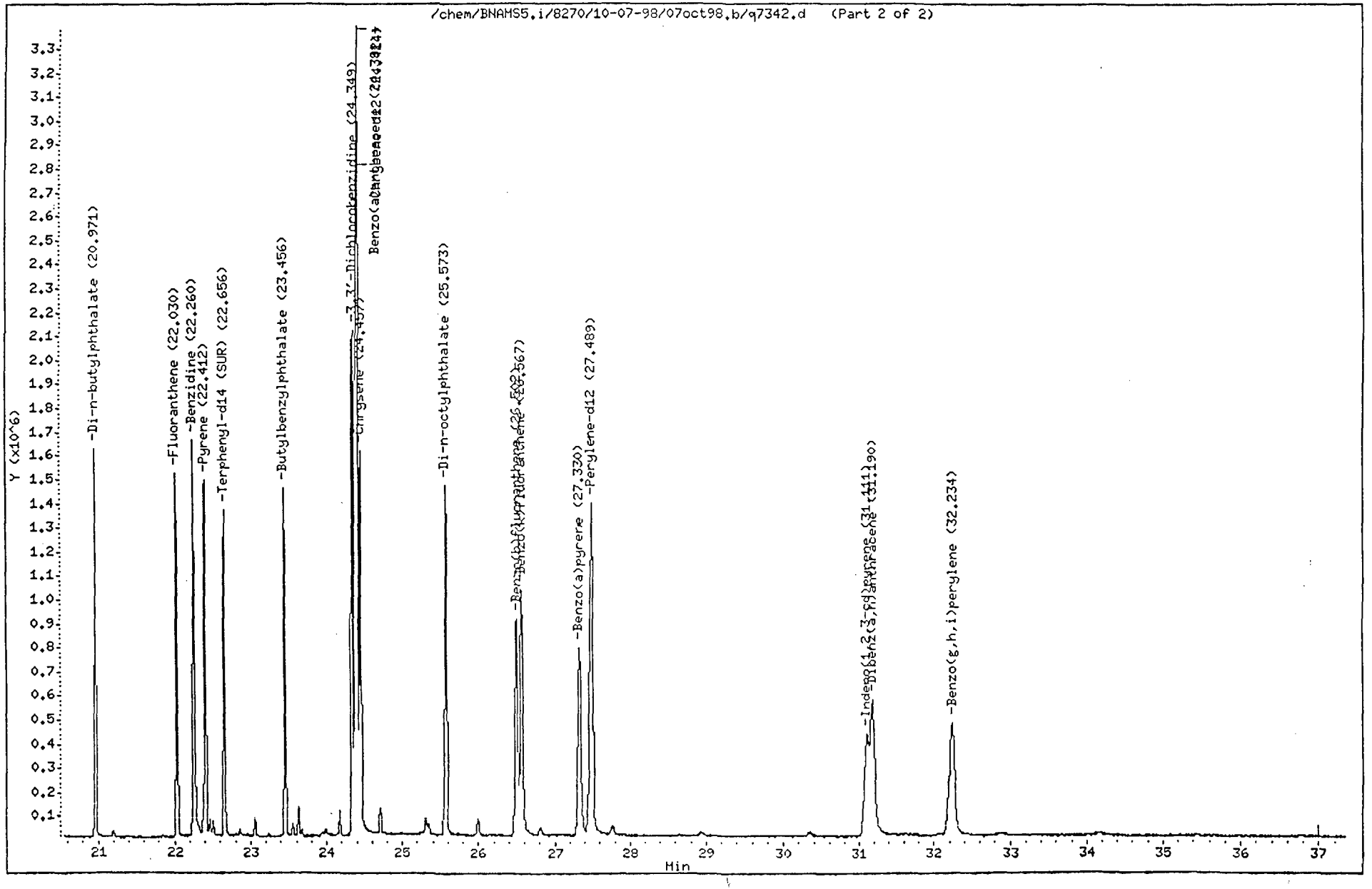
Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7342.d
Date : 07-OCT-98 16:41:00
Client ID:
Sample Info: QSTD020
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS 1
Column diameter: 0.25

304091

554



Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7343.d
Report Date: 07-Oct-98 18:33:33

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7343.d
Lab Smp Id: QSTD005
Inj Date : 07-OCT-98 17:28:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : QSTD005
Misc Info : 5 ppm std.
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/07oct98.b/8270C-REV..m
Meth Date : 07-Oct-98 18:19:07 ctp Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 5 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
19 N-Nitrosodimethylamine	74	4.790	4.790	(0.386)	39926	5.0	4.8(aM)
71 Pyridine	79	4.869	4.869	(0.392)	57878	5.0	4.5(aM)
$ 16 2-Fluorophenol (SUR)	112	9.931	9.931	(0.800)	53030	5.0	4.6(aM)
$ 17 Phenol-d5 (SUR)	99	11.847	11.847	(0.955)	74195	5.0	4.7(a)
1 Phenol	94	11.876	11.876	(0.957)	84961	5.0	4.8(a)
73 Aniline	93	11.825	11.825	(0.953)	100104	5.0	5.4
20 bis(2-Chloroethyl)ether	93	11.969	11.969	(0.965)	7200	0.50	0.53
2 2-Chlorophenol	128	12.056	12.056	(0.972)	58328	5.0	4.6(a)
21 1,3-Dichlorobenzene	146	12.301	12.301	(0.991)	67783	5.0	5.0(a)
* 79 1,4-Dichlorobenzene-d4	152	12.409	12.409	(1.000)	323008	40	
22 1,4-Dichlorobenzene	146	12.438	12.438	(1.002)	68850	5.0	5.0
74 Benzyl Alcohol	108	12.690	12.690	(1.023)	43353	5.0	4.8(a)
23 1,2-Dichlorobenzene	146	12.704	12.704	(1.024)	61920	5.0	4.7(a)
3 2-Methylphenol	108	12.913	12.913	(1.041)	55019	5.0	4.6(a)
24 bis(2-chloroisopropyl)ether	45	12.920	12.920	(1.041)	204459	5.0	5.6(M)

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7343.d
Report Date: 07-Oct-98 18:33:33

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	4 4-Methylphenol	108	13.186	13.186	(1.063)	58081	5.0	4.6(a)
	25 N-Nitroso-di-n-propylamine	70	13.143	13.143	(1.059)	4526	0.50	0.51
	104 Acetophenone	105	13.129	13.129	(1.058)	87642	5.0	5.1
	26 Hexachloroethane	117	13.280	13.280	(1.070)	2342	0.50	0.49(a)
$	76 Nitrobenzene-d5 (SUR)	82	13.388	13.388	(0.917)	57703	5.0	5.0(a)
	27 Nitrobenzene	77	13.424	13.424	(0.919)	8536	0.50	0.55(H)
	107 N,N-Dimethylaniline	120	13.424	13.424	(1.082)	10160	0.50	0.50
	28 Isophorone	82	13.827	13.827	(0.947)	127436	5.0	5.1
	5 2-Nitrophenol	139	13.971	13.971	(0.957)	35139	5.0	4.5(a)
	6 2,4-Dimethylphenol	122	14.065	14.065	(0.963)	48951	5.0	4.3(a)
	15 Benzoic Acid	122	14.223	14.223	(0.974)	18793	5.0	3.1(aM)
	29 bis(2-Chloroethoxy)methane	93	14.209	14.209	(0.973)	83386	5.0	6.0
	7 2,4-Dichlorophenol	162	14.411	14.411	(0.987)	43624	5.0	4.5(a)
	30 1,2,4-Trichlorobenzene	180	14.511	14.511	(0.994)	6172	0.50	0.59
*	80 Naphthalene-d8	136	14.605	14.605	(1.000)	1347866	40	
	31 Naphthalene	128	14.641	14.641	(1.002)	207071	5.0	5.5
	32 4-Chloroaniline	127	14.749	14.749	(1.010)	84576	5.0	5.3
	33 Hexachlorobutadiene	225	14.843	14.843	(1.016)	4878	1.0	1.0
	8 4-Chloro-3-methylphenol	107	15.585	15.585	(1.067)	48048	5.0	4.8(a)
	34 2-Methylnaphthalene	142	15.808	15.808	(1.082)	129040	5.0	5.3
	35 Hexachlorocyclopentadiene	237	16.060	16.060	(0.915)	3579	5.0	1.8(a)
	9 2,4,6-Trichlorophenol	196	16.290	16.290	(0.929)	29899	5.0	4.5(a)
	10 2,4,5-Trichlorophenol	196	16.377	16.377	(0.933)	29526	5.0	4.3(a)
$	77 2-Fluorobiphenyl (SUR)	172	16.413	16.413	(0.936)	126742	5.0	5.0
	102 Diphenyl	154	16.585	16.585	(0.945)	146859	5.0	5.2
	36 2-Chloronaphthalene	162	16.622	16.622	(0.947)	106053	5.0	4.9(a)
	103 Diphenyl Ether	170	16.758	16.758	(0.955)	77528	5.0	5.2
	37 2-Nitroaniline	65	16.802	16.802	(0.958)	79604	10	10
	38 Dimethylphthalate	163	17.090	17.090	(0.974)	137966	5.0	5.0(a)
	40 2,6-Dinitrotoluene	165	17.205	17.205	(0.981)	6389	1.0	0.96(aH)
	39 Acenaphthylene	152	17.306	17.306	(0.986)	184585	5.0	4.8(a)
	41 3-Nitroaniline	138	17.486	17.486	(0.997)	74330	10	13
*	82 Acenaphthene-d10	164	17.543	17.543	(1.000)	770930	40	
	42 Acenaphthene	153	17.594	17.594	(1.003)	121583	5.0	5.2
	11 2,4-Dinitrophenol	184	17.680	17.680	(1.008)	39143	20	11(a)
	12 4-Nitrophenol	65	17.810	17.810	(1.015)	68860	20	19(a)
	44 2,4-Dinitrotoluene	165	17.889	17.889	(1.020)	10040	1.0	1.0
	43 Dibenzofuran	168	17.882	17.882	(1.019)	164787	5.0	5.2
	45 Diethylphthalate	149	18.256	18.256	(1.041)	165809	5.0	5.7
	46 4-Chlorophenyl-phenylether	204	18.451	18.451	(1.052)	55851	5.0	5.3
	47 Fluorene	166	18.451	18.451	(1.052)	135561	5.0	5.3
	48 4-Nitroaniline	138	18.501	18.501	(1.055)	82503	10	10(H)
	13 4,6-Dinitro-2-methylphenol	198	18.566	18.566	(0.927)	86652	20	17(a)
	49 N-Nitrosodiphenylamine	169	18.645	18.645	(0.931)	99668	5.0	5.4
	75 1,2-Diphenylhydrazine	77	18.717	18.717	(0.935)	158480	5.0	5.7
$	18 2,4,6-Tribromophenol (SUR)	330	18.861	18.861	(1.075)	17422	5.0	4.6(a)
	50 4-Bromophenyl-phenylether	248	19.257	19.257	(0.962)	34354	5.0	5.2

304093

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7343.d
Report Date: 07-Oct-98 18:33:33

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
51 Hexachlorobenzene	284	19.365	19.365	(0.967)	4113	0.50	0.56
14 Pentachlorophenol	266	19.711	19.711	(0.985)	41714	20	14(a)
* 83 Phenanthrene-d10	188	20.021	20.021	(1.000)	1218747	40	
52 Phenanthrene	178	20.057	20.057	(1.002)	191202	5.0	5.3
53 Anthracene	178	20.136	20.136	(1.006)	181591	5.0	4.8(a)
54 Carbazole	167	20.409	20.409	(1.019)	191209	5.0	5.0(a)
55 Di-n-butylphthalate	149	20.971	20.971	(1.047)	262547	5.0	5.1
56 Fluoranthene	202	22.030	22.030	(1.100)	189366	5.0	5.2
58 Benzidine	184	22.246	22.246	(1.111)	379391	20	20
57 Pyrene	202	22.404	22.404	(0.918)	187220	5.0	5.0(a)
$ 78 Terphenyl-d14 (SUR)	244	22.649	22.649	(0.928)	143754	5.0	5.1
59 Butylbenzylphthalate	149	23.456	23.456	(0.961)	123310	5.0	5.2
60 3,3'-Dichlorobenzidine	252	24.334	24.334	(0.997)	144373	10	10
61 Benzo(a)anthracene	228	24.385	24.385	(0.999)	21427	0.50	0.58
63 bis(2-Ethylhexyl)phthalate	149	24.392	24.392	(0.999)	153048	5.0	5.1
* 81 Chrysene-d12	240	24.406	24.406	(1.000)	1081504	40	
62 Chrysene	228	24.442	24.442	(1.001)	177361	5.0	4.9(a)
64 Di-n-octylphthalate	149	25.566	25.566	(0.930)	289268	5.0	4.9(a)
65 Benzo(b)fluoranthene	252	26.495	26.495	(0.964)	19418	0.50	0.50(aH)
66 Benzo(k)fluoranthene	252	26.559	26.559	(0.966)	20021	0.50	0.50(aH)
67 Benzo(a)pyrene	252	27.330	27.330	(0.994)	17947	0.50	0.50(a)
* 84 Perylene-d12	264	27.488	27.488	(1.000)	1087637	40	
68 Indeno(1,2,3-cd)pyrene	276	31.103	31.103	(1.131)	20575	0.50	0.53(M)
69 Dibenz(a,h)anthracene	278	31.183	31.183	(1.134)	17788	0.50	0.48(aM)
70 Benzo(g,h,i)perylene	276	32.205	32.205	(1.172)	180290	5.0	4.7(aH)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304094

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7343.d
Date : 07-OCT-98 17:28:00
Client ID:
Sample Info: QSTD005

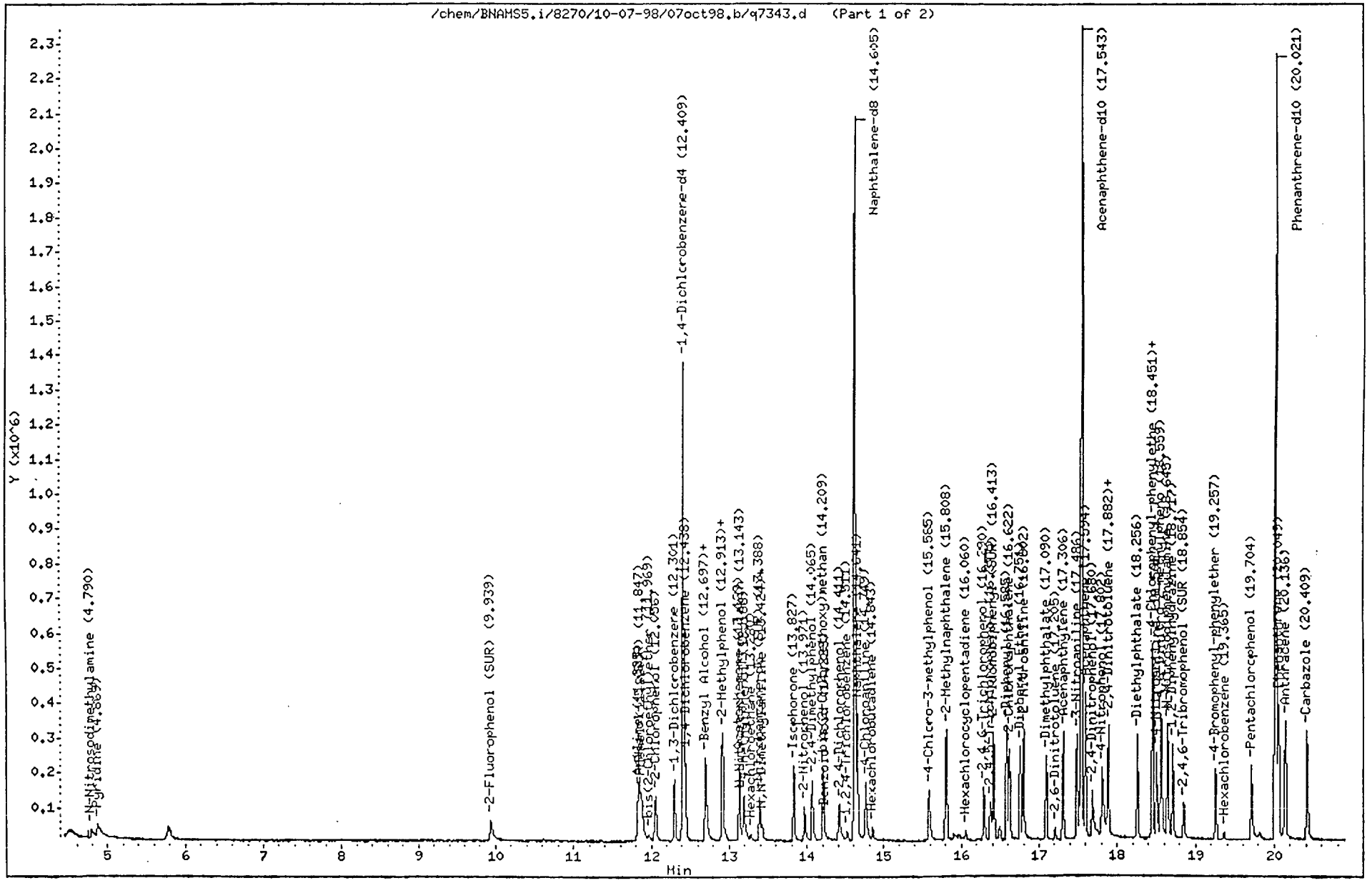
Instrument: BNAMS5.i

Operator: BNAMS3

304095

Column phase: DB-5

Column diameter: 0.25



558

Data File: /chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7343.d
Date : 07-OCT-98 17:28:00
Client ID:
Sample Info: QSTD005

Column phase: DB-5

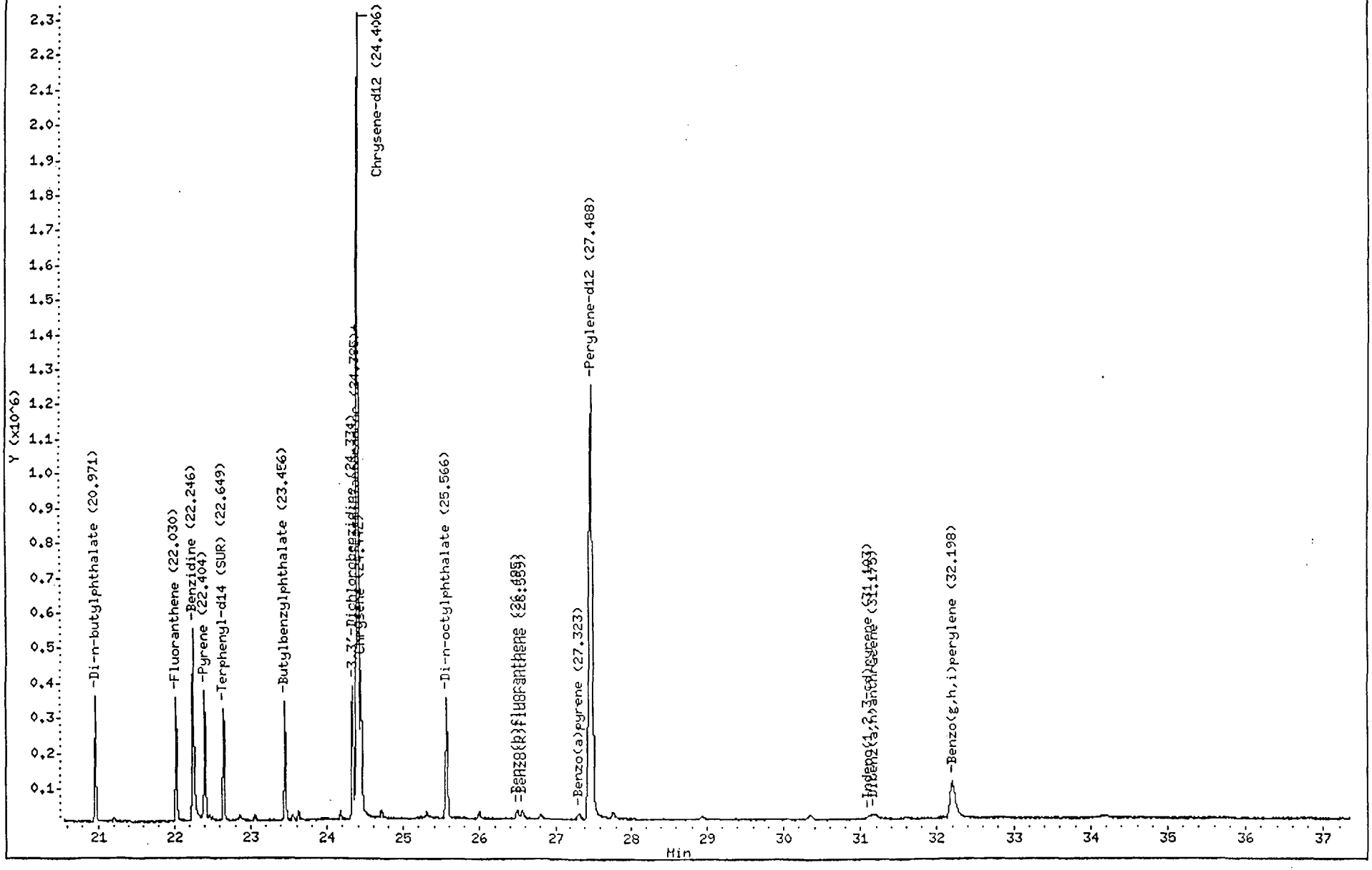
Instrument: BNAMS5.i

Operator: BNAMS3
Column diameter: 0.25

304096

559

/chem/BNAMS5.i/8270/10-07-98/07oct98.b/q7343.d (Part 2 of 2)



SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 8270C

Instrument ID: BNAMS5 Calibration Date: 10/14/98 Time: 0805

Lab File ID: Q7510 Init. Calib. Date(s): 10/07/98 10/07/98

Init. Calib. Times: 1421 1728

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	2.212	2.204		0.4	20.0
2-Chlorophenol	1.573	1.625		-3.3	20.0
2-Methylphenol	1.483	1.518		-2.2	20.0
4-Methylphenol	1.571	1.656		-5.4	20.0
2-Nitrophenol	0.232	0.242		-4.3	20.0
2,4-Dimethylphenol	0.338	0.349		-3.2	20.0
2,4-Dichlorophenol	0.286	0.294		-2.6	20.0
4-Chloro-3-methylphenol	0.298	0.297		0.3	20.0
2,4,6-Trichlorophenol	0.342	0.358		-4.5	20.0
2,4,5-Trichlorophenol	0.359	0.371		-3.3	20.0
2,4-Dinitrophenol	0.188	0.206	0.05	-9.4	20.0
4-Nitrophenol	0.188	0.172	0.05	8.5	20.0
4,6-Dinitro-2-methylphenol	0.168	0.176		-4.6	20.0
Pentachlorophenol	0.101	0.112		-10.7	20.0
Benzoic Acid	0.181	0.181		0.0	20.0
N-Nitrosodimethylamine	1.035	1.081		-4.4	20.0
bis(2-Chloroethyl)ether	1.694	1.691		0.2	20.0
1,3-Dichlorobenzene	1.674	1.696		-1.3	20.0
1,4-Dichlorobenzene	1.696	1.733		-2.0	20.0
1,2-Dichlorobenzene	1.618	1.652		-2.1	20.0
bis(2-chloroisopropyl)ether	4.500	4.120		8.4	20.0
N-Nitroso-di-n-propylamine	1.098	1.086	0.05	1.1	20.0
Hexachloroethane	0.589	0.598		-1.5	20.0
Nitrobenzene	0.462	0.432		6.5	20.0
Isophorone	0.743	0.710		4.4	20.0
bis(2-Chloroethoxy)methane	0.415	0.391		5.8	20.0
1,2,4-Trichlorobenzene	0.311	0.298		4.2	20.0
Naphthalene	1.121	1.117		0.4	20.0
4-Chloroaniline	0.474	0.487		-2.7	20.0
Hexachlorobutadiene	0.142	0.139		2.1	20.0
2-Methylnaphthalene	0.720	0.708		1.7	20.0
Hexachlorocyclopentadiene	0.102	0.088	0.05	13.7	20.0
2-Chloronaphthalene	1.125	1.154		-2.4	20.0
2-Nitroaniline	0.402	0.400		0.5	20.0
Dimethylphthalate	1.437	1.443		-0.0	20.0
Acenaphthylene	1.971	2.038		-3.2	20.0
2,6-Dinitrotoluene	0.346	0.358		-3.3	20.0

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS5 Calibration Date: 10/14/98 Time: 0805

Lab File ID: Q7510 Init. Calib. Date(s): 10/07/98 10/07/98

Init. Calib. Times: 1421 1728

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
3-Nitroaniline	0.297	0.282		5.0	20.0
Acenaphthene	1.214	1.222		0.1	20.0
Dibenzofuran	1.642	1.644		-0.0	20.0
2,4-Dinitrotoluene	0.494	0.501		-1.4	20.0
Diethylphthalate	1.499	1.466		2.2	20.0
4-Chlorophenyl-phenylether	0.544	0.528		2.9	20.0
Fluorene	1.324	1.331		-0.0	20.0
4-Nitroaniline	0.421	0.423		-0.0	20.0
N-Nitrosodiphenylamine	0.602	0.606		0.1	20.0
4-Bromophenyl-phenylether	0.216	0.211		2.3	20.0
Hexachlorobenzene	0.243	0.236		2.9	20.0
Phenanthrene	1.189	1.179		0.8	20.0
Anthracene	1.234	1.243		0.1	20.0
Carbazole	1.249	1.284		-2.8	20.0
Di-n-butylphthalate	1.679	1.722		-2.4	20.0
Fluoranthene	1.184	1.167		1.4	20.0
Pyrene	1.385	1.456		-5.1	20.0
Benzidine	0.607	0.550		9.4	20.0
Butylbenzylphthalate	0.883	0.953		-7.9	20.0
3,3'-Dichlorobenzidine	0.520	0.550		-5.6	20.0
Benzo(a)anthracene	1.358	1.366		-0.0	20.0
Chrysene	1.327	1.414		-6.4	20.0
bis(2-Ethylhexyl)phthalate	1.113	1.248		-12.1	20.0
Di-n-octylphthalate	2.186	2.180		0.3	20.0
Benzo(b)fluoranthene	1.430	1.388		2.9	20.0
Benzo(k)fluoranthene	1.466	1.452		1.0	20.0
Benzo(a)pyrene	1.330	1.319		0.8	20.0
Indeno(1,2,3-cd)pyrene	1.431	1.438		-0.0	20.0
Dibenz(a,h)anthracene	1.375	1.361		1.0	20.0
Benzo(g,h,i)perylene	1.398	1.391		0.5	20.0
Pyridine	1.578	1.601		-1.4	20.0
Aniline	2.285	2.206		3.4	20.0
Benzyl Alcohol	1.123	1.088		3.1	20.0
1,2-Diphenylhydrazine	0.908	0.867		4.5	20.0
Diphenyl	1.459	1.504		-2.9	20.0
Diphenyl Ether	0.765	0.772		0.1	20.0
Acetophenone	2.109	2.028	0.01	3.8	20.0

304098

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS5 Calibration Date: 10/14/98 Time: 0805

Lab File ID: Q7510 Init. Calib. Date(s): 10/07/98 10/07/98

Init. Calib. Times: 1421 1728

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,4-Dioxane			0.01		20.0
N,N-Dimethylaniline	2.496	2.491	0.01	0.2	20.0
2-Fluorophenol (SUR)	1.411	1.452		-2.9	20.0
Phenol-d5 (SUR)	1.969	1.976		-0.0	20.0
2,4,6-Tribromophenol (SUR)	0.198	0.201		-1.5	20.0
Nitrobenzene-d5 (SUR)	0.343	0.335		2.3	20.0
2-Fluorobiphenyl (SUR)	1.300	1.332		-2.3	20.0
Terphenyl-d14 (SUR)	1.047	1.121		-6.9	20.0

Data File: /chem/BNAMS5.i/8270/10-07-98/14oct98.b/q7510.d
Report Date: 14-Oct-98 09:07:04

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/14oct98.b/q7510.d
Lab Smp Id: QSTD287
Inj Date : 14-OCT-98 08:05:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : QSTD287
Misc Info : 50 ppm std.
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/14oct98.b/8270C-REV..m
Meth Date : 14-Oct-98 08:44:40 Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
19 N-Nitrosodimethylamine	74	4.576	4.576	(0.372)	571252	50	52(M)
71 Pyridine	79	4.597	4.597	(0.374)	845853	50	51(M)
$ 16 2-Fluorophenol (SUR)	112	9.768	9.768	(0.795)	767083	50	51
$ 17 Phenol-d5 (SUR)	99	11.734	11.734	(0.955)	1044020	50	50
1 Phenol	94	11.763	11.763	(0.957)	1164419	50	50
73 Aniline	93	11.705	11.705	(0.953)	1165632	50	48
20 bis(2-Chloroethyl)ether	93	11.856	11.856	(0.965)	893540	50	50
2 2-Chlorophenol	128	11.928	11.928	(0.971)	858780	50	52
21 1,3-Dichlorobenzene	146	12.180	12.180	(0.991)	896351	50	51
* 79 1,4-Dichlorobenzene-d4	152	12.288	12.288	(1.000)	422728	40	
22 1,4-Dichlorobenzene	146	12.324	12.324	(1.003)	915818	50	51
74 Benzyl Alcohol	108	12.584	12.584	(1.024)	574979	50	48
23 1,2-Dichlorobenzene	146	12.584	12.584	(1.024)	873104	50	51
3 2-Methylphenol	108	12.807	12.807	(1.042)	802294	50	51
24 bis(2-chloroisopropyl)ether	45	12.792	12.792	(1.041)	2177058	50	46(M)

304100

Data File: /chem/BNAMS5.i/8270/10-07-98/14oct98.b/q7510.d
Report Date: 14-Oct-98 09:07:04

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	4 4-Methylphenol	108	13.073	13.073	(1.064)	875218	50	53
	25 N-Nitroso-di-n-propylamine	70	13.052	13.052	(1.062)	574035	50	49
	104 Acetophenone	105	13.023	13.023	(1.060)	1071452	50	48
	26 Hexachloroethane	117	13.160	13.160	(1.071)	316046	50	51
$	76 Nitrobenzene-d5 (SUR)	82	13.282	13.282	(0.917)	773592	50	49
	27 Nitrobenzene	77	13.325	13.325	(0.919)	999037	50	47
	107 N,N-Dimethylaniline	120	13.318	13.318	(1.084)	1316438	50	50
	28 Isophorone	82	13.736	13.736	(0.948)	1642283	50	48
	5 2-Nitrophenol	139	13.858	13.858	(0.956)	558740	50	52
	6 2,4-Dimethylphenol	122	13.966	13.966	(0.964)	807377	50	52
	15 Benzoic Acid	122	14.247	14.247	(0.983)	418767	50	50
	29 bis(2-Chloroethoxy)methane	93	14.103	14.103	(0.973)	904272	50	47
	7 2,4-Dichlorophenol	162	14.283	14.283	(0.986)	678727	50	51
	30 1,2,4-Trichlorobenzene	180	14.398	14.398	(0.994)	689854	50	48
*	80 Naphthalene-d8	136	14.492	14.492	(1.000)	1849339	40	
	31 Naphthalene	128	14.528	14.528	(1.002)	2583074	50	50
	32 4-Chloroaniline	127	14.636	14.636	(1.010)	1125622	50	51
	33 Hexachlorobutadiene	225	14.730	14.730	(1.016)	322079	50	49
	8 4-Chloro-3-methylphenol	107	15.464	15.464	(1.067)	685917	50	50
	34 2-Methylnaphthalene	142	15.687	15.687	(1.082)	1636015	50	49
	35 Hexachlorocyclopentadiene	237	15.939	15.939	(0.915)	112235	50	43
	9 2,4,6-Trichlorophenol	196	16.177	16.177	(0.928)	457488	50	52
	10 2,4,5-Trichlorophenol	196	16.249	16.249	(0.933)	474291	50	52
$	77 2-Fluorobiphenyl (SUR)	172	16.307	16.307	(0.936)	1703235	50	51
	102 Diphenyl	154	16.472	16.472	(0.945)	1923318	50	52
	36 2-Chloronaphthalene	162	16.508	16.508	(0.948)	1476116	50	51
	103 Diphenyl Ether	170	16.645	16.645	(0.955)	987054	50	50
	37 2-Nitroaniline	65	16.696	16.696	(0.958)	511673	50	50
	38 Dimethylphthalate	163	16.991	16.991	(0.975)	1845333	50	50
	40 2,6-Dinitrotoluene	165	17.106	17.106	(0.982)	458100	50	52
	39 Acenaphthylene	152	17.192	17.192	(0.987)	2607166	50	52
	41 3-Nitroaniline	138	17.380	17.380	(0.998)	361374	50	48
*	82 Acenaphthene-d10	164	17.423	17.423	(1.000)	1023195	40	
	42 Acenaphthene	153	17.481	17.481	(1.003)	1563379	50	50
	11 2,4-Dinitrophenol	184	17.581	17.581	(1.009)	421869	80	88
	12 4-Nitrophenol	65	17.711	17.711	(1.017)	352875	80	74
	44 2,4-Dinitrotoluene	165	17.783	17.783	(1.021)	640303	50	51
	43 Dibenzofuran	168	17.769	17.769	(1.020)	2102059	50	50
	45 Diethylphthalate	149	18.165	18.165	(1.043)	1875620	50	49
	46 4-Chlorophenyl-phenylether	204	18.337	18.337	(1.052)	675044	50	48
	47 Fluorene	166	18.337	18.337	(1.052)	1702607	50	50
	48 4-Nitroaniline	138	18.424	18.424	(1.057)	540847	50	50
	13 4,6-Dinitro-2-methylphenol	198	18.474	18.474	(0.929)	552859	80	84
	49 N-Nitrosodiphenylamine	169	18.546	18.546	(0.932)	1187329	50	50
	75 1,2-Diphenylhydrazine	77	18.604	18.604	(0.935)	1697802	50	48
$	18 2,4,6-Tribromophenol (SUR)	330	18.741	18.741	(1.076)	257520	50	51
	50 4-Bromophenyl-phenylether	248	19.144	19.144	(0.962)	413152	50	49

304101

Data File: /chem/BNAMS5.i/8270/10-07-98/14oct98.b/q7510.d
Report Date: 14-Oct-98 09:07:04

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	51 Hexachlorobenzene	284	19.252	19.252	(0.968)	462889	50	49
	14 Pentachlorophenol	266	19.591	19.591	(0.985)	352263	80	89
*	83 Phenanthrene-d10	188	19.893	19.893	(1.000)	1567075	40	
	52 Phenanthrene	178	19.936	19.936	(1.002)	2309713	50	50
	53 Anthracene	178	20.023	20.023	(1.006)	2435058	50	50
	54 Carbazole	167	20.296	20.296	(1.020)	2515846	50	51
	55 Di-n-butylphthalate	149	20.858	20.858	(1.048)	3373404	50	51
	56 Fluoranthene	202	21.909	21.909	(1.101)	2286275	50	49
	58 Benzidine	184	22.133	22.133	(1.113)	1724856	80	72
	57 Pyrene	202	22.284	22.284	(0.917)	2376674	50	52
$	78 Terphenyl-d14 (SUR)	244	22.536	22.536	(0.928)	1829755	50	53
	59 Butylbenzylphthalate	149	23.335	23.335	(0.961)	1555384	50	54
	60 3,3'-Dichlorobenzidine	252	24.228	24.228	(0.997)	1435959	80	85
	61 Benzo(a)anthracene	228	24.264	24.264	(0.999)	2231003	50	50
	63 bis(2-Ethylhexyl)phthalate	149	24.271	24.271	(0.999)	2037059	50	56
*	81 Chrysene-d12	240	24.293	24.293	(1.000)	1306121	40	
	62 Chrysene	228	24.336	24.336	(1.002)	2309407	50	53
	64 Di-n-octylphthalate	149	25.424	25.424	(0.933)	3872824	50	50
	65 Benzo(b)fluoranthene	252	26.317	26.317	(0.966)	2465484	50	48
	66 Benzo(k)fluoranthene	252	26.389	26.389	(0.968)	2578595	50	50
	67 Benzo(a)pyrene	252	27.116	27.116	(0.995)	2343764	50	50
*	84 Perylene-d12	264	27.253	27.253	(1.000)	1421142	40	
	68 Indeno(1,2,3-cd)pyrene	276	30.760	30.760	(1.129)	2554814	50	50(M)
	69 Dibenz(a,h)anthracene	278	30.868	30.868	(1.133)	2418130	50	49
	70 Benzo(g,h,i)perylene	276	31.876	31.876	(1.170)	2470406	50	50

QC Flag Legend

M - Compound response manually integrated.

304102

Data File: /chem/BNAMS5.i/8270/10-07-98/14oct98.b/q7510.d
Date : 14-OCT-98 08:05:00
Client ID:
Sample Info: QSTD287

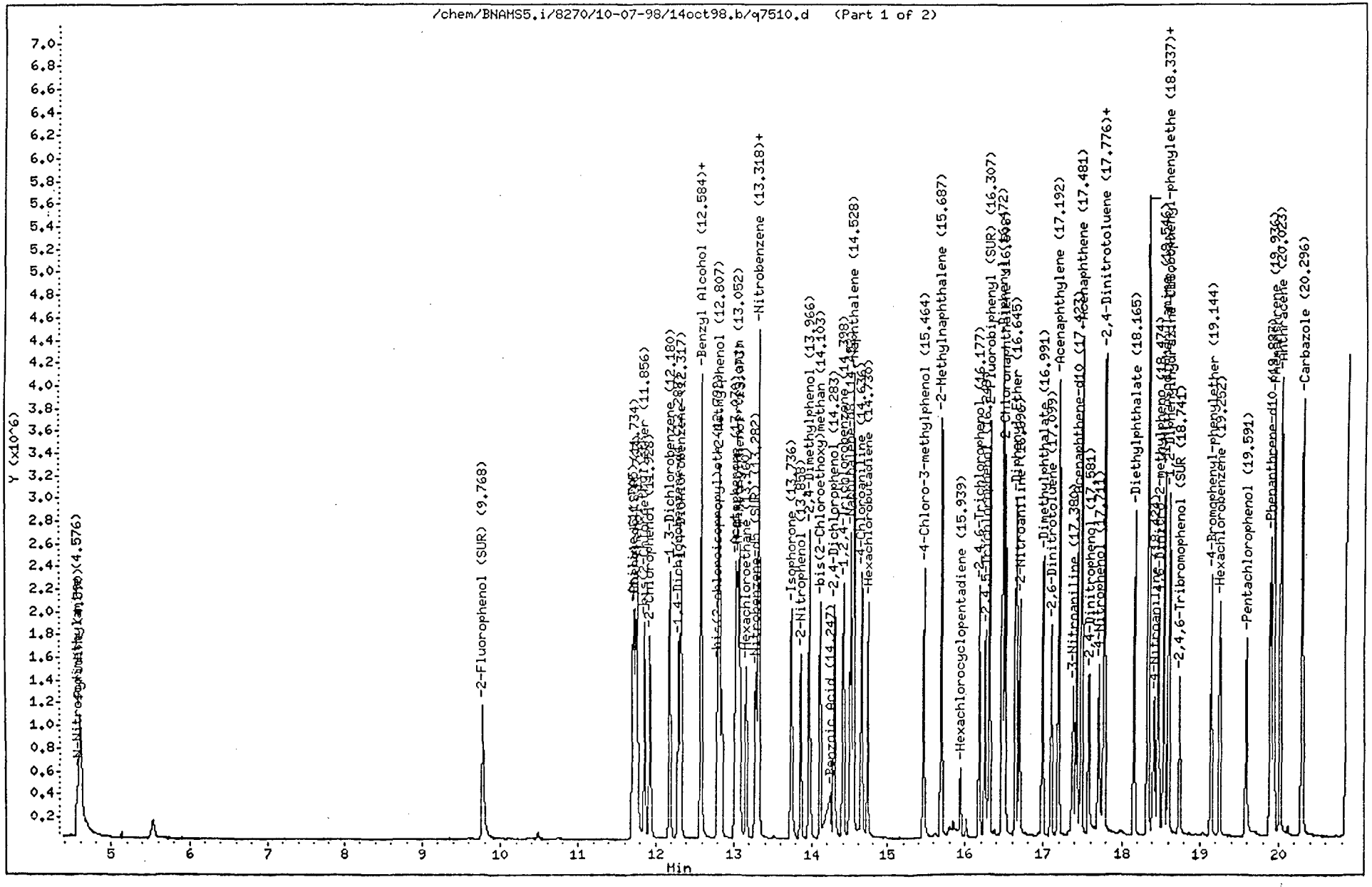
Instrument: BNAMS5.i

Operator: BNAMS3

304103

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS5.i/8270/10-07-98/14oct98.b/q7510.d
Date : 14-OCT-98 08:05:00
Client ID:
Sample Info: QSTD287

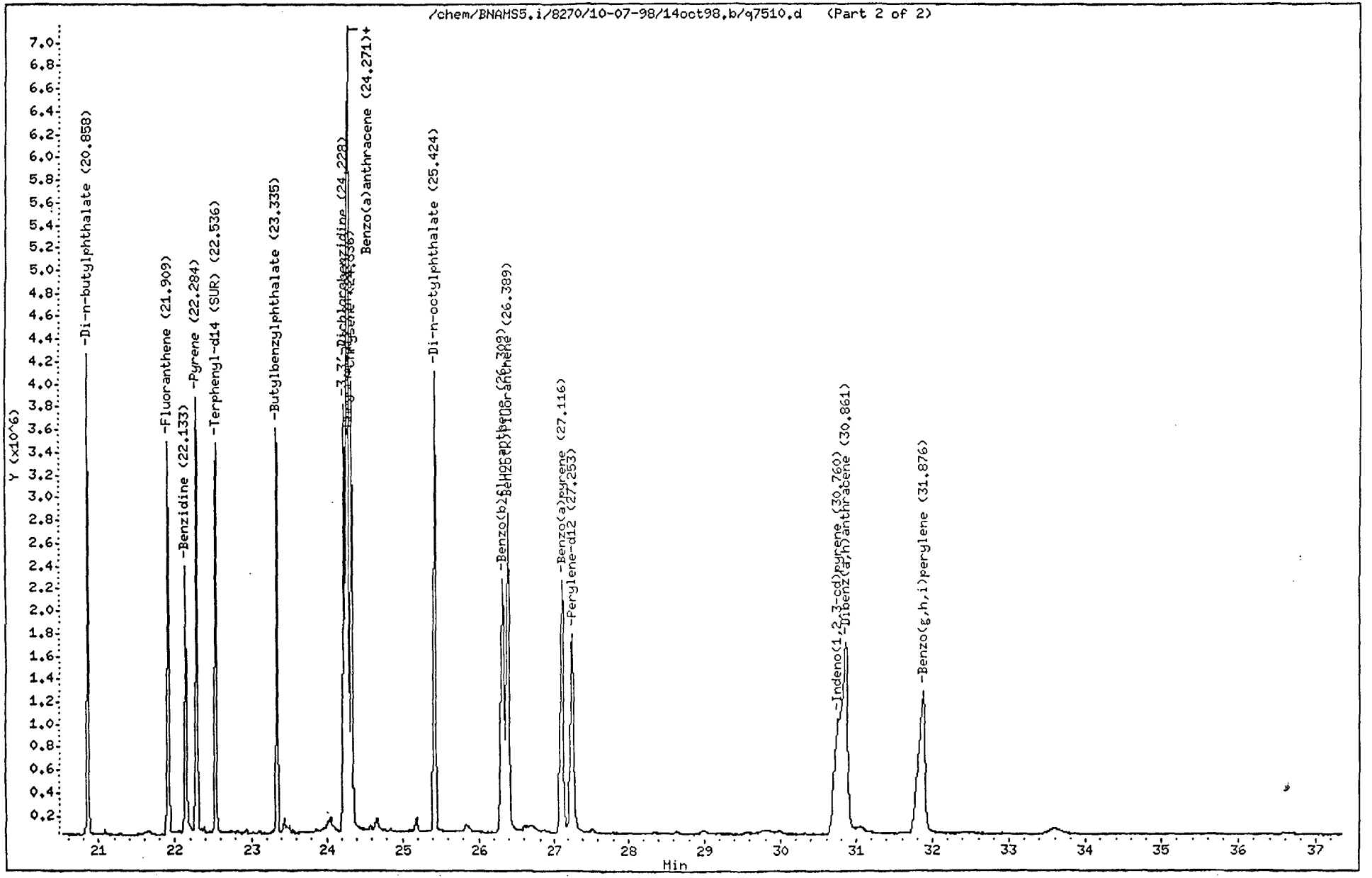
Instrument: BNAMS5.i

Operator: BNAMS3

304104

Column phase: DB-5

Column diameter: 0.25



567

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 8270C

Instrument ID: BNAMS5 Calibration Date: 10/15/98 Time: 0841

Lab File ID: Q7541 Init. Calib. Date(s): 10/07/98 10/07/98

Init. Calib. Times: 1421 1728

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	2.212	2.159		2.4	20.0
2-Chlorophenol	1.573	1.617		-2.6	20.0
2-Methylphenol	1.483	1.516		-2.2	20.0
4-Methylphenol	1.571	1.653		-5.2	20.0
2-Nitrophenol	0.232	0.242		-4.3	20.0
2,4-Dimethylphenol	0.338	0.357		-5.6	20.0
2,4-Dichlorophenol	0.286	0.294		-2.6	20.0
4-Chloro-3-methylphenol	0.298	0.297		0.3	20.0
2,4,6-Trichlorophenol	0.342	0.353		-3.2	20.0
2,4,5-Trichlorophenol	0.359	0.371		-3.3	20.0
2,4-Dinitrophenol	0.188	0.206	0.05	-9.4	20.0
4-Nitrophenol	0.188	0.170	0.05	9.6	20.0
4,6-Dinitro-2-methylphenol	0.168	0.171		-1.6	20.0
Pentachlorophenol	0.101	0.109		-7.9	20.0
Benzoic Acid	0.181	0.190		-4.8	20.0
N-Nitrosodimethylamine	1.035	1.007		2.7	20.0
bis(2-Chloroethyl)ether	1.694	1.669		1.5	20.0
1,3-Dichlorobenzene	1.674	1.663		0.6	20.0
1,4-Dichlorobenzene	1.696	1.703		-0.0	20.0
1,2-Dichlorobenzene	1.618	1.643		-1.5	20.0
bis(2-chloroisopropyl)ether	4.500	4.052		10.0	20.0
N-Nitroso-di-n-propylamine	1.098	1.096	0.05	0.2	20.0
Hexachloroethane	0.589	0.592		-0.0	20.0
Nitrobenzene	0.462	0.436		5.6	20.0
Isophorone	0.743	0.711		4.3	20.0
bis(2-Chloroethoxy)methane	0.415	0.398		4.1	20.0
1,2,4-Trichlorobenzene	0.311	0.294		5.5	20.0
Naphthalene	1.121	1.130		0.1	20.0
4-Chloroaniline	0.474	0.495		-4.4	20.0
Hexachlorobutadiene	0.142	0.139		2.1	20.0
2-Methylnaphthalene	0.720	0.735		-1.9	20.0
Hexachlorocyclopentadiene	0.102	0.098	0.05	3.9	20.0
2-Chloronaphthalene	1.125	1.152		-2.4	20.0
2-Nitroaniline	0.402	0.391		2.7	20.0
Dimethylphthalate	1.437	1.439		-0.0	20.0
Acenaphthylene	1.971	2.056		-4.3	20.0
2,6-Dinitrotoluene	0.346	0.356		-2.7	20.0

304105

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS5 Calibration Date: 10/15/98 Time: 0841

Lab File ID: Q7541 Init. Calib. Date(s): 10/07/98 10/07/98

Init. Calib. Times: 1421 1728

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
3-Nitroaniline	0.297	0.276		7.1	20.0
Acenaphthene	1.214	1.237		-1.7	20.0
Dibenzofuran	1.642	1.657		0.1	20.0
2,4-Dinitrotoluene	0.494	0.493		0.2	20.0
Diethylphthalate	1.499	1.435		4.3	20.0
4-Chlorophenyl-phenylether	0.544	0.530		2.6	20.0
Fluorene	1.324	1.314		0.8	20.0
4-Nitroaniline	0.421	0.404		4.0	20.0
N-Nitrosodiphenylamine	0.602	0.605		-0.0	20.0
4-Bromophenyl-phenylether	0.216	0.217		-0.0	20.0
Hexachlorobenzene	0.243	0.242		0.4	20.0
Phenanthrene	1.189	1.186		0.2	20.0
Anthracene	1.234	1.260		-2.1	20.0
Carbazole	1.249	1.241		0.6	20.0
Di-n-butylphthalate	1.679	1.713		-2.0	20.0
Fluoranthene	1.184	1.147		3.1	20.0
Pyrene	1.385	1.500		-8.3	20.0
Benzidine	0.607	0.556		8.4	20.0
Butylbenzylphthalate	0.883	0.957		-8.2	20.0
3,3'-Dichlorobenzidine	0.520	0.557		-7.1	20.0
Benzo(a)anthracene	1.358	1.422		-4.7	20.0
Chrysene	1.327	1.435		-8.1	20.0
bis(2-Ethylhexyl)phthalate	1.113	1.278		-14.8	20.0
Di-n-octylphthalate	2.186	2.129		2.6	20.0
Benzo(b)fluoranthene	1.430	1.339		6.4	20.0
Benzo(k)fluoranthene	1.466	1.467		-0.0	20.0
Benzo(a)pyrene	1.330	1.314		1.2	20.0
Indeno(1,2,3-cd)pyrene	1.431	1.404		1.9	20.0
Dibenz(a,h)anthracene	1.375	1.418		-3.1	20.0
Benzo(g,h,i)perylene	1.398	1.452		-3.7	20.0
Pyridine	1.578	1.492		5.4	20.0
Aniline	2.285	2.148		6.0	20.0
Benzyl Alcohol	1.123	1.115		0.7	20.0
1,2-Diphenylhydrazine	0.908	0.879		3.2	20.0
Diphenyl	1.459	1.506		-3.2	20.0
Diphenyl Ether	0.765	0.760		0.6	20.0
Acetophenone	2.109	2.061	0.01	2.3	20.0

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS5 Calibration Date: 10/15/98 Time: 0841

Lab File ID: Q7541 Init. Calib. Date(s): 10/07/98 10/07/98

Init. Calib. Times: 1421 1728

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,4-Dioxane			0.01		20.0
N,N-Dimethylaniline	2.496	2.515	0.01	0.1	20.0
2-Fluorophenol (SUR)	1.411	1.372		2.8	20.0
Phenol-d5 (SUR)	1.969	1.957		0.6	20.0
2,4,6-Tribromophenol (SUR)	0.198	0.203		-2.5	20.0
Nitrobenzene-d5 (SUR)	0.343	0.331		3.5	20.0
2-Fluorobiphenyl (SUR)	1.300	1.326		-2.0	20.0
Terphenyl-d14 (SUR)	1.047	1.111		-6.1	20.0

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7541.d
Report Date: 15-Oct-98 09:26:07

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7541.d
Lab Smp Id: QSTD288
Inj Date : 15-OCT-98 08:41:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : QSTD288
Misc Info : 50 ppm std.
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/15oct98.b/8270C-REV..m
Meth Date : 15-Oct-98 09:22:02 Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
19 N-Nitrosodimethylamine	74	4.492	4.492	(0.367)	446692	50	49(M)
71 Pyridine	79	4.513	4.513	(0.368)	661550	50	47(M)
$ 16 2-Fluorophenol (SUR)	112	9.720	9.720	(0.793)	608394	50	49
$ 17 Phenol-d5 (SUR)	99	11.700	11.700	(0.955)	867957	50	50
1 Phenol	94	11.722	11.722	(0.957)	957424	50	49
73 Aniline	93	11.671	11.671	(0.952)	952305	50	47
20 bis(2-Chloroethyl)ether	93	11.823	11.823	(0.965)	740269	50	49
2 2-Chlorophenol	128	11.888	11.888	(0.970)	716902	50	51
21 1,3-Dichlorobenzene	146	12.147	12.147	(0.991)	737431	50	50
* 79 1,4-Dichlorobenzene-d4	152	12.255	12.255	(1.000)	354743	40	
22 1,4-Dichlorobenzene	146	12.284	12.284	(1.002)	755122	50	50
74 Benzyl Alcohol	108	12.550	12.550	(1.024)	494335	50	50
23 1,2-Dichlorobenzene	146	12.543	12.543	(1.024)	728506	50	51
3 2-Methylphenol	108	12.773	12.773	(1.042)	672470	50	51
24 bis(2-chloroisopropyl)ether	45	12.773	12.773	(1.042)	1796632	50	45(M)

304108

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7541.d
Report Date: 15-Oct-98 09:26:07

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	4 4-Methylphenol	108	13.040	13.040	(1.064)	733100	50	53
	25 N-Nitroso-di-n-propylamine	70	13.011	13.011	(1.062)	486042	50	50
	104 Acetophenone	105	12.989	12.989	(1.060)	913982	50	49
	26 Hexachloroethane	117	13.126	13.126	(1.071)	262641	50	50
$	76 Nitrobenzene-d5 (SUR)	82	13.249	13.249	(0.916)	648193	50	48
	27 Nitrobenzene	77	13.285	13.285	(0.919)	853650	50	47
	107 N,N-Dimethylaniline	120	13.285	13.285	(1.084)	1115251	50	50
	28 Isophorone	82	13.702	13.702	(0.948)	1391798	50	48
	5 2-Nitrophenol	139	13.825	13.825	(0.956)	473648	50	52
	6 2,4-Dimethylphenol	122	13.933	13.933	(0.964)	698868	50	53
	15 Benzoic Acid	122	14.206	14.206	(0.983)	371356	50	52
	29 bis(2-Chloroethoxy)methane	93	14.070	14.070	(0.973)	778151	50	48
	7 2,4-Dichlorophenol	162	14.250	14.250	(0.986)	576433	50	52
	30 1,2,4-Trichlorobenzene	180	14.365	14.365	(0.994)	576233	50	47
*	80 Naphthalene-d8	136	14.458	14.458	(1.000)	1565465	40	
	31 Naphthalene	128	14.494	14.494	(1.002)	2211861	50	50
	32 4-Chloroaniline	127	14.602	14.602	(1.010)	968695	50	52
	33 Hexachlorobutadiene	225	14.696	14.696	(1.016)	271516	50	49
	8 4-Chloro-3-methylphenol	107	15.438	15.438	(1.068)	581329	50	50
	34 2-Methylnaphthalene	142	15.661	15.661	(1.083)	1437664	50	51
	35 Hexachlorocyclopentadiene	237	15.906	15.906	(0.915)	107883	50	48
	9 2,4,6-Trichlorophenol	196	16.144	16.144	(0.928)	387062	50	52
	10 2,4,5-Trichlorophenol	196	16.216	16.216	(0.932)	407296	50	52
$	77 2-Fluorobiphenyl (SUR)	172	16.273	16.273	(0.936)	1453909	50	51
	102 Diphenyl	154	16.439	16.439	(0.945)	1651476	50	52
	36 2-Chloronaphthalene	162	16.475	16.475	(0.947)	1263425	50	51
	103 Diphenyl Ether	170	16.612	16.612	(0.955)	833260	50	50
	37 2-Nitroaniline	65	16.662	16.662	(0.958)	429002	50	49
	38 Dimethylphthalate	163	16.957	16.957	(0.975)	1577944	50	50
	40 2,6-Dinitrotoluene	165	17.065	17.065	(0.981)	390387	50	51
	39 Acenaphthylene	152	17.159	17.159	(0.987)	2254745	50	52
	41 3-Nitroaniline	138	17.346	17.346	(0.998)	303082	50	46
*	82 Acenaphthene-d10	164	17.389	17.389	(1.000)	877158	40	
	42 Acenaphthene	153	17.447	17.447	(1.003)	1356377	50	51
	11 2,4-Dinitrophenol	184	17.541	17.541	(1.009)	361107	80	87
	12 4-Nitrophenol	65	17.670	17.670	(1.016)	298877	80	73
	44 2,4-Dinitrotoluene	165	17.742	17.742	(1.020)	540667	50	50
	43 Dibenzofuran	168	17.735	17.735	(1.020)	1816436	50	50
	45 Diethylphthalate	149	18.131	18.131	(1.043)	1573288	50	48
	46 4-Chlorophenyl-phenylether	204	18.304	18.304	(1.053)	581393	50	49
	47 Fluorene	166	18.304	18.304	(1.053)	1440775	50	50
	48 4-Nitroaniline	138	18.383	18.383	(1.057)	443017	50	48
	13 4,6-Dinitro-2-methylphenol	198	18.434	18.434	(0.928)	453879	80	82
	49 N-Nitrosodiphenylamine	169	18.506	18.506	(0.932)	1003046	50	50
	75 1,2-Diphenylhydrazine	77	18.570	18.570	(0.935)	1456618	50	48
$	18 2,4,6-Tribromophenol (SUR)	330	18.707	18.707	(1.076)	222331	50	51
	50 4-Bromophenyl-phenylether	248	19.110	19.110	(0.962)	358899	50	50

304109

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7541.d
Report Date: 15-Oct-98 09:26:09

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
51 Hexachlorobenzene	284	19.218	19.218	(0.968)	400067	50	50
14 Pentachlorophenol	266	19.557	19.557	(0.985)	288883	80	86
* 83 Phenanthrene-d10	188	19.859	19.859	(1.000)	1325255	40	
52 Phenanthrene	178	19.903	19.903	(1.002)	1964375	50	50
53 Anthracene	178	19.989	19.989	(1.007)	2086922	50	51
54 Carbazole	167	20.263	20.263	(1.020)	2056137	50	50
55 Di-n-butylphthalate	149	20.824	20.824	(1.049)	2837910	50	51
56 Fluoranthene	202	21.869	21.869	(1.101)	1900716	50	48
58 Benzidine	184	22.099	22.099	(1.113)	1473038	80	73
57 Pyrene	202	22.250	22.250	(0.917)	2005847	50	54
$ 78 Terphenyl-d14 (SUR)	244	22.495	22.495	(0.928)	1486389	50	53
59 Butylbenzylphthalate	149	23.302	23.302	(0.961)	1280027	50	54
60 3,3'-Dichlorobenzidine	252	24.187	24.187	(0.997)	1191479	80	86
61 Benzo(a)anthracene	228	24.223	24.223	(0.999)	1901674	50	52
63 bis(2-Ethylhexyl)phthalate	149	24.238	24.238	(0.999)	1708553	50	57
* 81 Chrysene-d12	240	24.252	24.252	(1.000)	1069866	40	
62 Chrysene	228	24.295	24.295	(1.002)	1919068	50	54
64 Di-n-octylphthalate	149	25.376	25.376	(0.933)	3171728	50	49
65 Benzo(b)fluoranthene	252	26.254	26.254	(0.966)	1994835	50	47
66 Benzo(k)fluoranthene	252	26.319	26.319	(0.968)	2186088	50	50
67 Benzo(a)pyrene	252	27.046	27.046	(0.995)	1958150	50	49
* 84 Perylene-d12	264	27.183	27.183	(1.000)	1192005	40	
68 Indeno(1,2,3-cd)pyrene	276	30.647	30.647	(1.127)	2092446	50	49(M)
69 Dibenz(a,h)anthracene	278	30.741	30.741	(1.131)	2113470	50	52
70 Benzo(g,h,i)perylene	276	31.742	31.742	(1.168)	2163952	50	52

QC Flag Legend

M - Compound response manually integrated.

304110

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7541.d
Date : 15-OCT-98 08:41:00
Client ID:
Sample Info: QSTD288

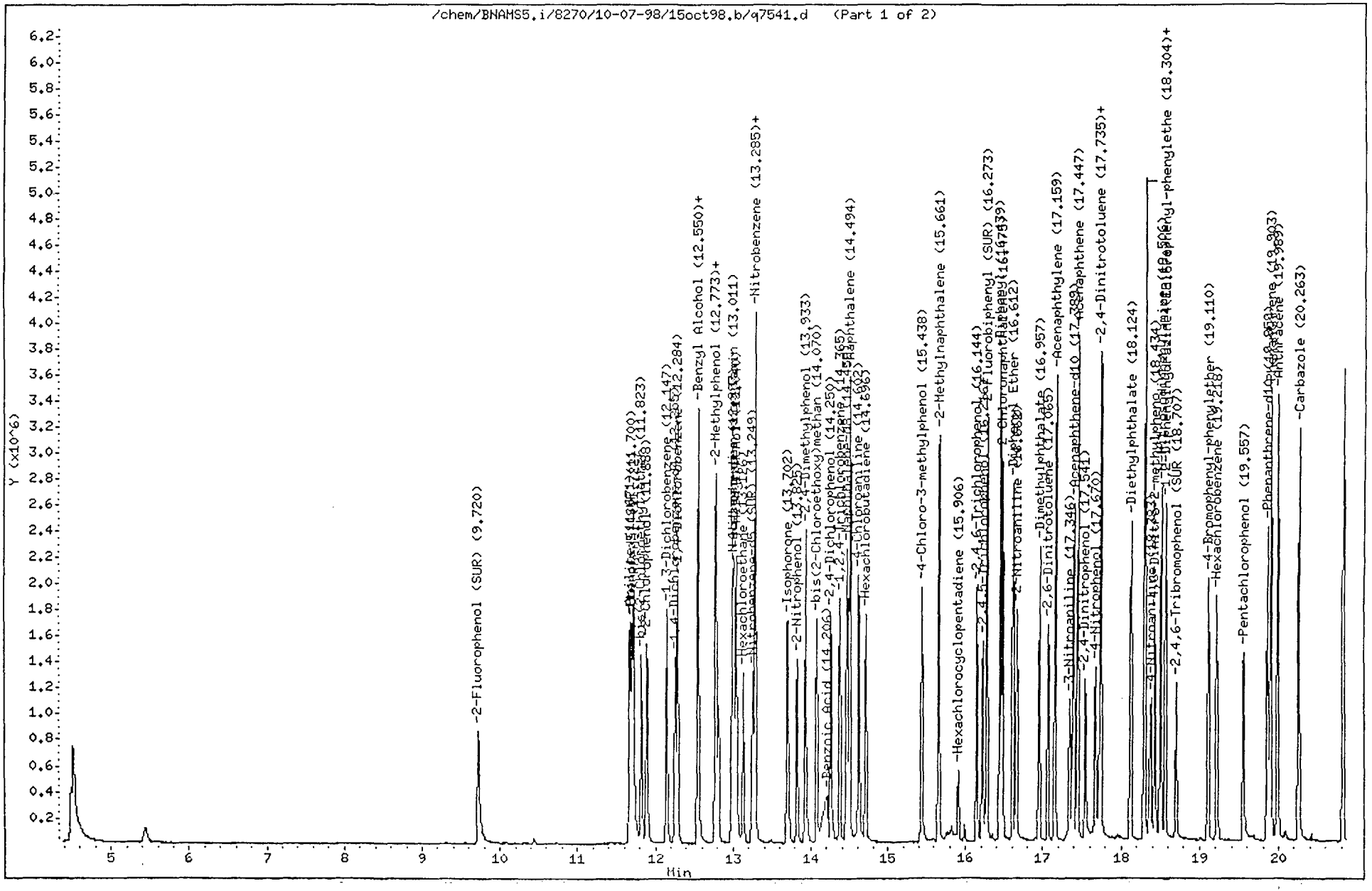
Instrument: BNAMS5.i

Operator: BNAMS3

304111

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7541.d
Date : 15-OCT-98 08:41:00
Client ID:
Sample Info: QSTD288

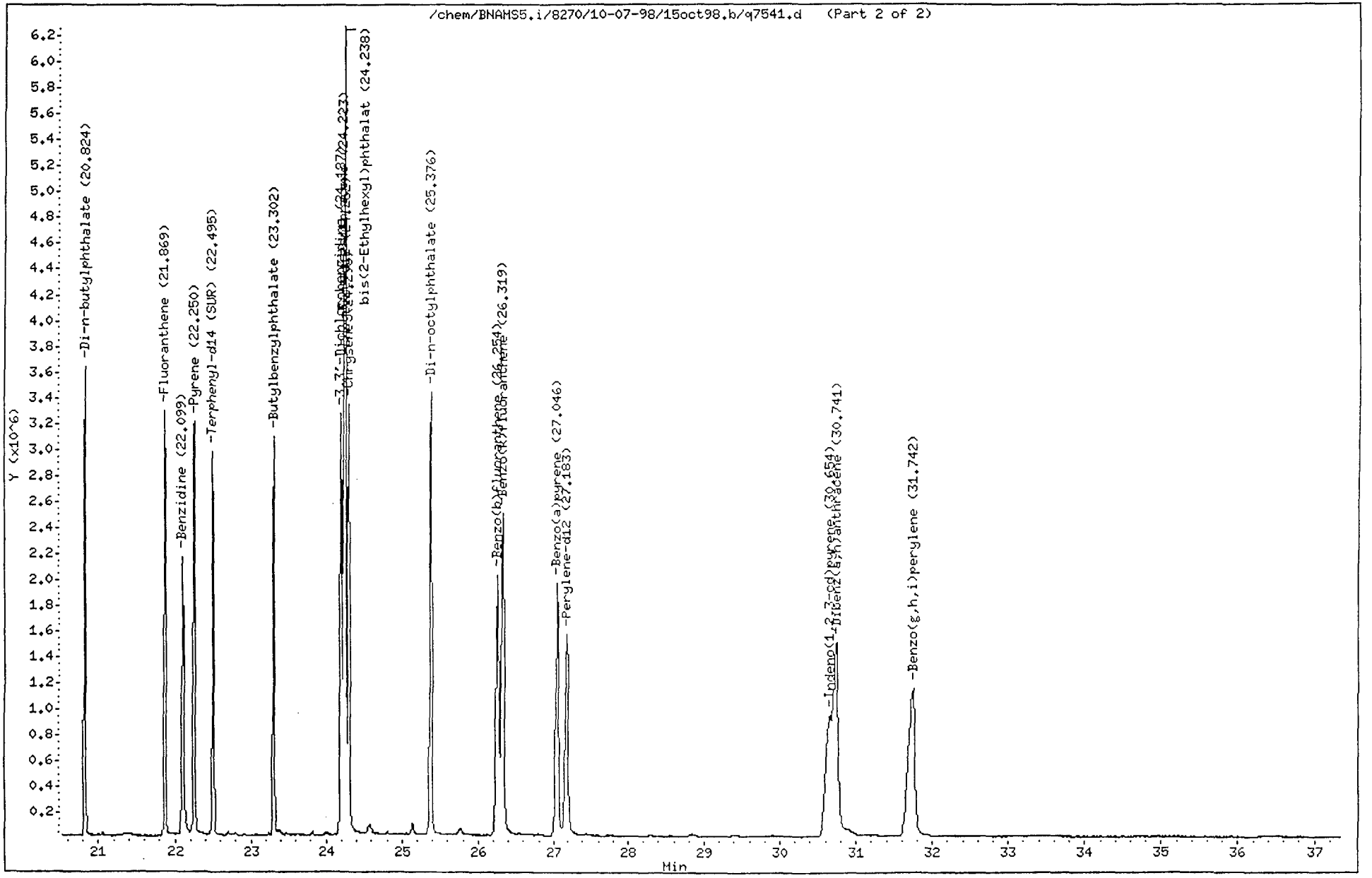
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS3
Column diameter: 0.25

304112

575



SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA
METHOD 8270C

Instrument ID: BNAMS6 Calibration Date(s): 10/12/98 10/12/98

Calibration Time(s): 1037 1400

LAB FILE ID: RRF5: M2725 RRF20: M2728 RRF50: M2724
RRF80: M2727 RRF120: M2726

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Phenol	2.170	2.321	2.188	2.327	2.398
2-Chlorophenol	1.308	1.354	1.326	1.372	1.382
2-Methylphenol	1.474	1.540	1.462	1.528	1.501
4-Methylphenol	1.535	1.587	1.528	1.703	1.992
2-Nitrophenol	0.199	0.240	0.226	0.242	0.239
2,4-Dimethylphenol	0.338	0.354	0.336	0.352	0.355
2,4-Dichlorophenol	0.318	0.357	0.360	0.370	0.388
4-Chloro-3-methylphenol	0.490	0.523	0.524	0.529	0.541
2,4,6-Trichlorophenol	0.468	0.494	0.532	0.540	0.588
2,4,5-Trichlorophenol	0.474	0.526	0.557	0.591	0.622
2,4-Dinitrophenol	0.149	0.279	0.287	0.345	0.378
4-Nitrophenol	0.634	0.653	0.671	0.667	0.673
4,6-Dinitro-2-methylphenol	0.141	0.202	0.205	0.222	0.232
Pentachlorophenol	0.216	0.254	0.288	0.285	0.304
Benzoic Acid	0.135	0.255	0.221	0.228	0.222
N-Nitrosodimethylamine	0.988	1.154	1.121	1.166	1.168
bis(2-Chloroethyl)ether	1.783	2.030	1.876	1.919	1.931
1,3-Dichlorobenzene	1.688	1.660	1.648	1.738	1.850
1,4-Dichlorobenzene	1.626	1.696	1.683	1.774	1.920
1,2-Dichlorobenzene	1.564	1.662	1.650	1.752	1.877
bis(2-chloroisopropyl)ether	2.955	2.711	2.513	2.564	2.454
N-Nitroso-di-n-propylamine	1.867	1.949	1.910	1.952	1.955
Hexachloroethane	0.762	0.887	0.922	0.932	0.980
Nitrobenzene	1.208	1.166	1.186	1.182	1.168
Isophorone	1.308	1.331	1.274	1.264	1.212
bis(2-Chloroethoxy)methane	0.721	0.585	0.547	0.557	0.560
1,2,4-Trichlorobenzene	0.457	0.416	0.420	0.444	0.477
Naphthalene	1.156	1.114	1.090	1.170	1.302
4-Chloroaniline	0.481	0.480	0.446	0.466	0.447
Hexachlorobutadiene	0.357	0.394	0.409	0.416	0.446
2-Methylnaphthalene	0.758	0.754	0.748	0.817	0.920
Hexachlorocyclopentadiene	0.275	0.270	0.315	0.369	0.411
2-Chloronaphthalene	1.117	1.150	1.201	1.279	1.433
2-Nitroaniline	0.851	0.965	0.967	0.955	0.956
Dimethylphthalate	1.739	1.715	1.793	1.823	1.919
Acenaphthylene	1.760	1.770	1.856	1.979	2.226
2,6-Dinitrotoluene	0.261	0.380	0.393	0.418	0.436
3-Nitroaniline	0.333	0.221	0.231	0.228	0.229
Acenaphthene	1.183	1.179	1.321	1.451	1.656

304113

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS6 Calibration Date(s): 10/12/98 10/12/98

Calibration Time(s): 1037 1400

LAB FILE ID: RRF5: M2725 RRF20: M2728 RRF50: M2724
RRF80: M2727 RRF120: M2726

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Dibenzofuran	1.903	1.907	2.006	2.121	2.407
2,4-Dinitrotoluene	0.499	0.601	0.609	0.652	0.684
Diethylphthalate	2.402	2.040	2.176	2.224	2.431
4-Chlorophenyl-phenylether	0.889	0.882	0.974	1.061	1.239
Fluorene	1.509	1.444	1.589	1.769	2.086
4-Nitroaniline	0.302	0.404	0.406	0.342	0.316
N-Nitrosodiphenylamine	0.545	0.497	0.534	0.547	0.606
4-Bromophenyl-phenylether	0.303	0.293	0.333	0.336	0.378
Hexachlorobenzene	0.295	0.338	0.382	0.386	0.423
Phenanthrene	1.178	1.146	1.280	1.336	1.525
Anthracene	1.128	1.208	1.335	1.415	1.580
Carbazole	1.071	1.015	1.057	1.039	1.074
Di-n-butylphthalate	1.782	1.687	1.871	1.904	1.873
Fluoranthene	1.347	1.328	1.481	1.576	1.700
Pyrene	1.114	1.152	1.212	1.309	1.334
Benzidine	0.640	0.615	0.563	0.487	0.435
Butylbenzylphthalate	0.744	0.711	0.723	0.767	0.802
3,3'-Dichlorobenzidine	0.307	0.469	0.552	0.578	0.544
Benzo(a)anthracene	1.411	1.235	1.253	1.328	1.349
Chrysene	1.099	1.131	1.152	1.230	1.215
bis(2-Ethylhexyl)phthalate	0.895	1.057	1.312	1.421	1.393
Di-n-octylphthalate	1.960	2.023	2.227	2.315	2.474
Benzo(b)fluoranthene	1.382	1.448	1.519	1.647	1.902
Benzo(k)fluoranthene	1.433	1.565	1.674	1.708	1.605
Benzo(a)pyrene	1.242	1.388	1.473	1.511	1.535
Indeno(1,2,3-cd)pyrene	0.934	1.201	1.317	1.349	1.492
Dibenz(a,h)anthracene	0.935	1.187	1.381	1.398	1.475
Benzo(g,h,i)perylene	1.167	1.252	1.381	1.382	1.386
Pyridine	1.370	1.497	1.540	1.651	1.616
Aniline	2.681	2.668	2.422	2.555	2.566
Benzyl Alcohol	1.145	1.171	1.096	1.127	1.125
1,2-Diphenylhydrazine	1.554	1.333	1.376	1.324	1.369
Diphenyl	1.393	1.392	1.478	1.658	1.937
Diphenyl Ether	0.909	0.846	0.893	0.917	1.035
Acetophenone	3.004	2.898	2.946	3.139	3.419
1,4-Dioxane	0.510	0.606	0.566	0.584	0.595
N,N-Dimethylaniline	2.416	2.473	2.642	2.918	3.136
2-Fluorophenol (SUR)	1.503	1.548	1.498	1.571	1.568

304114

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS6

Calibration Date(s): 10/12/98 10/12/98

Calibration Time(s): 1037 1400

LAB FILE ID: RRF5: M2725 RRF20: M2728 RRF50: M2724
RRF80: M2727 RRF120: M2726

COMPOUND	RRF5	RRF20	RRF50	RRF80	RRF120
Phenol-d5 (SUR)	2.065	2.153	1.999	2.058	2.028
2,4,6-Tribromophenol (SUR)	0.369	0.410	0.455	0.473	0.504
Nitrobenzene-d5 (SUR)	0.683	0.752	0.729	0.734	0.732
2-Fluorobiphenyl (SUR)	1.402	1.426	1.526	1.647	1.884
Terphenyl-d14 (SUR)	0.970	1.005	1.079	1.148	1.164

304115

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS6 Calibration Date(s): 10/12/98 10/12/98

Calibration Time(s): 1037 1400

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol	AVRG	2.28075124	4.3*
2-Chlorophenol	AVRG	1.34837931	2.3*
2-Methylphenol	AVRG	1.50079278	2.2*
4-Methylphenol	AVRG	1.66916416	11.6*
2-Nitrophenol	AVRG	0.22942068	7.9*
2,4-Dimethylphenol	AVRG	0.34707739	2.7*
2,4-Dichlorophenol	AVRG	0.35886478	7.2*
4-Chloro-3-methylphenol	AVRG	0.52131668	3.6*
2,4,6-Trichlorophenol	AVRG	0.52432728	8.8*
2,4,5-Trichlorophenol	AVRG	0.55408136	10.4*
2,4-Dinitrophenol	AVRG	0.28748202	30.5**
4-Nitrophenol	AVRG	0.65965786	2.5**
4,6-Dinitro-2-methylphenol	AVRG	0.20027416	17.8*
Pentachlorophenol	AVRG	0.26949971	12.9*
Benzoic Acid	AVRG	0.21216730	21.3*
N-Nitrosodimethylamine	AVRG	1.11962850	6.8*
bis(2-Chloroethyl)ether	AVRG	1.90772414	4.7*
1,3-Dichlorobenzene	AVRG	1.71697024	4.8*
1,4-Dichlorobenzene	AVRG	1.73970639	6.5*
1,2-Dichlorobenzene	AVRG	1.70107608	7.0*
bis(2-chloroisopropyl)ether	AVRG	2.63934393	7.6*
N-Nitroso-di-n-propylamine	AVRG	1.92651612	2.0**
Hexachloroethane	AVRG	0.89642220	9.2*
Nitrobenzene	AVRG	1.18184961	1.4*
Isophorone	AVRG	1.27795525	3.6*
bis(2-Chloroethoxy)methane	AVRG	0.59390452	12.2*
1,2,4-Trichlorobenzene	AVRG	0.44304221	5.8*
Naphthalene	AVRG	1.16662962	7.0*
4-Chloroaniline	AVRG	0.46375449	3.7*
Hexachlorobutadiene	AVRG	0.40441058	8.1*
2-Methylnaphthalene	AVRG	0.79943390	9.1*
Hexachlorocyclopentadiene	AVRG	0.32810886	18.6**
2-Chloronaphthalene	AVRG	1.23605030	10.2*
2-Nitroaniline	AVRG	0.93878051	5.3*
Dimethylphthalate	AVRG	1.79787487	4.5*
Acenaphthylene	AVRG	1.91826590	10.1*
2,6-Dinitrotoluene	AVRG	0.37758488	18.2*
3-Nitroaniline	AVRG	0.24844695	19.1*
Acenaphthene	AVRG	1.35768397	14.8*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304116

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS6 Calibration Date(s): 10/12/98 10/12/98

Calibration Time(s): 1037 1400

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Dibenzofuran	AVRG	2.06886726	10.1*
2,4-Dinitrotoluene	AVRG	0.60914487	11.5*
Diethylphthalate	AVRG	2.25482180	7.2*
4-Chlorophenyl-phenylether	AVRG	1.00896489	14.6*
Fluorene	AVRG	1.67932381	15.4*
4-Nitroaniline	AVRG	0.35396552	13.8*
N-Nitrosodiphenylamine	AVRG	0.54603072	7.2*
4-Bromophenyl-phenylether	AVRG	0.32870681	10.1*
Hexachlorobenzene	AVRG	0.36476866	13.5*
Phenanthrene	AVRG	1.29291530	11.6*
Anthracene	AVRG	1.33328566	13.3*
Carbazole	AVRG	1.05118931	2.3*
Di-n-butylphthalate	AVRG	1.82340225	4.9*
Fluoranthene	AVRG	1.48644373	10.5*
Pyrene	AVRG	1.22430832	7.8*
Benzidine	AVRG	0.54801755	15.7*
Butylbenzylphthalate	AVRG	0.74943905	4.8*
3,3'-Dichlorobenzidine	AVRG	0.49017311	22.4*
Benzo(a)anthracene	AVRG	1.31508968	5.5*
Chrysene	AVRG	1.16574221	4.8*
bis(2-Ethylhexyl)phthalate	AVRG	1.21559392	18.9*
Di-n-octylphthalate	AVRG	2.19969928	9.6*
Benzo(b)fluoranthene	AVRG	1.57972136	13.0*
Benzo(k)fluoranthene	AVRG	1.59695884	6.7*
Benzo(a)pyrene	AVRG	1.42984873	8.3*
Indeno(1,2,3-cd)pyrene	AVRG	1.25868272	16.6*
Dibenz(a,h)anthracene	AVRG	1.27505460	17.1*
Benzo(g,h,i)perylene	AVRG	1.31390973	7.6*
Pyridine	AVRG	1.53464411	7.2*
Aniline	AVRG	2.57830941	4.0*
Benzyl Alcohol	AVRG	1.13282981	2.4*
1,2-Diphenylhydrazine	AVRG	1.39126926	6.7*
Diphenyl	AVRG	1.57152180	14.7*
Diphenyl Ether	AVRG	0.92022066	7.6*
Acetophenone	AVRG	3.08133022	6.8**
1,4-Dioxane	AVRG	0.57217143	6.6**
N,N-Dimethylaniline	AVRG	2.71697585	11.2**
2-Fluorophenol (SUR)	AVRG	1.53765208	2.3*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304117

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA (cont'd)
METHOD 8270C

Instrument ID: BNAMS6

Calibration Date(s): 10/12/98 10/12/98

Calibration Time(s): 1037 1400

COMPOUND	CURVE	COEFFICENT A1	%RSD OR R^2
Phenol-d5 (SUR)	AVRG	2.06038603	2.8*
2,4,6-Tribromophenol (SUR)	AVRG	0.44190889	12.0*
Nitrobenzene-d5 (SUR)	AVRG	0.72622144	3.5*
2-Fluorobiphenyl (SUR)	AVRG	1.57739638	12.5*
Terphenyl-d14 (SUR)	AVRG	1.07334636	8.0*

* Compound with required maximum % RSD value.
** Compound with required minimum RRF value.

304118

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2726.d
Report Date: 09-Nov-1998 11:02

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2726.d
Lab Smp Id: MSTD120
Inj Date : 12-OCT-1998 12:29
Operator : BNAMS3 Inst ID: BNAMS6.i
Smp Info : MSTD120
Misc Info : 120 PPM BNA STD.
Comment :
Method : /chem/BNAMS6.i/8270/10-12-98/12oct98.b/8270C-REV..m
Meth Date : 14-Oct-98 15:56:17 jeri Quant Type: ISTD
Cal Date : 12-OCT-1998 10:37 Cal File: m2724.d
Als bottle: 3 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)
106 1,4-Dioxane	88	5.343	5.290	(0.402)	644936	120.000	120(A)
19 N-Nitrosodimethylamine	74	6.748	6.620	(0.508)	1266035	120.000	120(A)
71 Pyridine	79	6.728	6.692	(0.506)	1751962	120.000	130(A)
$ 16 2-Fluorophenol (SUR)	112	10.866	10.846	(0.817)	1700368	120.000	120(A)
$ 17 Phenol-d5 (SUR)	99	12.662	12.621	(0.952)	2198030	120.000	120
1 Phenol	94	12.695	12.647	(0.955)	2599326	120.000	130(A)
73 Aniline	93	12.722	12.700	(0.957)	2781439	120.000	120
20 bis(2-Chloroethyl)ether	93	12.854	12.818	(0.967)	2093372	120.000	120(A)
2 2-Chlorophenol	128	12.926	12.910	(0.972)	1498329	120.000	120(A)
21 1,3-Dichlorobenzene	146	13.203	13.186	(0.993)	2005662	120.000	130(A)
* 79 1,4-Dichlorobenzene-d4	152	13.295	13.291	(1.000)	361365	40.0000	
22 1,4-Dichlorobenzene	146	13.328	13.317	(1.002)	2081383	120.000	130(A)
74 Benzyl Alcohol	108	13.552	13.514	(1.019)	1219393	120.000	120
23 1,2-Dichlorobenzene	146	13.591	13.580	(1.022)	2035249	120.000	130(A)

304119

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2726.d
Report Date: 09-Nov-1998 11:02

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
3 2-Methylphenol	108	13.737	13.699	(1.033)	1626799	120.000	120(M)
24 bis(2-chloroisopropyl)ether	45	13.770	13.758	(1.036)	2660149	120.000	110(M)
4 4-Methylphenol	108	14.000	13.955	(1.053)	2159966	120.000	140(A)
25 N-Nitroso-di-n-propylamine	70	14.033	13.975	(1.056)	2119016	120.000	120(A)
104 Acetophenone	105	14.020	13.981	(1.055)	3706533	120.000	130(A)
26 Hexachloroethane	117	14.178	14.165	(1.066)	1062390	120.000	130(A)
$ 76 Nitrobenzene-d5 (SUR)	82	14.271	14.238	(0.922)	3089856	120.000	120(A)
27 Nitrobenzene	77	14.311	14.277	(0.924)	4930731	120.000	120
107 N,N-Dimethylaniline	120	14.304	14.277	(1.076)	3399700	120.000	140(A)
28 Isophorone	82	14.725	14.677	(0.951)	5118284	120.000	110
5 2-Nitrophenol	139	14.838	14.815	(0.959)	1009881	120.000	120(A)
6 2,4-Dimethylphenol	122	14.897	14.862	(0.962)	1500287	120.000	120(A)
15 Benzoic Acid	122	15.201	15.013	(0.982)	937928	120.000	120(AM)
29 bis(2-Chloroethoxy)methane	93	15.056	15.026	(0.973)	2364081	120.000	110
7 2,4-Dichlorophenol	162	15.241	15.210	(0.985)	1640347	120.000	130(A)
30 1,2,4-Trichlorobenzene	180	15.380	15.368	(0.994)	2015299	120.000	130(A)
* 80 Naphthalene-d8	136	15.480	15.474	(1.000)	1407373	40.0000	
31 Naphthalene	128	15.526	15.507	(1.003)	5497668	120.000	130(A)
32 4-Chloroaniline	127	15.599	15.573	(1.008)	1886077	120.000	120
33 Hexachlorobutadiene	225	15.712	15.698	(1.015)	1884659	120.000	130(A)
8 4-Chloro-3-methylphenol	107	16.370	16.353	(1.057)	2284240	120.000	120(A)
34 2-Methylnaphthalene	142	16.680	16.668	(1.078)	3885113	120.000	140(A)
35 Hexachlorocyclopentadiene	237	16.924	16.918	(0.918)	1151373	120.000	150(A)
9 2,4,6-Trichlorophenol	196	17.136	17.115	(0.930)	1646924	120.000	130(A)
10 2,4,5-Trichlorophenol	196	17.196	17.175	(0.933)	1742836	120.000	130(A)
$ 77 2-Fluorobiphenyl (SUR)	172	17.282	17.267	(0.938)	5278982	120.000	140(A)
102 Diphenyl	154	17.461	17.438	(0.948)	5425034	120.000	150(A)
36 2-Chloronaphthalene	162	17.508	17.484	(0.950)	4014252	120.000	140(A)
103 Diphenyl Ether	170	17.627	17.609	(0.957)	2900099	120.000	140(A)
37 2-Nitroaniline	65	17.667	17.636	(0.959)	2677223	120.000	120(AM)
38 Dimethylphthalate	163	17.951	17.925	(0.974)	5376872	120.000	130(A)
40 2,6-Dinitrotoluene	165	18.071	18.037	(0.981)	1220393	120.000	140(A)
39 Acenaphthylene	152	18.203	18.181	(0.988)	6235300	120.000	140(A)
41 3-Nitroaniline	138	18.355	18.313	(0.996)	641325	120.000	110
* 82 Acenaphthene-d10	164	18.428	18.418	(1.000)	933772	40.0000	
42 Acenaphthene	153	18.494	18.471	(1.004)	4637887	120.000	150(A)
11 2,4-Dinitrophenol	184	18.521	18.498	(1.005)	1058443	120.000	160(A)
12 4-Nitrophenol	65	18.601	18.557	(1.009)	1886632	120.000	120(A)
44 2,4-Dinitrotoluene	165	18.747	18.709	(1.017)	1916682	120.000	130(A)
43 Dibenzofuran	168	18.787	18.762	(1.019)	6743551	120.000	140(A)
45 Diethylphthalate	149	19.131	19.097	(1.038)	6809848	120.000	130(A)
46 4-Chlorophenyl-phenylether	204	19.329	19.307	(1.049)	3470947	120.000	150(A)
47 Fluorene	166	19.356	19.334	(1.050)	5843066	120.000	150(A)
48 4-Nitroaniline	138	19.422	19.340	(1.054)	884181	120.000	110
13 4,6-Dinitro-2-methylphenol	198	19.442	19.393	(0.930)	1287167	120.000	140(A)
49 N-Nitrosodiphenylamine	169	19.535	19.499	(0.934)	3360961	120.000	130(A)
75 1,2-Diphenylhydrazine	77	19.602	19.578	(0.937)	7586885	120.000	120

304120

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2726.d
Report Date: 09-Nov-1998 11:02

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 18 2,4,6-Tribromophenol (SUR)	330	19.754	19.730	(1.072)	1411265	120.000	140(A)
50 4-Bromophenyl-phenylether	248	20.152	20.130	(0.964)	2094165	120.000	140(A)
51 Hexachlorobenzene	284	20.271	20.249	(0.969)	2344604	120.000	140(A)
14 Pentachlorophenol	266	20.583	20.564	(0.984)	1683286	120.000	140(A)
* 83 Phenanthrene-d10	188	20.914	20.906	(1.000)	1847501	40.0000	
52 Phenanthrene	178	20.967	20.946	(1.003)	8452882	120.000	140(A)
53 Anthracene	178	21.060	21.032	(1.007)	8757252	120.000	140(A)
54 Carbazole	167	21.298	21.275	(1.018)	5953791	120.000	120(A)
55 Di-n-butylphthalate	149	21.826	21.806	(1.044)	10379703	120.000	120(A)
56 Fluoranthene	202	22.953	22.927	(1.098)	9420430	120.000	140(A)
58 Benzidine	184	23.139	23.118	(1.106)	2411382	120.000	95
57 Pyrene	202	23.344	23.309	(0.917)	9823421	120.000	130(A)
$ 78 Terphenyl-d14 (SUR)	244	23.549	23.526	(0.926)	8574198	120.000	130(A)
59 Butylbenzylphthalate	149	24.334	24.313	(0.956)	5902213	120.000	130(A)
60 3,3'-Dichlorobenzidine	252	25.349	25.304	(0.996)	4003620	120.000	130(A)
61 Benzo(a)anthracene	228	25.423	25.385	(0.999)	9932001	120.000	120(A)
63 bis(2-Ethylhexyl)phthalate	149	25.349	25.324	(0.996)	10257563	120.000	140(A)
* 81 Chrysene-d12	240	25.443	25.418	(1.000)	2454624	40.0000	
62 Chrysene	228	25.517	25.465	(1.003)	8949464	120.000	120(A)
64 Di-n-octylphthalate	149	26.875	26.829	(0.914)	12967797	120.000	130(A)
65 Benzo(b)fluoranthene	252	28.151	28.056	(0.958)	9971631	120.000	140(AM)
66 Benzo(k)fluoranthene	252	28.244	28.149	(0.961)	8414601	120.000	120(A)
67 Benzo(a)pyrene	252	29.239	29.133	(0.995)	8044544	120.000	130(A)
* 84 Perylene-d12	264	29.391	29.350	(1.000)	1747299	40.0000	
68 Indeno(1,2,3-cd)pyrene	276	34.314	34.036	(1.167)	7820999	120.000	140(AM)
69 Dibenz(a,h)anthracene	278	34.415	34.175	(1.171)	7730819	120.000	140(A)
70 Benzo(g,h,i)perylene	276	35.790	35.520	(1.218)	7267623	120.000	130(AM)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

304121

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2726.d
Date : 12-OCT-1998 12:29
Client ID:
Sample Info: MSTD120

Instrument: BNAMS6.i

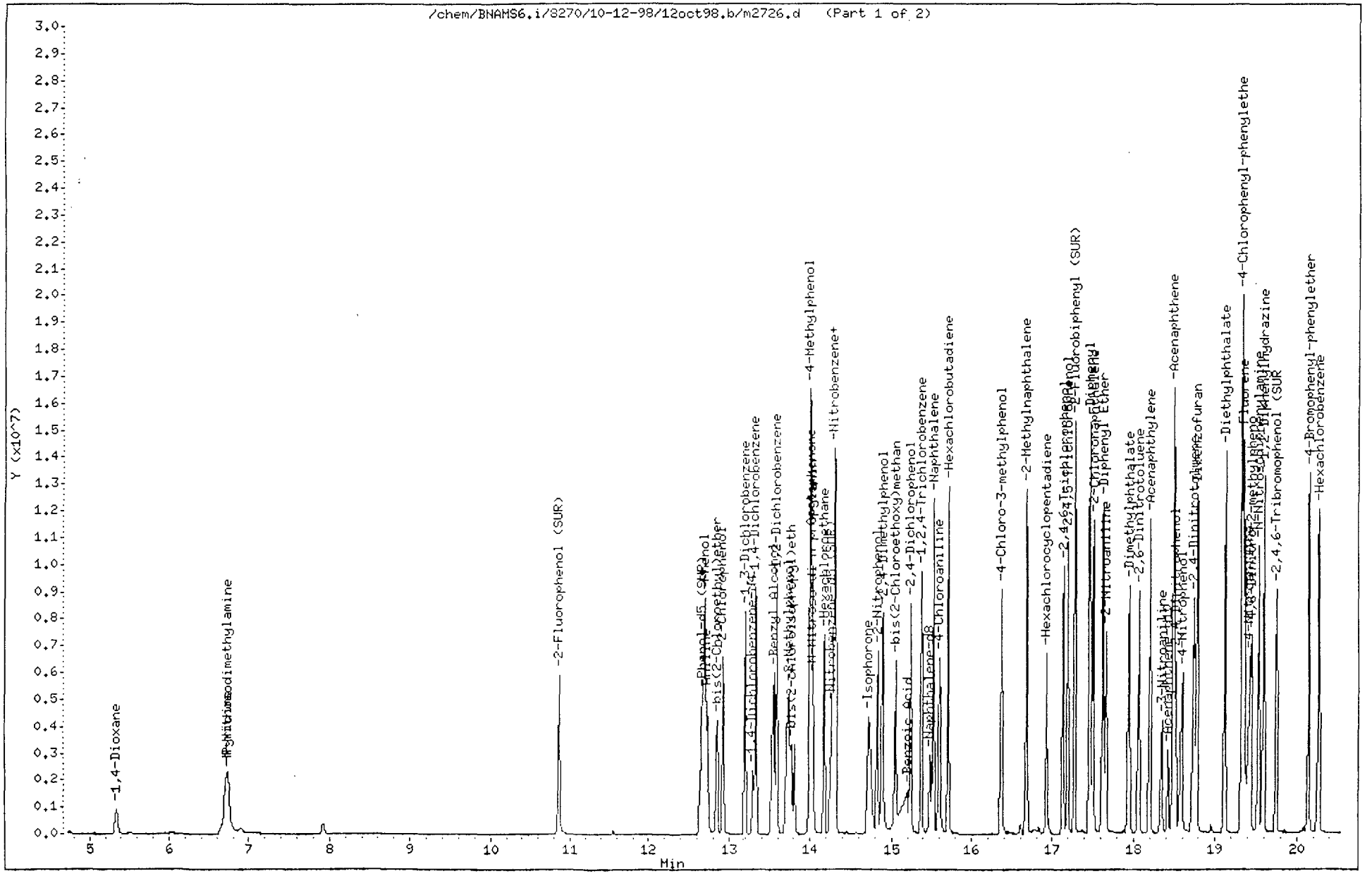
Operator: BNAMS3

304122

585

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2726.d
Date : 12-OCT-1998 12:29
Client ID:
Sample Info: MSTD120

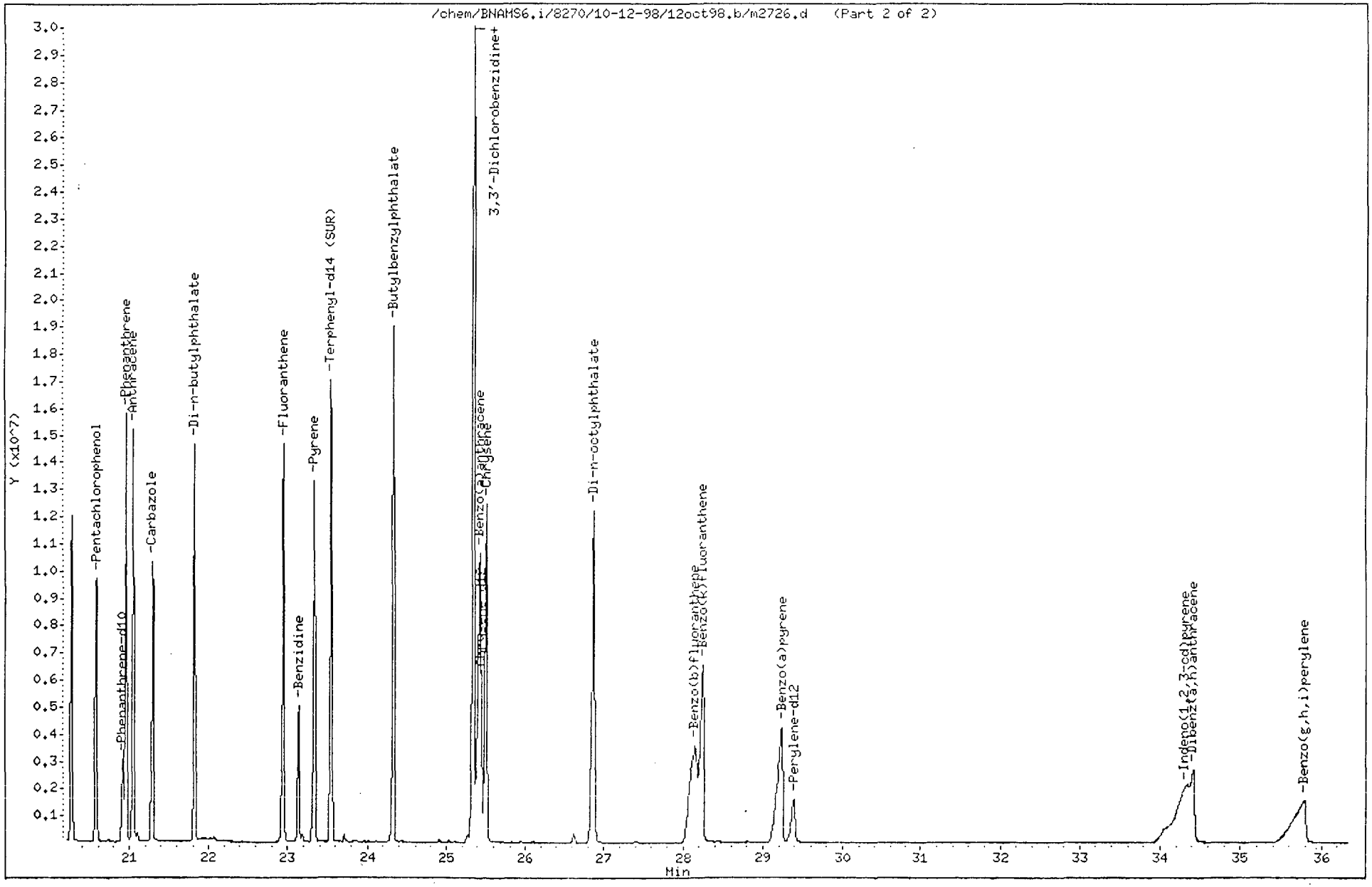
Instrument: BNAMS6.i

Operator: BNAMS3

304123

Column phase: DB-5

Column diameter: 0.25



586

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2727.d
Report Date: 09-Nov-1998 11:03

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2727.d
Lab Smp Id: MSTD080
Inj Date : 12-OCT-1998 13:15
Operator : BNAMS3 Inst ID: BNAMS6.i
Smp Info : MSTD080
Misc Info : 80 PPM BNA STD.
Comment :
Method : /chem/BNAMS6.i/8270/10-12-98/12oct98.b/8270C-REV..m
Meth Date : 14-Oct-98 15:56:17 jeri Quant Type: ISTD
Cal Date : 12-OCT-1998 10:37 Cal File: m2724.d
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	ON-COL (ug/ml)
106 1,4-Dioxane	88	5.317	5.290	(0.400)	424836	80.0000	82
19 N-Nitrosodimethylamine	74	6.701	6.620	(0.504)	847630	80.0000	83
71 Pyridine	79	6.721	6.692	(0.506)	1200020	80.0000	86
$ 16 2-Fluorophenol (SUR)	112	10.857	10.846	(0.817)	1141935	80.0000	82
$ 17 Phenol-d5 (SUR)	99	12.646	12.621	(0.951)	1495584	80.0000	80
1 Phenol	94	12.679	12.647	(0.954)	1691483	80.0000	82
73 Aniline	93	12.712	12.700	(0.956)	1856917	80.0000	79
20 bis(2-Chloroethyl)ether	93	12.844	12.818	(0.966)	1394524	80.0000	80
2 2-Chlorophenol	128	12.923	12.910	(0.972)	997133	80.0000	81
21 1,3-Dichlorobenzene	146	13.192	13.186	(0.993)	1263369	80.0000	81
* 79 1,4-Dichlorobenzene-d4	152	13.291	13.291	(1.000)	363420	40.0000	
22 1,4-Dichlorobenzene	146	13.324	13.317	(1.002)	1289178	80.0000	82
74 Benzyl Alcohol	108	13.541	13.514	(1.019)	818922	80.0000	80
23 1,2-Dichlorobenzene	146	13.587	13.580	(1.022)	1273172	80.0000	82

304124

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2727.d
Report Date: 09-Nov-1998 11:03

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
3 2-Methylphenol	108	13.719	13.699	(1.032)	1110537	80.0000	81
24 bis(2-chloroisopropyl)ether	45	13.759	13.758	(1.035)	1863608	80.0000	78(M)
4 4-Methylphenol	108	13.983	13.955	(1.052)	1237648	80.0000	82
25 N-Nitroso-di-n-propylamine	70	14.009	13.975	(1.054)	1418702	80.0000	81
104 Acetophenone	105	14.003	13.981	(1.054)	2281391	80.0000	81
26 Hexachloroethane	117	14.174	14.165	(1.066)	677112	80.0000	83
$ 76 Nitrobenzene-d5 (SUR)	82	14.260	14.238	(0.921)	2059317	80.0000	81
27 Nitrobenzene	77	14.299	14.277	(0.924)	3315968	80.0000	80
107 N,N-Dimethylaniline	120	14.293	14.277	(1.075)	2120711	80.0000	86
28 Isophorone	82	14.701	14.677	(0.950)	3544829	80.0000	79
5 2-Nitrophenol	139	14.826	14.815	(0.958)	680396	80.0000	84
6 2,4-Dimethylphenol	122	14.879	14.862	(0.961)	988835	80.0000	81
15 Benzoic Acid	122	15.149	15.013	(0.979)	639279	80.0000	86(M)
29 bis(2-Chloroethoxy)methane	93	15.044	15.026	(0.972)	1561865	80.0000	75
7 2,4-Dichlorophenol	162	15.235	15.210	(0.984)	1037862	80.0000	82
30 1,2,4-Trichlorobenzene	180	15.374	15.368	(0.993)	1246894	80.0000	80
* 80 Naphthalene-d8	136	15.480	15.474	(1.000)	1402308	40.0000	
31 Naphthalene	128	15.520	15.507	(1.003)	3282419	80.0000	80
32 4-Chloroaniline	127	15.593	15.573	(1.007)	1306303	80.0000	80
33 Hexachlorobutadiene	225	15.705	15.698	(1.015)	1165912	80.0000	82
8 4-Chloro-3-methylphenol	107	16.369	16.353	(1.057)	1483016	80.0000	81
34 2-Methylnaphthalene	142	16.679	16.668	(1.077)	2291283	80.0000	82
35 Hexachlorocyclopentadiene	237	16.923	16.918	(0.919)	709324	80.0000	90
9 2,4,6-Trichlorophenol	196	17.127	17.115	(0.930)	1036857	80.0000	82
10 2,4,5-Trichlorophenol	196	17.187	17.175	(0.933)	1135428	80.0000	85
$ 77 2-Fluorobiphenyl (SUR)	172	17.280	17.267	(0.938)	3162830	80.0000	84
102 Diphenyl	154	17.452	17.438	(0.947)	3183147	80.0000	84
36 2-Chloronaphthalene	162	17.499	17.484	(0.950)	2455682	80.0000	83
103 Diphenyl Ether	170	17.618	17.609	(0.956)	1761702	80.0000	80
37 2-Nitroaniline	65	17.658	17.636	(0.958)	1833754	80.0000	81(MH)
38 Dimethylphthalate	163	17.941	17.925	(0.974)	3501372	80.0000	81
40 2,6-Dinitrotoluene	165	18.060	18.037	(0.980)	803616	80.0000	89
39 Acenaphthylene	152	18.199	18.181	(0.988)	3800534	80.0000	82
41 3-Nitroaniline	138	18.338	18.313	(0.995)	436981	80.0000	73
* 82 Acenaphthene-d10	164	18.424	18.418	(1.000)	960104	40.0000	
42 Acenaphthene	153	18.490	18.471	(1.004)	2785593	80.0000	85
11 2,4-Dinitrophenol	184	18.517	18.498	(1.005)	827397	100.000	120
12 4-Nitrophenol	65	18.590	18.557	(1.009)	1600454	100.000	100(H)
44 2,4-Dinitrotoluene	165	18.735	18.709	(1.017)	1251709	80.0000	86
43 Dibenzofuran	168	18.775	18.762	(1.019)	4072266	80.0000	82
45 Diethylphthalate	149	19.119	19.097	(1.038)	4270263	80.0000	79
46 4-Chlorophenyl-phenylether	204	19.324	19.307	(1.049)	2036580	80.0000	84
47 Fluorene	166	19.350	19.334	(1.050)	3396870	80.0000	84
48 4-Nitroaniline	138	19.397	19.340	(1.053)	656049	80.0000	77(H)
13 4,6-Dinitro-2-methylphenol	198	19.430	19.393	(0.929)	1073811	100.000	110
49 N-Nitrosodiphenylamine	169	19.523	19.499	(0.934)	2117491	80.0000	80
75 1,2-Diphenylhydrazine	77	19.596	19.578	(0.937)	5124722	80.0000	76

304125

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2727.d
Report Date: 09-Nov-1998 11:03

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 18 2,4,6-Tribromophenol (SUR)	330	19.748	19.730	(1.072)	907593	80.0000	86
50 4-Bromophenyl-phenylether	248	20.145	20.130	(0.963)	1301957	80.0000	82
51 Hexachlorobenzene	284	20.264	20.249	(0.969)	1494555	80.0000	85
14 Pentachlorophenol	266	20.574	20.564	(0.984)	1380743	100.000	100
* 83 Phenanthrene-d10	188	20.911	20.906	(1.000)	1935559	40.0000	
52 Phenanthrene	178	20.958	20.946	(1.002)	5170218	80.0000	83
53 Anthracene	178	21.051	21.032	(1.007)	5477106	80.0000	85
54 Carbazole	167	21.295	21.275	(1.018)	4021762	80.0000	79
55 Di-n-butylphthalate	149	21.822	21.806	(1.044)	7370325	80.0000	84
56 Fluoranthene	202	22.947	22.927	(1.097)	6100642	80.0000	85
58 Benzidine	184	23.131	23.118	(1.106)	2354731	100.000	89
57 Pyrene	202	23.330	23.309	(0.917)	6289221	80.0000	86
$ 78 Terphenyl-d14 (SUR)	244	23.541	23.526	(0.926)	5513518	80.0000	86
59 Butylbenzylphthalate	149	24.325	24.313	(0.956)	3683648	80.0000	82
60 3,3'-Dichlorobenzidine	252	25.332	25.304	(0.996)	3472147	100.000	120
61 Benzo(a)anthracene	228	25.406	25.385	(0.999)	6376994	80.0000	81
63 bis(2-Ethylhexyl)phthalate	149	25.339	25.324	(0.996)	6826999	80.0000	94
* 81 Chrysene-d12	240	25.433	25.418	(1.000)	2401820	40.0000	
62 Chrysene	228	25.500	25.465	(1.003)	5911171	80.0000	84
64 Di-n-octylphthalate	149	26.855	26.829	(0.914)	8365041	80.0000	84
65 Benzo(b)fluoranthene	252	28.110	28.056	(0.957)	5952261	80.0000	83
66 Benzo(k)fluoranthene	252	28.217	28.149	(0.961)	6171019	80.0000	86(H)
67 Benzo(a)pyrene	252	29.203	29.133	(0.994)	5461006	80.0000	84
* 84 Perylene-d12	264	29.375	29.350	(1.000)	1806950	40.0000	
68 Indeno(1,2,3-cd)pyrene	276	34.157	34.036	(1.163)	4875783	80.0000	86(M)
69 Dibenz(a,h)anthracene	278	34.337	34.175	(1.169)	5051148	80.0000	88
70 Benzo(g,h,i)perylene	276	35.711	35.520	(1.216)	4995836	80.0000	84(M)

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304126

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2727.d
Date : 12-OCT-1998 13:15
Client ID:
Sample Info: MSTD080

Instrument: BNAMS6.i

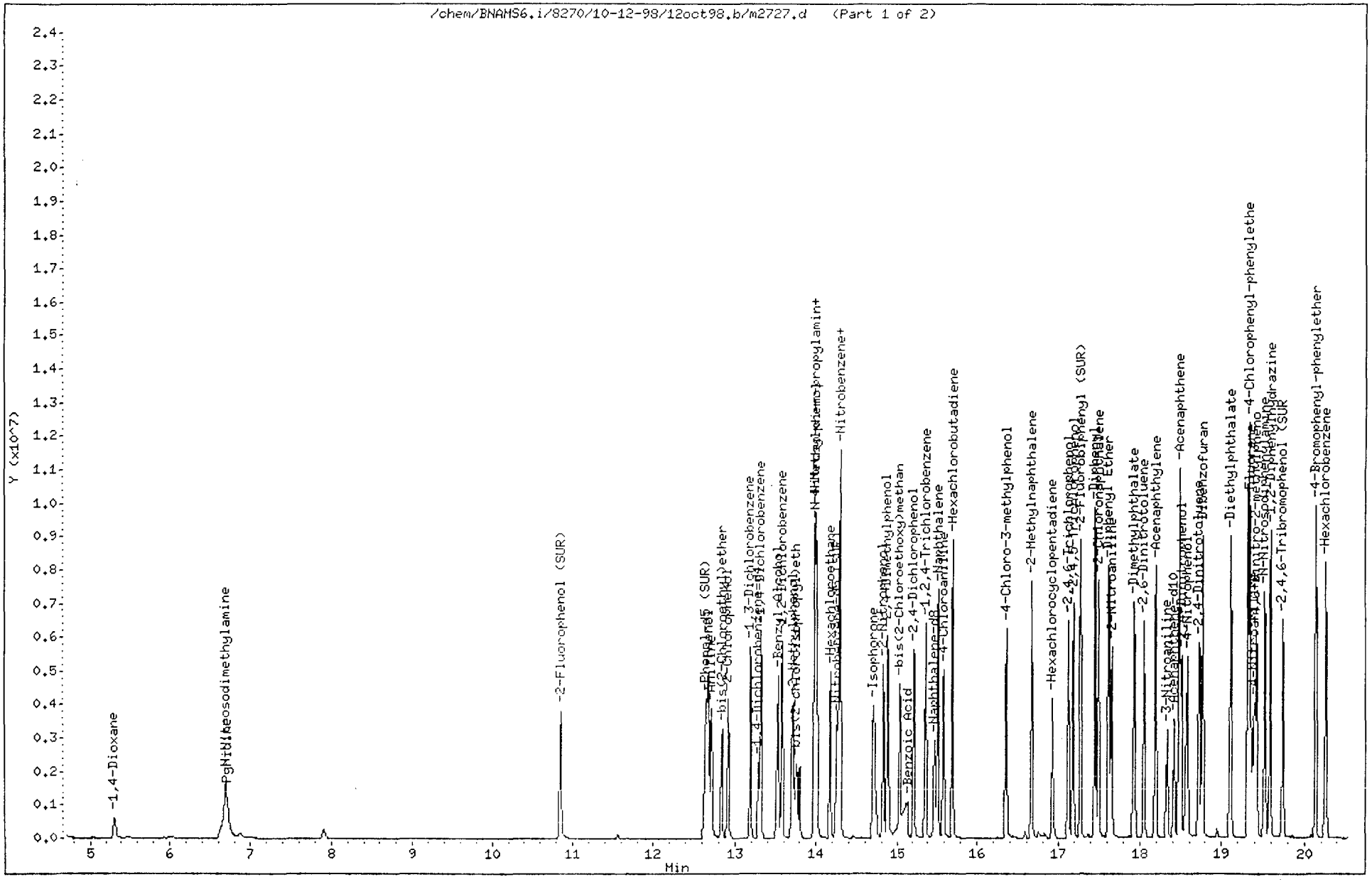
Operator: BNAMS3

304127

590

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2727.d
Date : 12-OCT-1998 13:15
Client ID:
Sample Info: MSTD080

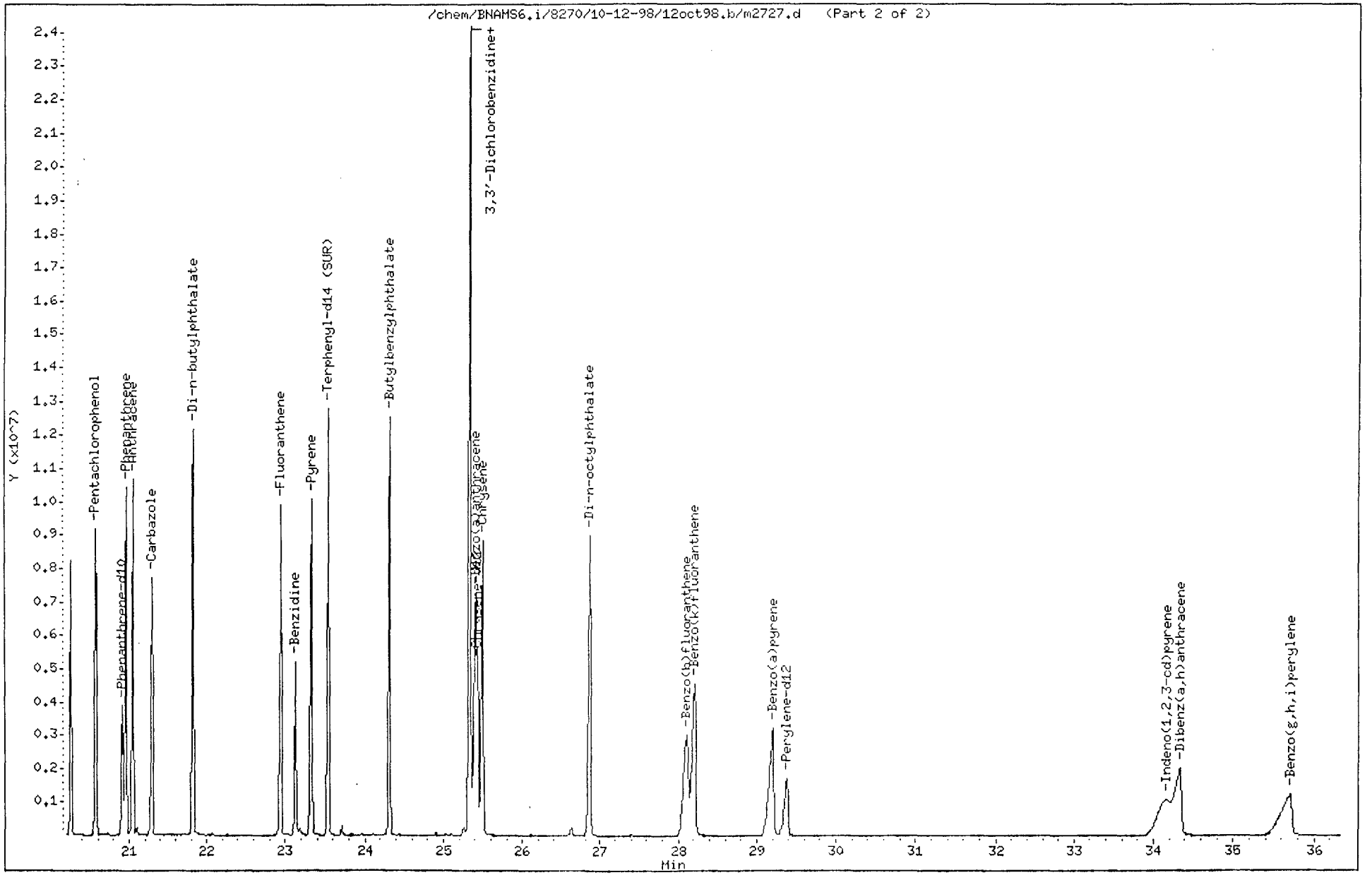
Instrument: BNAMS6.i

Operator: BNAMS3

304128

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2724.d
Report Date: 09-Nov-1998 11:02

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2724.d
Lab Smp Id: MSTD050
Inj Date : 12-OCT-1998 10:37
Operator : BNAMS3 Inst ID: BNAMS6.i
Smp Info : MSTD050
Misc Info : 50 PPM BNA STD.
Comment :
Method : /chem/BNAMS6.i/8270/10-12-98/12oct98.b/8270C-REV..m
Meth Date : 14-Oct-98 15:56:17 jeri Quant Type: ISTD
Cal Date : 12-OCT-1998 10:37 Cal File: m2724.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	5.304	5.290	(0.399)	247467	50.0000	49
19 N-Nitrosodimethylamine	74	6.660	6.620	(0.501)	489976	50.0000	50
71 Pyridine	79	6.700	6.692	(0.504)	673018	50.0000	50
$ 16 2-Fluorophenol (SUR)	112	10.847	10.846	(0.816)	654596	50.0000	49
$ 17 Phenol-d5 (SUR)	99	12.636	12.621	(0.951)	873809	50.0000	48
1 Phenol	94	12.662	12.647	(0.953)	956248	50.0000	48
73 Aniline	93	12.708	12.700	(0.956)	1058739	50.0000	47
20 bis(2-Chloroethyl)ether	93	12.833	12.818	(0.966)	819779	50.0000	49
2 2-Chlorophenol	128	12.912	12.910	(0.972)	579565	50.0000	49
21 1,3-Dichlorobenzene	146	13.188	13.186	(0.993)	720091	50.0000	48
* 79 1,4-Dichlorobenzene-d4	152	13.287	13.291	(1.000)	349653	40.0000	
22 1,4-Dichlorobenzene	146	13.320	13.317	(1.002)	735559	50.0000	48
74 Benzyl Alcohol	108	13.530	13.514	(1.018)	479233	50.0000	48
23 1,2-Dichlorobenzene	146	13.583	13.580	(1.022)	721228	50.0000	48

304129

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2724.d
Report Date: 09-Nov-1998 11:02

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	3 2-Methylphenol	108	13.708	13.699	(1.032)	638821	50.0000	49
	24 bis(2-chloroisopropyl)ether	45	13.754	13.758	(1.035)	1098442	50.0000	48(M)
	4 4-Methylphenol	108	13.971	13.955	(1.052)	667811	50.0000	46
	25 N-Nitroso-di-n-propylamine	70	13.998	13.975	(1.054)	834799	50.0000	50
	104 Acetophenone	105	13.991	13.981	(1.053)	1287657	50.0000	48
	26 Hexachloroethane	117	14.169	14.165	(1.066)	403101	50.0000	51
$	76 Nitrobenzene-d5 (SUR)	82	14.248	14.238	(0.921)	1219473	50.0000	50
	27 Nitrobenzene	77	14.287	14.277	(0.923)	1982615	50.0000	50
	107 N,N-Dimethylaniline	120	14.287	14.277	(1.075)	1154566	50.0000	49
	28 Isophorone	82	14.688	14.677	(0.949)	2131099	50.0000	50
	5 2-Nitrophenol	139	14.820	14.815	(0.958)	377799	50.0000	49
	6 2,4-Dimethylphenol	122	14.873	14.862	(0.961)	561782	50.0000	48
	15 Benzoic Acid	122	15.090	15.013	(0.975)	369195	50.0000	52(M)
	29 bis(2-Chloroethoxy)methane	93	15.038	15.026	(0.972)	914360	50.0000	46
	7 2,4-Dichlorophenol	162	15.222	15.210	(0.984)	602957	50.0000	50
	30 1,2,4-Trichlorobenzene	180	15.367	15.368	(0.993)	702720	50.0000	47
*	80 Naphthalene-d8	136	15.473	15.474	(1.000)	1337753	40.0000	
	31 Naphthalene	128	15.513	15.507	(1.003)	1823044	50.0000	47
	32 4-Chloroaniline	127	15.579	15.573	(1.007)	745274	50.0000	48
	33 Hexachlorobutadiene	225	15.704	15.698	(1.015)	684582	50.0000	51
	8 4-Chloro-3-methylphenol	107	16.360	16.353	(1.057)	876974	50.0000	50
	34 2-Methylnaphthalene	142	16.669	16.668	(1.077)	1251364	50.0000	47
	35 Hexachlorocyclopentadiene	237	16.920	16.918	(0.919)	357573	50.0000	48
	9 2,4,6-Trichlorophenol	196	17.124	17.115	(0.930)	604186	50.0000	51
	10 2,4,5-Trichlorophenol	196	17.184	17.175	(0.933)	632009	50.0000	50
$	77 2-Fluorobiphenyl (SUR)	172	17.270	17.267	(0.938)	1732326	50.0000	48
	102 Diphenyl	154	17.448	17.438	(0.947)	1677690	50.0000	47
	36 2-Chloronaphthalene	162	17.494	17.484	(0.950)	1363327	50.0000	48
	103 Diphenyl Ether	170	17.613	17.609	(0.956)	1013842	50.0000	48
	37 2-Nitroaniline	65	17.646	17.636	(0.958)	1097444	50.0000	52(M)
	38 Dimethylphthalate	163	17.930	17.925	(0.974)	2034872	50.0000	50
	40 2,6-Dinitrotoluene	165	18.048	18.037	(0.980)	446031	50.0000	52
	39 Acenaphthylene	152	18.187	18.181	(0.987)	2106088	50.0000	48
	41 3-Nitroaniline	138	18.325	18.313	(0.995)	262705	50.0000	46
*	82 Acenaphthene-d10	164	18.417	18.418	(1.000)	907898	40.0000	
	42 Acenaphthene	153	18.484	18.471	(1.004)	1498898	50.0000	49
	11 2,4-Dinitrophenol	184	18.504	18.498	(1.005)	520477	80.0000	80
	12 4-Nitrophenol	65	18.577	18.557	(1.009)	1218949	80.0000	81
	44 2,4-Dinitrotoluene	165	18.722	18.709	(1.017)	691527	50.0000	50
	43 Dibenzofuran	168	18.768	18.762	(1.019)	2276937	50.0000	48
	45 Diethylphthalate	149	19.104	19.097	(1.037)	2469831	50.0000	48
	46 4-Chlorophenyl-phenylether	204	19.315	19.307	(1.049)	1104894	50.0000	48
	47 Fluorene	166	19.342	19.334	(1.050)	1803410	50.0000	47
	48 4-Nitroaniline	138	19.375	19.340	(1.052)	460691	50.0000	57
	13 4,6-Dinitro-2-methylphenol	198	19.415	19.393	(0.929)	730564	80.0000	82
	49 N-Nitrosodiphenylamine	169	19.514	19.499	(0.933)	1190231	50.0000	49
	75 1,2-Diphenylhydrazine	77	19.587	19.578	(0.937)	3067499	50.0000	49

304130

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2724.d
Report Date: 09-Nov-1998 11:02

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 18 2,4,6-Tribromophenol (SUR)	330	19.732	19.730	(1.071)	516054	50.0000	51
50 4-Bromophenyl-phenylether	248	20.134	20.130	(0.963)	741929	50.0000	51
51 Hexachlorobenzene	284	20.253	20.249	(0.969)	850415	50.0000	52
14 Pentachlorophenol	266	20.570	20.564	(0.984)	1028670	80.0000	86
* 83 Phenanthrene-d10	188	20.906	20.906	(1.000)	1782709	40.0000	
52 Phenanthrene	178	20.953	20.946	(1.002)	2852759	50.0000	50
53 Anthracene	178	21.039	21.032	(1.006)	2975949	50.0000	50
54 Carbazole	167	21.283	21.275	(1.018)	2354903	50.0000	50
55 Di-n-butylphthalate	149	21.816	21.806	(1.043)	4169724	50.0000	51
56 Fluoranthene	202	22.932	22.927	(1.097)	3300519	50.0000	50
58 Benzidine	184	23.123	23.118	(1.106)	2007366	80.0000	82
57 Pyrene	202	23.322	23.309	(0.917)	3427763	50.0000	50
$ 78 Terphenyl-d14 (SUR)	244	23.539	23.526	(0.926)	3052283	50.0000	50
59 Butylbenzylphthalate	149	24.323	24.313	(0.957)	2045539	50.0000	48
60 3,3'-Dichlorobenzidine	252	25.323	25.304	(0.996)	2498105	80.0000	90
61 Benzo(a)anthracene	228	25.397	25.385	(0.999)	3543270	50.0000	48
63 bis(2-Ethylhexyl)phthalate	149	25.330	25.324	(0.996)	3708948	50.0000	54
* 81 Chrysene-d12	240	25.424	25.418	(1.000)	2262151	40.0000	
62 Chrysene	228	25.484	25.465	(1.002)	3258410	50.0000	49
64 Di-n-octylphthalate	149	26.845	26.829	(0.914)	4769295	50.0000	51
65 Benzo(b)fluoranthene	252	28.088	28.056	(0.956)	3253600	50.0000	48
66 Benzo(k)fluoranthene	252	28.188	28.149	(0.960)	3584389	50.0000	52
67 Benzo(a)pyrene	252	29.174	29.133	(0.993)	3154614	50.0000	52
* 84 Perylene-d12	264	29.366	29.350	(1.000)	1713329	40.0000	
68 Indeno(1,2,3-cd)pyrene	276	34.106	34.036	(1.161)	2820167	50.0000	52(M)
69 Dibenz(a,h)anthracene	278	34.273	34.175	(1.167)	2957741	50.0000	54(M)
70 Benzo(g,h,i)perylene	276	35.624	35.520	(1.213)	2958279	50.0000	52

QC Flag Legend

M - Compound response manually integrated.

304131

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2724.d
Date : 12-OCT-1998 10:37
Client ID:
Sample Info: MSTD050

Instrument: BNAMS6.i

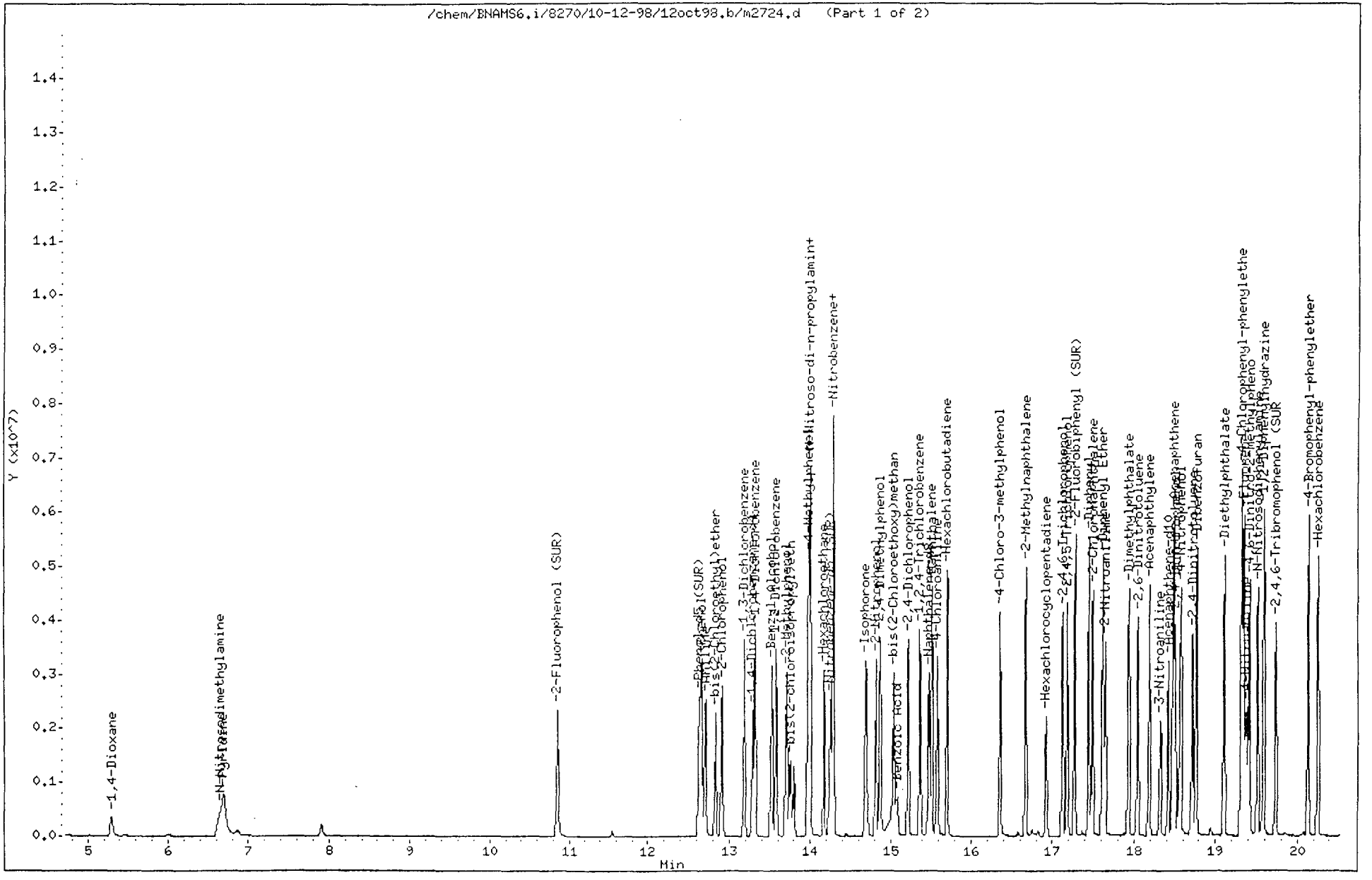
Operator: BNAMS3

Column phase: DB-5

Column diameter: 0.25

304132

595



Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2724.d
Date : 12-OCT-1998 10:37
Client ID:
Sample Info: MSTD050

Instrument: BNAMS6.i

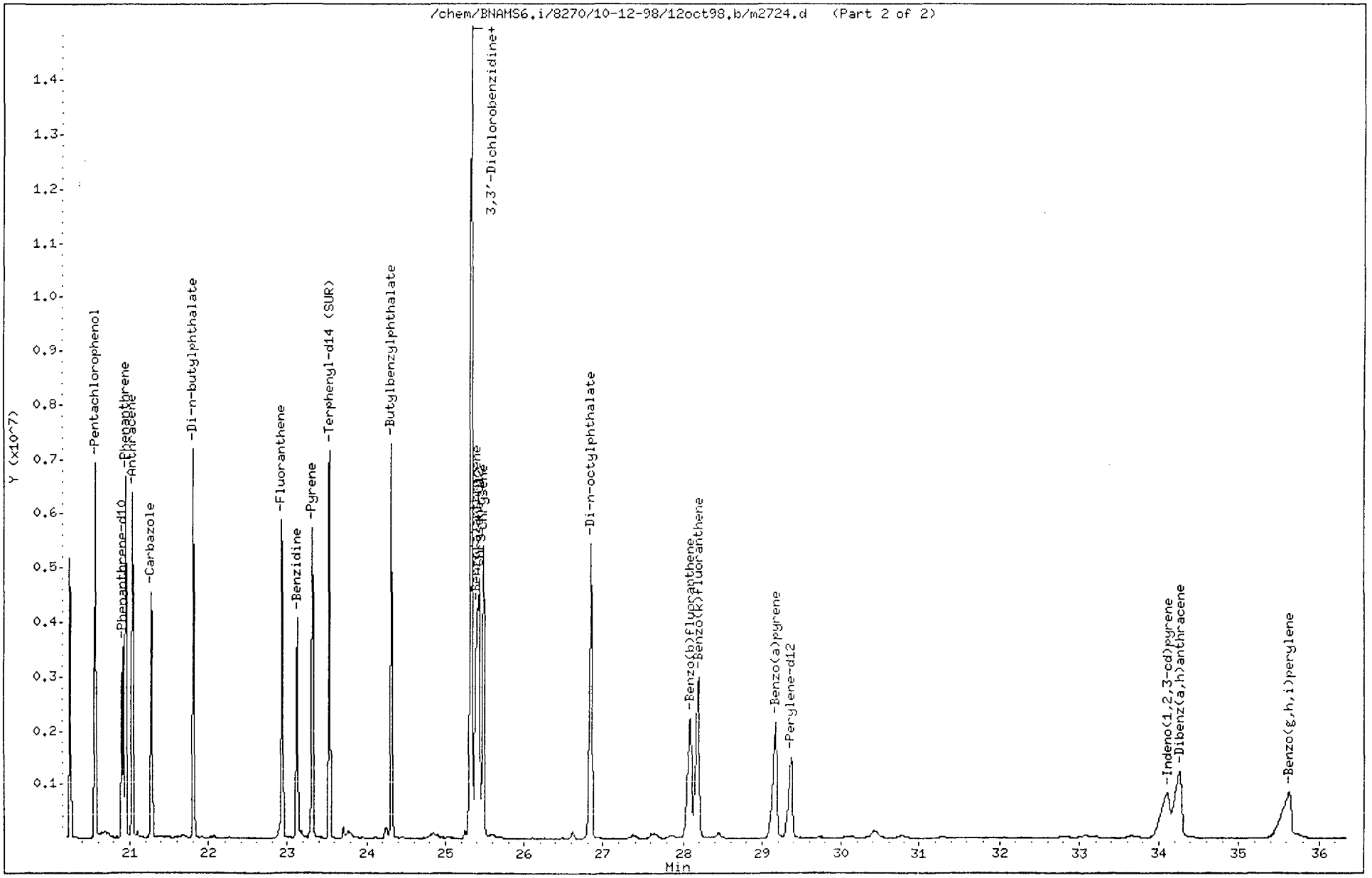
Operator: BNAMS3

Column phase: DB-5

Column diameter: 0.25

304133

596



Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2728.d
Report Date: 09-Nov-1998 11:03

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2728.d
Lab Smp Id: MSTD020
Inj Date : 12-OCT-1998 14:00
Operator : BNAMS3 Inst ID: BNAMS6.i
Smp Info : MSTD020
Misc Info : 20 PPM BNA STD.
Comment :
Method : /chem/BNAMS6.i/8270/10-12-98/12oct98.b/8270C-REV..m
Meth Date : 14-Oct-98 15:56:17 jeri Quant Type: ISTD
Cal Date : 12-OCT-1998 14:00 Cal File: m2728.d
Als bottle: 5 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	5.290	5.290	(0.398)	109078	20.0000	21(H)
19 N-Nitrosodimethylamine	74	6.620	6.620	(0.498)	207899	20.0000	21(H)
71 Pyridine	79	6.692	6.692	(0.504)	269514	20.0000	20
$ 16 2-Fluorophenol (SUR)	112	10.846	10.846	(0.816)	278677	20.0000	20
$ 17 Phenol-d5 (SUR)	99	12.621	12.621	(0.950)	387657	20.0000	21
1 Phenol	94	12.647	12.647	(0.952)	417934	20.0000	20(H)
73 Aniline	93	12.700	12.700	(0.956)	480370	20.0000	21
20 bis(2-Chloroethyl)ether	93	12.818	12.818	(0.964)	365577	20.0000	21
2 2-Chlorophenol	128	12.910	12.910	(0.971)	243876	20.0000	20
21 1,3-Dichlorobenzene	146	13.186	13.186	(0.992)	299028	20.0000	19
* 79 1,4-Dichlorobenzene-d4	152	13.291	13.291	(1.000)	360152	40.0000	
22 1,4-Dichlorobenzene	146	13.317	13.317	(1.002)	305352	20.0000	19
74 Benzyl Alcohol	108	13.514	13.514	(1.017)	210838	20.0000	21
23 1,2-Dichlorobenzene	146	13.580	13.580	(1.022)	299231	20.0000	20

304134

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2728.d
Report Date: 09-Nov-1998 11:03

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
	3 2-Methylphenol	108	13.699	13.699	(1.031)	277252	20.0000	20
	24 bis(2-chloroisopropyl)ether	45	13.758	13.758	(1.035)	488115	20.0000	20(M)
	4 4-Methylphenol	108	13.955	13.955	(1.050)	285833	20.0000	19
	25 N-Nitroso-di-n-propylamine	70	13.975	13.975	(1.051)	351026	20.0000	20
	104 Acetophenone	105	13.981	13.981	(1.052)	521901	20.0000	19
	26 Hexachloroethane	117	14.165	14.165	(1.066)	159677	20.0000	20
$	76 Nitrobenzene-d5 (SUR)	82	14.238	14.238	(0.920)	510187	20.0000	21
	27 Nitrobenzene	77	14.277	14.277	(0.923)	790449	20.0000	20
	107 N,N-Dimethylaniline	120	14.277	14.277	(1.074)	445376	20.0000	18
	28 Isophorone	82	14.677	14.677	(0.949)	902175	20.0000	21
	5 2-Nitrophenol	139	14.815	14.815	(0.957)	162933	20.0000	21
	6 2,4-Dimethylphenol	122	14.862	14.862	(0.960)	239990	20.0000	20
	15 Benzoic Acid	122	15.013	15.013	(0.970)	172734	20.0000	24(H)
	29 bis(2-Chloroethoxy)methane	93	15.026	15.026	(0.971)	396635	20.0000	20
	7 2,4-Dichlorophenol	162	15.210	15.210	(0.983)	242130	20.0000	20
	30 1,2,4-Trichlorobenzene	180	15.368	15.368	(0.993)	281743	20.0000	19
*	80 Naphthalene-d8	136	15.474	15.474	(1.000)	1355925	40.0000	
	31 Naphthalene	128	15.507	15.507	(1.002)	755285	20.0000	19
	32 4-Chloroaniline	127	15.573	15.573	(1.006)	325279	20.0000	21
	33 Hexachlorobutadiene	225	15.698	15.698	(1.014)	266817	20.0000	19
	8 4-Chloro-3-methylphenol	107	16.353	16.353	(1.057)	354316	20.0000	20
	34 2-Methylnaphthalene	142	16.668	16.668	(1.077)	510947	20.0000	19
	35 Hexachlorocyclopentadiene	237	16.918	16.918	(0.919)	128448	20.0000	16
	9 2,4,6-Trichlorophenol	196	17.115	17.115	(0.929)	234992	20.0000	19
	10 2,4,5-Trichlorophenol	196	17.175	17.175	(0.932)	250363	20.0000	19
$	77 2-Fluorobiphenyl (SUR)	172	17.267	17.267	(0.938)	678886	20.0000	18
	102 Diphenyl	154	17.438	17.438	(0.947)	662421	20.0000	18
	36 2-Chloronaphthalene	162	17.484	17.484	(0.949)	547270	20.0000	19
	103 Diphenyl Ether	170	17.609	17.609	(0.956)	402515	20.0000	18
	37 2-Nitroaniline	65	17.636	17.636	(0.958)	459512	20.0000	20
	38 Dimethylphthalate	163	17.925	17.925	(0.973)	816152	20.0000	19
	40 2,6-Dinitrotoluene	165	18.037	18.037	(0.979)	180673	20.0000	20(H)
	39 Acenaphthylene	152	18.181	18.181	(0.987)	842562	20.0000	18
	41 3-Nitroaniline	138	18.313	18.313	(0.994)	105259	20.0000	18
*	82 Acenaphthene-d10	164	18.418	18.418	(1.000)	951882	40.0000	
	42 Acenaphthene	153	18.471	18.471	(1.003)	560958	20.0000	17
	11 2,4-Dinitrophenol	184	18.498	18.498	(1.004)	332340	50.0000	48
	12 4-Nitrophenol	65	18.557	18.557	(1.008)	777043	50.0000	49
	44 2,4-Dinitrotoluene	165	18.709	18.709	(1.016)	285979	20.0000	20(H)
	43 Dibenzofuran	168	18.762	18.762	(1.019)	907667	20.0000	18
	45 Diethylphthalate	149	19.097	19.097	(1.037)	971183	20.0000	18
	46 4-Chlorophenyl-phenylether	204	19.307	19.307	(1.048)	419982	20.0000	17
	47 Fluorene	166	19.334	19.334	(1.050)	687223	20.0000	17
	48 4-Nitroaniline	138	19.340	19.340	(1.050)	192501	20.0000	23(H)
	13 4,6-Dinitro-2-methylphenol	198	19.393	19.393	(0.928)	477410	50.0000	50
	49 N-Nitrosodiphenylamine	169	19.499	19.499	(0.933)	471038	20.0000	18
	75 1,2-Diphenylhydrazine	77	19.578	19.578	(0.936)	1262753	20.0000	19

304135

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2728.d
Report Date: 09-Nov-1998 11:03

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 18 2,4,6-Tribromophenol (SUR)	330	19.730	19.730	(1.071)	194947	20.0000	18(H)
50 4-Bromophenyl-phenylether	248	20.130	20.130	(0.963)	277745	20.0000	18
51 Hexachlorobenzene	284	20.249	20.249	(0.969)	320383	20.0000	18
14 Pentachlorophenol	266	20.564	20.564	(0.984)	600355	50.0000	47
* 83 Phenanthrene-d10	188	20.906	20.906	(1.000)	1894565	40.0000	
52 Phenanthrene	178	20.946	20.946	(1.002)	1085517	20.0000	18
53 Anthracene	178	21.032	21.032	(1.006)	1144552	20.0000	18
54 Carbazole	167	21.275	21.275	(1.018)	961723	20.0000	19
55 Di-n-butylphthalate	149	21.806	21.806	(1.043)	1598075	20.0000	18
56 Fluoranthene	202	22.927	22.927	(1.097)	1258259	20.0000	18
58 Benzidine	184	23.118	23.118	(1.106)	1455943	50.0000	56
57 Pyrene	202	23.309	23.309	(0.917)	1302122	20.0000	19
$ 78 Terphenyl-d14 (SUR)	244	23.526	23.526	(0.926)	1135626	20.0000	19
59 Butylbenzylphthalate	149	24.313	24.313	(0.957)	804227	20.0000	19
60 3,3'-Dichlorobenzidine	252	25.304	25.304	(0.996)	1326297	50.0000	48
61 Benzo(a)anthracene	228	25.385	25.385	(0.999)	1395894	20.0000	19
63 bis(2-Ethylhexyl)phthalate	149	25.324	25.324	(0.996)	1194893	20.0000	17
* 81 Chrysene-d12	240	25.418	25.418	(1.000)	2260785	40.0000	
62 Chrysene	228	25.465	25.465	(1.002)	1278721	20.0000	19
64 Di-n-octylphthalate	149	26.829	26.829	(0.914)	1897973	20.0000	18
65 Benzo(b)fluoranthene	252	28.056	28.056	(0.956)	1358535	20.0000	18(H)
66 Benzo(k)fluoranthene	252	28.149	28.149	(0.959)	1468392	20.0000	20
67 Benzo(a)pyrene	252	29.133	29.133	(0.993)	1302478	20.0000	19
* 84 Perylene-d12	264	29.350	29.350	(1.000)	1876693	40.0000	
68 Indeno(1,2,3-cd)pyrene	276	34.036	34.036	(1.160)	1127173	20.0000	19(H)
69 Dibenz(a,h)anthracene	278	34.175	34.175	(1.164)	1113624	20.0000	19
70 Benzo(g,h,i)perylene	276	35.520	35.520	(1.210)	1175132	20.0000	19

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304136

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2728.d
Date : 12-OCT-1998 14:00
Client ID:
Sample Info: MSTD020

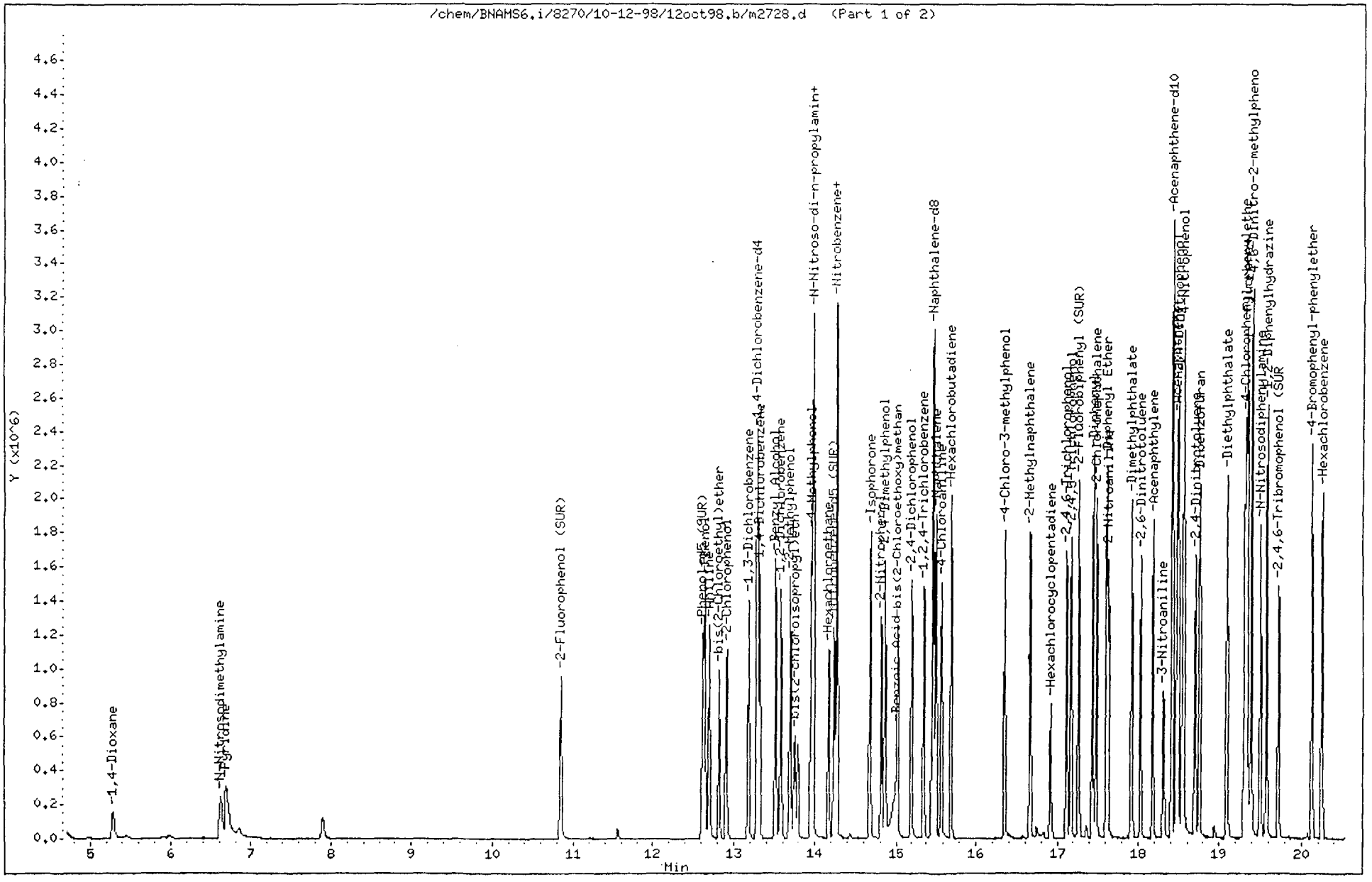
Instrument: BNAMS6.i

Operator: BNAMS3

304137

Column phase: DB-5

Column diameter: 0.25



600

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2728.d
Date : 12-OCT-1998 14:00
Client ID:
Sample Info: MSTD020

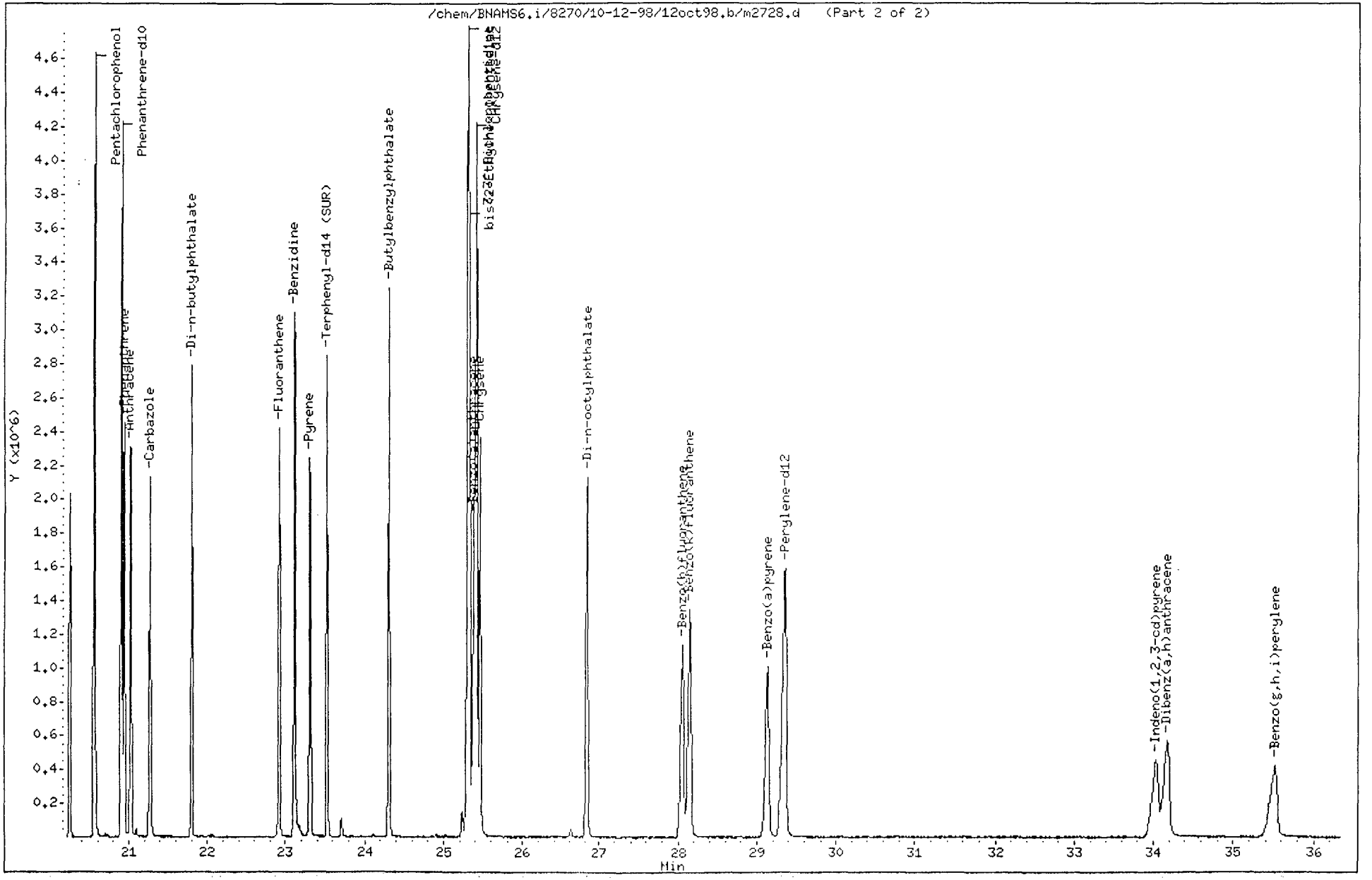
Instrument: BNAMS6.i

Operator: BNAMS3

Column phase: DB-5

Column diameter: 0.25

304138



Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2725.d
Report Date: 09-Nov-1998 11:02

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2725.d
Lab Smp Id: MSTD05-soil
Inj Date : 12-OCT-1998 11:35
Operator : BNAMS3 Inst ID: BNAMS6.i
Smp Info : MSTD05-soil
Misc Info : 5 PPM BNA STD. soil
Comment :
Method : /chem/BNAMS6.i/8270/10-12-98/12oct98.b/8270C-REV..m
Meth Date : 14-Oct-98 15:56:17 jeri Quant Type: ISTD
Cal Date : 12-OCT-1998 10:37 Cal File: m2724.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	5.271	5.290	(0.397)	20935	5.00000	4.4(aM)
19 N-Nitrosodimethylamine	74	6.607	6.620	(0.497)	40618	5.00000	4.4(aM)
71 Pyridine	79	6.711	6.692	(0.505)	56275	5.00000	4.5(aM)
$ 16 2-Fluorophenol (SUR)	112	10.837	10.846	(0.816)	61773	5.00000	4.9(a)
$ 17 Phenol-d5 (SUR)	99	12.606	12.621	(0.949)	84836	5.00000	5.0(H)
1 Phenol	94	12.632	12.647	(0.951)	89166	5.00000	4.8(aH)
73 Aniline	93	12.691	12.700	(0.955)	110161	5.00000	5.2
20 bis(2-Chloroethyl)ether	93	12.809	12.818	(0.964)	7327	0.50000	0.47(a)
2 2-Chlorophenol	128	12.901	12.910	(0.971)	53726	5.00000	4.8(a)
21 1,3-Dichlorobenzene	146	13.183	13.186	(0.992)	69376	5.00000	4.9(a)
* 79 1,4-Dichlorobenzene-d4	152	13.288	13.291	(1.000)	328702	40.0000	
22 1,4-Dichlorobenzene	146	13.314	13.317	(1.002)	66821	5.00000	4.7(a)
74 Benzyl Alcohol	108	13.504	13.514	(1.016)	47060	5.00000	5.0
23 1,2-Dichlorobenzene	146	13.577	13.580	(1.022)	64282	5.00000	4.6(a)

304139

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2725.d
Report Date: 09-Nov-1998 11:02

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
3 2-Methylphenol	108	13.688	13.699	(1.030)	60572	5.00000	4.9(a)
24 bis(2-chloroisopropyl)ether	45	13.754	13.758	(1.035)	121419	5.00000	5.6
4 4-Methylphenol	108	13.944	13.955	(1.049)	63086	5.00000	4.6(a)
25 N-Nitroso-di-n-propylamine	70	13.964	13.975	(1.051)	7670	0.50000	0.48(aM)
104 Acetophenone	105	13.970	13.981	(1.051)	123448	5.00000	4.9(a)
26 Hexachloroethane	117	14.167	14.165	(1.066)	3129	0.50000	0.42(a)
$ 76 Nitrobenzene-d5 (SUR)	82	14.233	14.238	(0.920)	107197	5.00000	4.7(a)
27 Nitrobenzene	77	14.266	14.277	(0.922)	18946	0.50000	0.51
107 N,N-Dimethylaniline	120	14.266	14.277	(1.074)	9928	0.50000	0.44(a)
28 Isophorone	82	14.665	14.677	(0.948)	205293	5.00000	5.1
5 2-Nitrophenol	139	14.809	14.815	(0.958)	31232	5.00000	4.3(a)
6 2,4-Dimethylphenol	122	14.849	14.862	(0.960)	52958	5.00000	4.9(a)
15 Benzoic Acid	122	14.934	15.013	(0.966)	21210	5.00000	3.2(aMH)
29 bis(2-Chloroethoxy)methane	93	15.020	15.026	(0.971)	113102	5.00000	6.1
7 2,4-Dichlorophenol	162	15.203	15.210	(0.983)	49899	5.00000	4.4(a)
30 1,2,4-Trichlorobenzene	180	15.361	15.368	(0.993)	7178	0.50000	0.52
* 80 Naphthalene-d8	136	15.466	15.474	(1.000)	1255188	40.0000	
31 Naphthalene	128	15.499	15.507	(1.002)	181439	5.00000	5.0
32 4-Chloroaniline	127	15.571	15.573	(1.007)	75439	5.00000	5.2
33 Hexachlorobutadiene	225	15.696	15.698	(1.015)	11203	1.00000	0.88(a)
8 4-Chloro-3-methylphenol	107	16.351	16.353	(1.057)	76837	5.00000	4.7(a)
34 2-Methylnaphthalene	142	16.665	16.668	(1.078)	118934	5.00000	4.7(a)
35 Hexachlorocyclopentadiene	237	16.921	16.918	(0.919)	29774	5.00000	4.2(aM)
9 2,4,6-Trichlorophenol	196	17.111	17.115	(0.929)	50598	5.00000	4.4(a)
10 2,4,5-Trichlorophenol	196	17.170	17.175	(0.932)	51289	5.00000	4.3(a)
$ 77 2-Fluorobiphenyl (SUR)	172	17.263	17.267	(0.937)	151755	5.00000	4.4(a)
102 Diphenyl	154	17.433	17.438	(0.947)	150743	5.00000	4.4(a)
36 2-Chloronaphthalene	162	17.479	17.484	(0.949)	120885	5.00000	4.5(a)
103 Diphenyl Ether	170	17.604	17.609	(0.956)	98388	5.00000	4.9(a)
37 2-Nitroaniline	65	17.630	17.636	(0.957)	184098	10.0000	9.1(a)
38 Dimethylphthalate	163	17.912	17.925	(0.973)	188126	5.00000	4.8(a)
40 2,6-Dinitrotoluene	165	18.024	18.037	(0.979)	5651	1.00000	0.69(a)
39 Acenaphthylene	152	18.174	18.181	(0.987)	190450	5.00000	4.6(a)
41 3-Nitroaniline	138	18.312	18.313	(0.994)	72080	10.0000	13
* 82 Acenaphthene-d10	164	18.418	18.418	(1.000)	865607	40.0000	
42 Acenaphthene	153	18.464	18.471	(1.002)	127974	5.00000	4.4(a)
11 2,4-Dinitrophenol	184	18.484	18.498	(1.004)	64449	20.0000	10(aH)
12 4-Nitrophenol	65	18.543	18.557	(1.007)	274252	20.0000	19(a)
44 2,4-Dinitrotoluene	165	18.694	18.709	(1.015)	10808	1.00000	0.82(aM)
43 Dibenzofuran	168	18.753	18.762	(1.018)	205893	5.00000	4.6(a)
45 Diethylphthalate	149	19.088	19.097	(1.036)	259947	5.00000	5.3
46 4-Chlorophenyl-phenylether	204	19.304	19.307	(1.048)	96209	5.00000	4.4(a)
47 Fluorene	166	19.324	19.334	(1.049)	163250	5.00000	4.5(a)
48 4-Nitroaniline	138	19.324	19.340	(1.049)	65383	10.0000	8.5(a)
13 4,6-Dinitro-2-methylphenol	198	19.377	19.393	(0.927)	122890	20.0000	14(a)
49 N-Nitrosodiphenylamine	169	19.495	19.499	(0.933)	119063	5.00000	5.0(H)
75 1,2-Diphenylhydrazine	77	19.568	19.578	(0.936)	339270	5.00000	5.6

304140

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2725.d
Report Date: 09-Nov-1998 11:02

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 18 2,4,6-Tribromophenol (SUR)	330	19.719	19.730	(1.071)	39902	5.00000	4.2(a)
50 4-Bromophenyl-phenylether	248	20.125	20.130	(0.963)	66197	5.00000	4.6(a)
51 Hexachlorobenzene	284	20.243	20.249	(0.968)	6438	0.50000	0.40(a)
14 Pentachlorophenol	266	20.558	20.564	(0.983)	188997	20.0000	16(a)
* 83 Phenanthrene-d10	188	20.906	20.906	(1.000)	1746482	40.0000	
52 Phenanthrene	178	20.939	20.946	(1.002)	257119	5.00000	4.6(a)
53 Anthracene	178	21.024	21.032	(1.006)	246216	5.00000	4.2(a)
54 Carbazole	167	21.267	21.275	(1.017)	233768	5.00000	5.1
55 Di-n-butylphthalate	149	21.804	21.806	(1.043)	389060	5.00000	4.9(a)
56 Fluoranthene	202	22.918	22.927	(1.096)	294108	5.00000	4.5(a)
58 Benzidine	184	23.115	23.118	(1.106)	559393	20.0000	23
57 Pyrene	202	23.305	23.309	(0.917)	286496	5.00000	4.6(a)
$ 78 Terphenyl-d14 (SUR)	244	23.522	23.526	(0.926)	249568	5.00000	4.5(a)
59 Butylbenzylphthalate	149	24.308	24.313	(0.957)	191312	5.00000	5.0
60 3,3'-Dichlorobenzidine	252	25.286	25.304	(0.995)	158120	10.0000	6.3(a)
61 Benzo(a)anthracene	228	25.372	25.385	(0.999)	36289	0.50000	0.54
63 bis(2-Ethylhexyl)phthalate	149	25.319	25.324	(0.997)	230166	5.00000	3.7(a)
* 81 Chrysene-d12	240	25.406	25.418	(1.000)	2057156	40.0000	
62 Chrysene	228	25.452	25.465	(1.002)	282676	5.00000	4.7(a)
64 Di-n-octylphthalate	149	26.822	26.829	(0.914)	423787	5.00000	4.4(a)
65 Benzo(b)fluoranthene	252	28.029	28.056	(0.955)	29882	0.50000	0.44(aH)
66 Benzo(k)fluoranthene	252	28.108	28.149	(0.958)	30988	0.50000	0.45(a)
67 Benzo(a)pyrene	252	29.104	29.133	(0.992)	26859	0.50000	0.43(a)
* 84 Perylene-d12	264	29.347	29.350	(1.000)	1729439	40.0000	
68 Indeno(1,2,3-cd)pyrene	276	33.961	34.036	(1.157)	20195	0.50000	0.37(a)
69 Dibenz(a,h)anthracene	278	34.119	34.175	(1.163)	20211	0.50000	0.37(aM)
70 Benzo(g,h,i)perylene	276	35.436	35.520	(1.207)	252295	5.00000	4.4(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304141

Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2725.d
Date : 12-OCT-1998 11:35
Client ID:
Sample Info: MSTD05-soil

Instrument: BNAMS6.i

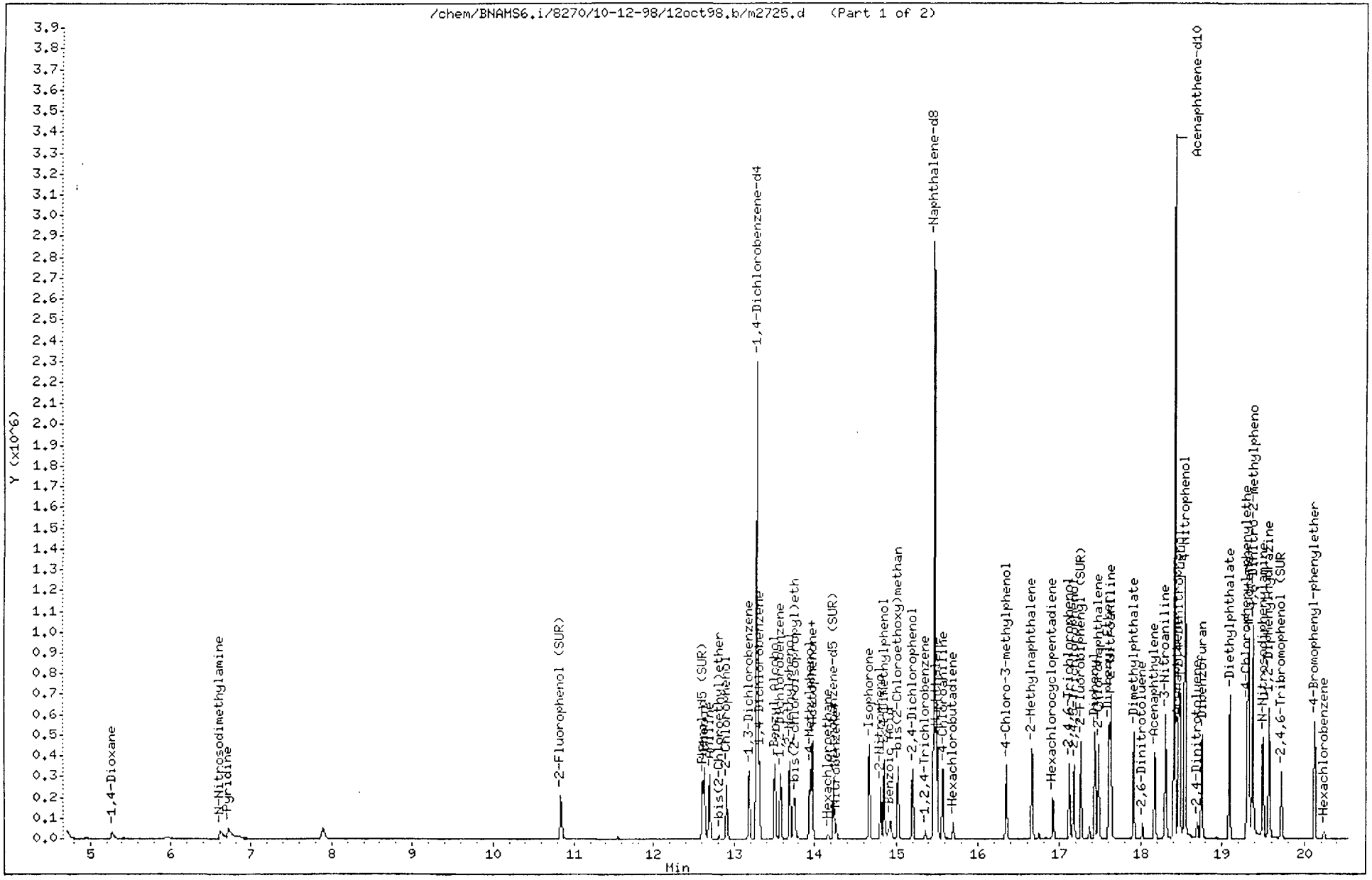
Operator: BNAMS3

304142

605

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS6.i/8270/10-12-98/12oct98.b/m2725.d
Date : 12-OCT-1998 11:35
Client ID:
Sample Info: MSTD05-soil

Instrument: BNAMS6.i

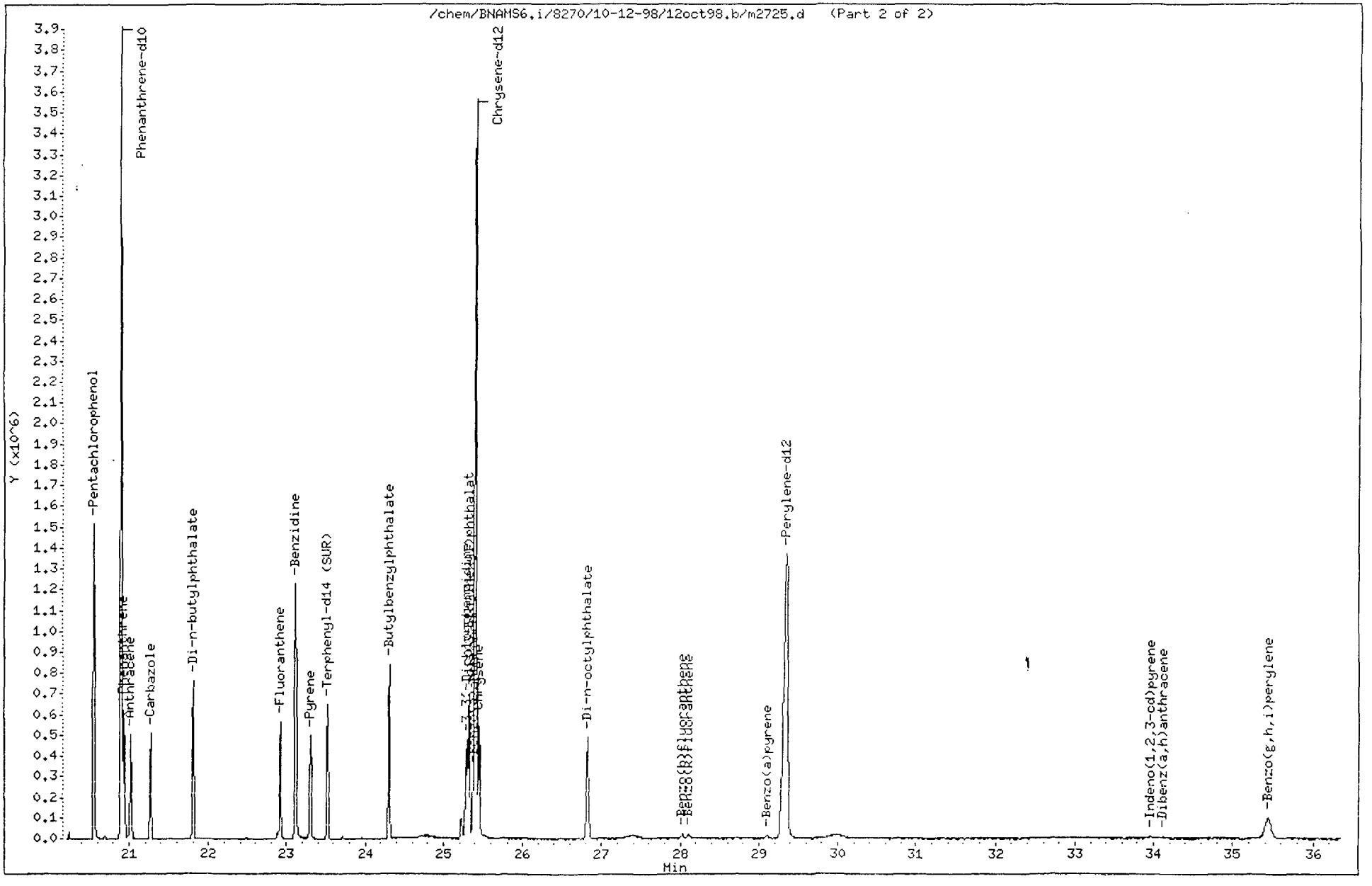
Operator: BNAMS3

304143

606

Column phase: DB-5

Column diameter: 0.25



SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK
METHOD 8270C

Instrument ID: BNAMS6 Calibration Date: 10/15/98 Time: 1055

Lab File ID: M2809 Init. Calib. Date(s): 10/12/98 10/12/98

Init. Calib. Times: 1037 1400

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Phenol	2.281	2.179		4.5	20.0
2-Chlorophenol	1.348	1.309		2.9	20.0
2-Methylphenol	1.501	1.428		4.9	20.0
4-Methylphenol	1.669	1.574		5.7	20.0
2-Nitrophenol	0.229	0.230		-0.0	20.0
2,4-Dimethylphenol	0.347	0.342		1.4	20.0
2,4-Dichlorophenol	0.359	0.376		-4.7	20.0
4-Chloro-3-methylphenol	0.521	0.568		-9.0	20.0
2,4,6-Trichlorophenol	0.524	0.548		-4.4	20.0
2,4,5-Trichlorophenol	0.554	0.591		-6.5	20.0
2,4-Dinitrophenol	0.288	0.256	0.05	11.1	20.0
4-Nitrophenol	0.660	0.701	0.05	-6.2	20.0
4,6-Dinitro-2-methylphenol	0.200	0.200		0.0	20.0
Pentachlorophenol	0.269	0.270		-0.0	20.0
Benzoic Acid	0.212	0.152		28.3	20.0
N-Nitrosodimethylamine	1.119	1.076		3.8	20.0
bis(2-Chloroethyl)ether	1.908	1.789		6.2	20.0
1,3-Dichlorobenzene	1.717	1.575		8.3	20.0
1,4-Dichlorobenzene	1.740	1.603		7.9	20.0
1,2-Dichlorobenzene	1.701	1.599		6.0	20.0
bis(2-chloroisopropyl)ether	2.639	2.355		10.8	20.0
N-Nitroso-di-n-propylamine	1.927	2.000	0.05	-3.6	20.0
Hexachloroethane	0.897	1.011		-12.7	20.0
Nitrobenzene	1.182	1.365		-15.3	20.0
Isophorone	1.278	1.348		-5.3	20.0
bis(2-Chloroethoxy)methane	0.594	0.564		5.0	20.0
1,2,4-Trichlorobenzene	0.443	0.437		1.4	20.0
Naphthalene	1.166	1.094		6.2	20.0
4-Chloroaniline	0.464	0.456		1.7	20.0
Hexachlorobutadiene	0.404	0.462		-14.2	20.0
2-Methylnaphthalene	0.799	0.760		4.9	20.0
Hexachlorocyclopentadiene	0.328	0.344	0.05	-4.7	20.0
2-Chloronaphthalene	1.236	1.187		4.0	20.0
2-Nitroaniline	0.939	1.044		-11.0	20.0
Dimethylphthalate	1.798	1.872		-4.1	20.0
Acenaphthylene	1.918	1.902		0.8	20.0
2,6-Dinitrotoluene	0.378	0.398		-5.1	20.0

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS6 Calibration Date: 10/15/98 Time: 1055

Lab File ID: M2809 Init. Calib. Date(s): 10/12/98 10/12/98

Init. Calib. Times: 1037 1400

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
3-Nitroaniline	0.248	0.222		10.5	20.0
Acenaphthene	1.358	1.290		5.0	20.0
Dibenzofuran	2.069	1.992		3.7	20.0
2,4-Dinitrotoluene	0.609	0.607		0.3	20.0
Diethylphthalate	2.255	2.341		-3.8	20.0
4-Chlorophenyl-phenylether	1.009	1.066		-5.6	20.0
Fluorene	1.679	1.709		-1.6	20.0
4-Nitroaniline	0.354	0.407		-14.8	20.0
N-Nitrosodiphenylamine	0.546	0.525		3.8	20.0
4-Bromophenyl-phenylether	0.329	0.345		-4.7	20.0
Hexachlorobenzene	0.365	0.397		-8.6	20.0
Phenanthrene	1.293	1.298		-0.0	20.0
Anthracene	1.333	1.370		-2.6	20.0
Carbazole	1.051	1.096		-4.1	20.0
Di-n-butylphthalate	1.823	1.978		-8.5	20.0
Fluoranthene	1.486	1.533		-3.0	20.0
Pyrene	1.224	1.140		6.9	20.0
Benzidine	0.548	0.532		2.9	20.0
Butylbenzylphthalate	0.749	0.720		3.9	20.0
3,3'-Dichlorobenzidine	0.490	0.569		-16.1	20.0
Benzo(a)anthracene	1.315	1.262		4.0	20.0
Chrysene	1.165	1.159		0.5	20.0
bis(2-Ethylhexyl)phthalate	1.216	1.355		-11.4	20.0
Di-n-octylphthalate	2.200	2.138		2.8	20.0
Benzo(b)fluoranthene	1.580	1.538		2.6	20.0
Benzo(k)fluoranthene	1.597	1.702		-6.4	20.0
Benzo(a)pyrene	1.430	1.474		-2.9	20.0
Indeno(1,2,3-cd)pyrene	1.259	1.354		-7.5	20.0
Dibenz(a,h)anthracene	1.275	1.419		-11.1	20.0
Benzo(g,h,i)perylene	1.314	1.461		-11.0	20.0
Pyridine	1.535	1.496		2.5	20.0
Aniline	2.578	2.502		2.9	20.0
Benzyl Alcohol	1.133	1.107		2.3	20.0
1,2-Diphenylhydrazine	1.391	1.398		-0.0	20.0
Diphenyl	1.572	1.446		8.0	20.0
Diphenyl Ether	0.920	0.892		3.0	20.0
Acetophenone	3.081	3.087	0.01	-0.0	20.0

304145

SEMIVOLATILE ORGANICS CONTINUING CALIBRATION CHECK(cont'd)
METHOD 8270C

Instrument ID: BNAMS6 Calibration Date: 10/15/98 Time: 1055

Lab File ID: M2809 Init. Calib. Date(s): 10/12/98 10/12/98

Init. Calib. Times: 1037 1400

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
1,4-Dioxane	0.572	0.578	0.01	-1.0	20.0
N,N-Dimethylaniline	2.717	2.664	0.01	2.0	20.0
2-Fluorophenol (SUR)	1.538	1.455		5.4	20.0
Phenol-d5 (SUR)	2.061	1.978		4.0	20.0
2,4,6-Tribromophenol (SUR)	0.442	0.489		-10.6	20.0
Nitrobenzene-d5 (SUR)	0.726	0.782		-7.7	20.0
2-Fluorobiphenyl (SUR)	1.577	1.561		1.0	20.0
Terphenyl-d14 (SUR)	1.073	1.109		-3.2	20.0

Data File: /chem/BNAMS6.i/8270/10-12-98/15oct98.b/m2809.d
Report Date: 09-Nov-1998 11:03

Envirotech Research, Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS6.i/8270/10-12-98/15oct98.b/m2809.d
Lab Smp Id: MSTD288
Inj Date : 15-OCT-1998 10:55
Operator : BNAMS3 Inst ID: BNAMS6.i
Smp Info : MSTD288
Misc Info : 50 PPM BNA STD.
Comment :
Method : /chem/BNAMS6.i/8270/10-12-98/15oct98.b/8270C-REV..m
Meth Date : 15-Oct-98 11:24:59 Quant Type: ISTD
Cal Date : 12-OCT-1998 14:00 Cal File: m2728.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.40
Processing Host: hp735

Concentration Formula: Amt * DF * Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
106 1,4-Dioxane	88	5.251	5.251	(0.396)	193227	50.0000	50
19 N-Nitrosodimethylamine	74	6.595	6.595	(0.498)	359663	50.0000	48
71 Pyridine	79	6.634	6.634	(0.501)	499694	50.0000	49
$ 16 2-Fluorophenol (SUR)	112	10.820	10.820	(0.816)	486234	50.0000	47
$ 17 Phenol-d5 (SUR)	99	12.608	12.608	(0.951)	660765	50.0000	48
1 Phenol	94	12.635	12.635	(0.953)	728078	50.0000	48
73 Aniline	93	12.674	12.674	(0.956)	836063	50.0000	48
20 bis(2-Chloroethyl)ether	93	12.799	12.799	(0.966)	597695	50.0000	47
2 2-Chlorophenol	128	12.885	12.885	(0.972)	437343	50.0000	48
21 1,3-Dichlorobenzene	146	13.154	13.154	(0.993)	526069	50.0000	46
* 79 1,4-Dichlorobenzene-d4	152	13.252	13.252	(1.000)	267273	40.0000	
22 1,4-Dichlorobenzene	146	13.286	13.286	(1.002)	535575	50.0000	46
74 Benzyl Alcohol	108	13.495	13.495	(1.018)	369955	50.0000	49
23 1,2-Dichlorobenzene	146	13.548	13.548	(1.022)	534139	50.0000	47

304147

Data File: /chem/BNAMS6.i/8270/10-12-98/15oct98.b/m2809.d
Report Date: 09-Nov-1998 11:03

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
3 2-Methylphenol	108	13.680	13.680	(1.032)	476944	50.0000	48
24 bis(2-chloroisopropyl)ether	45	13.726	13.726	(1.036)	786795	50.0000	45(M)
4 4-Methylphenol	108	13.943	13.943	(1.052)	525764	50.0000	47
25 N-Nitroso-di-n-propylamine	70	13.963	13.963	(1.054)	668156	50.0000	52
104 Acetophenone	105	13.956	13.956	(1.053)	1031324	50.0000	50
26 Hexachloroethane	117	14.134	14.134	(1.067)	337720	50.0000	56
$ 76 Nitrobenzene-d5 (SUR)	82	14.219	14.219	(0.921)	975892	50.0000	54
27 Nitrobenzene	77	14.253	14.253	(0.923)	1702192	50.0000	58
107 N,N-Dimethylaniline	120	14.253	14.253	(1.075)	890000	50.0000	49
28 Isophorone	82	14.659	14.659	(0.950)	1681228	50.0000	53
5 2-Nitrophenol	139	14.784	14.784	(0.958)	287531	50.0000	50
6 2,4-Dimethylphenol	122	14.837	14.837	(0.961)	427297	50.0000	49
15 Benzoic Acid	122	15.055	15.055	(0.975)	189643	50.0000	36(M)
29 bis(2-Chloroethoxy)methane	93	15.002	15.002	(0.972)	703371	50.0000	47
7 2,4-Dichlorophenol	162	15.193	15.193	(0.984)	469350	50.0000	52
30 1,2,4-Trichlorobenzene	180	15.338	15.338	(0.994)	544806	50.0000	49
* 80 Naphthalene-d8	136	15.437	15.437	(1.000)	997881	40.0000	
31 Naphthalene	128	15.477	15.477	(1.003)	1365032	50.0000	47
32 4-Chloroaniline	127	15.549	15.549	(1.007)	568437	50.0000	49
33 Hexachlorobutadiene	225	15.668	15.668	(1.015)	575690	50.0000	57
8 4-Chloro-3-methylphenol	107	16.330	16.330	(1.058)	708152	50.0000	54
34 2-Methylnaphthalene	142	16.633	16.633	(1.077)	948229	50.0000	48
35 Hexachlorocyclopentadiene	237	16.883	16.883	(0.918)	303777	50.0000	52
9 2,4,6-Trichlorophenol	196	17.087	17.087	(0.929)	483330	50.0000	52
10 2,4,5-Trichlorophenol	196	17.146	17.146	(0.933)	521170	50.0000	53
$ 77 2-Fluorobiphenyl (SUR)	172	17.232	17.232	(0.937)	1376338	50.0000	49
102 Diphenyl	154	17.410	17.410	(0.947)	1275324	50.0000	46
36 2-Chloronaphthalene	162	17.457	17.457	(0.949)	1046969	50.0000	48
103 Diphenyl Ether	170	17.575	17.575	(0.956)	786747	50.0000	48
37 2-Nitroaniline	65	17.615	17.615	(0.958)	920097	50.0000	56(M)
38 Dimethylphthalate	163	17.898	17.898	(0.973)	1650409	50.0000	52
40 2,6-Dinitrotoluene	165	18.010	18.010	(0.980)	350756	50.0000	53
39 Acenaphthylene	152	18.155	18.155	(0.987)	1677413	50.0000	50
41 3-Nitroaniline	138	18.293	18.293	(0.995)	195504	50.0000	45
* 82 Acenaphthene-d10	164	18.385	18.385	(1.000)	705389	40.0000	
42 Acenaphthene	153	18.445	18.445	(1.003)	1137636	50.0000	48
11 2,4-Dinitrophenol	184	18.472	18.472	(1.005)	361708	80.0000	71
12 4-Nitrophenol	65	18.551	18.551	(1.009)	989156	80.0000	85
44 2,4-Dinitrotoluene	165	18.690	18.690	(1.017)	534905	50.0000	50
43 Dibenzofuran	168	18.729	18.729	(1.019)	1756111	50.0000	48
45 Diethylphthalate	149	19.072	19.072	(1.037)	2063866	50.0000	52
46 4-Chlorophenyl-phenylether	204	19.276	19.276	(1.048)	940180	50.0000	53
47 Fluorene	166	19.302	19.302	(1.050)	1507300	50.0000	51
48 4-Nitroaniline	138	19.336	19.336	(1.052)	359054	50.0000	58
13 4,6-Dinitro-2-methylphenol	198	19.382	19.382	(0.929)	580807	80.0000	80
49 N-Nitrosodiphenylamine	169	19.475	19.475	(0.933)	950121	50.0000	48
75 1,2-Diphenylhydrazine	77	19.547	19.547	(0.937)	2531954	50.0000	50

304148

Data File: /chem/BNAMS6.i/8270/10-12-98/15oct98.b/m2809.d
Report Date: 09-Nov-1998 11:03

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/ml)	AMOUNTS ON-COL (ug/ml)
$ 18 2,4,6-Tribromophenol (SUR)	330	19.699	19.699	(1.071)	431596	50.0000	55
50 4-Bromophenyl-phenylether	248	20.101	20.101	(0.963)	625494	50.0000	52
51 Hexachlorobenzene	284	20.220	20.220	(0.969)	718679	50.0000	54
14 Pentachlorophenol	266	20.536	20.536	(0.984)	780900	80.0000	80
* 83 Phenanthrene-d10	188	20.872	20.872	(1.000)	1448718	40.0000	
52 Phenanthrene	178	20.918	20.918	(1.002)	2351177	50.0000	50
53 Anthracene	178	21.004	21.004	(1.006)	2481543	50.0000	51
54 Carbazole	167	21.248	21.248	(1.018)	1984031	50.0000	52
55 Di-n-butylphthalate	149	21.780	21.780	(1.044)	3582224	50.0000	54
56 Fluoranthene	202	22.896	22.896	(1.097)	2775929	50.0000	52
58 Benzidine	184	23.087	23.087	(1.106)	1541970	80.0000	78
57 Pyrene	202	23.285	23.285	(0.917)	2857270	50.0000	46
$ 78 Terphenyl-d14 (SUR)	244	23.503	23.503	(0.926)	2780462	50.0000	52
59 Butylbenzylphthalate	149	24.285	24.285	(0.957)	1804421	50.0000	48
60 3,3'-Dichlorobenzidine	252	25.278	25.278	(0.996)	2280475	80.0000	93
61 Benzo(a)anthracene	228	25.352	25.352	(0.999)	3162431	50.0000	48
63 bis(2-Ethylhexyl)phthalate	149	25.284	25.284	(0.996)	3396308	50.0000	56
* 81 Chrysene-d12	240	25.379	25.379	(1.000)	2005211	40.0000	
62 Chrysene	228	25.439	25.439	(1.002)	2904616	50.0000	50
64 Di-n-octylphthalate	149	26.779	26.779	(0.915)	4100333	50.0000	48
65 Benzo(b)fluoranthene	252	28.014	28.014	(0.957)	2950265	50.0000	49
66 Benzo(k)fluoranthene	252	28.114	28.114	(0.960)	3264124	50.0000	53
67 Benzo(a)pyrene	252	29.086	29.086	(0.993)	2826660	50.0000	52
* 84 Perylene-d12	264	29.278	29.278	(1.000)	1534570	40.0000	
68 Indeno(1,2,3-cd)pyrene	276	33.975	33.975	(1.160)	2598254	50.0000	54
69 Dibenz(a,h)anthracene	278	34.127	34.127	(1.166)	2721977	50.0000	56
70 Benzo(g,h,i)perylene	276	35.487	35.487	(1.212)	2802942	50.0000	56(M)

QC Flag Legend

M - Compound response manually integrated.

304149

Data File: /chem/BNAMS6.i/8270/10-12-98/15oct98.b/m2809.d
Date : 15-OCT-1998 10:55
Client ID:
Sample Info: MSTD288

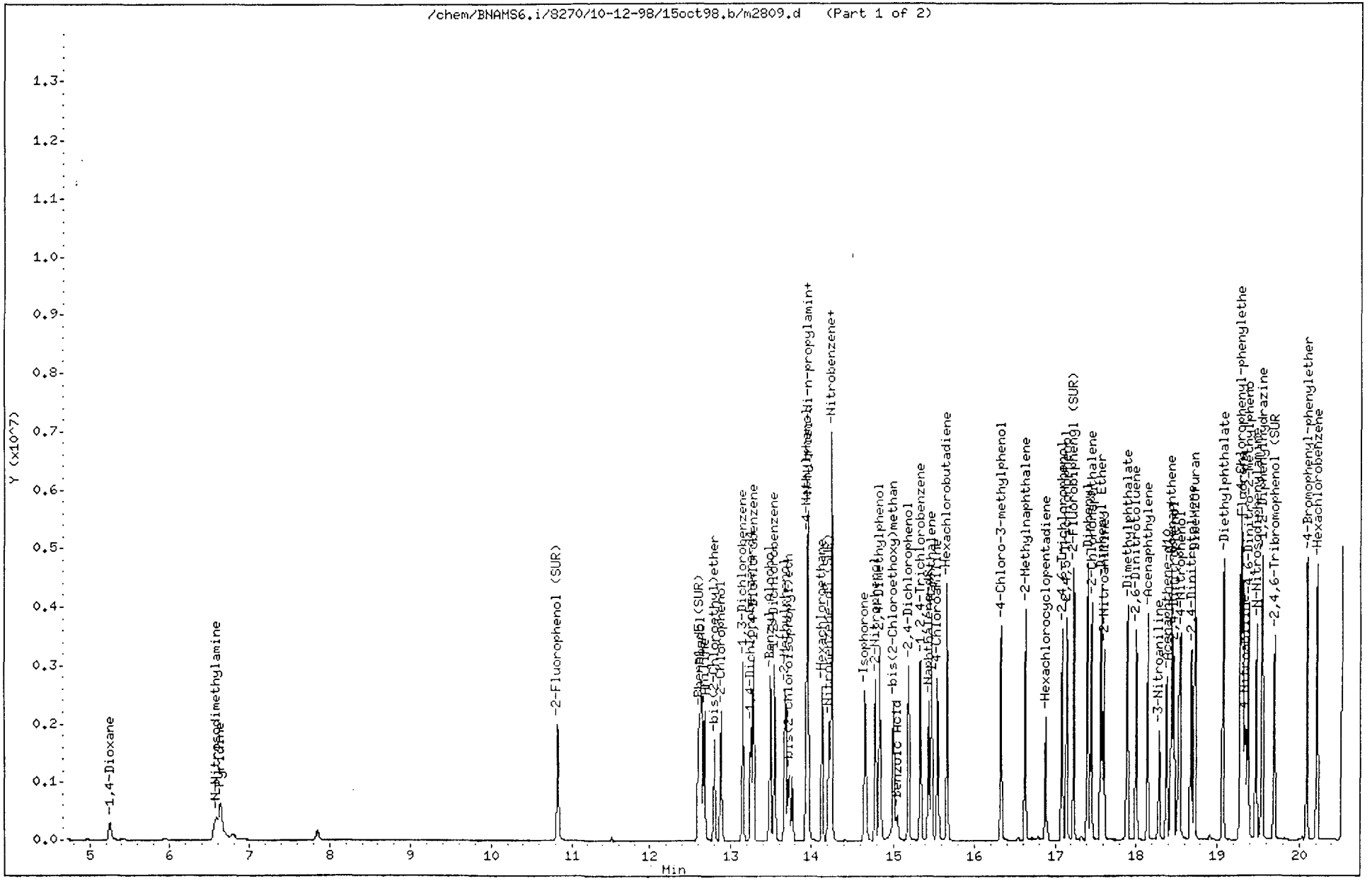
Instrument: BNAMS6.i

Operator: BNAMS3

304150

Column phase: DB-5

Column diameter: 0.25



613

Data File: /chem/BNAMS6.i/8270/10-12-98/15oct98.b/m2809.d
Date : 15-OCT-1998 10:55
Client ID:
Sample Info: MSTD288

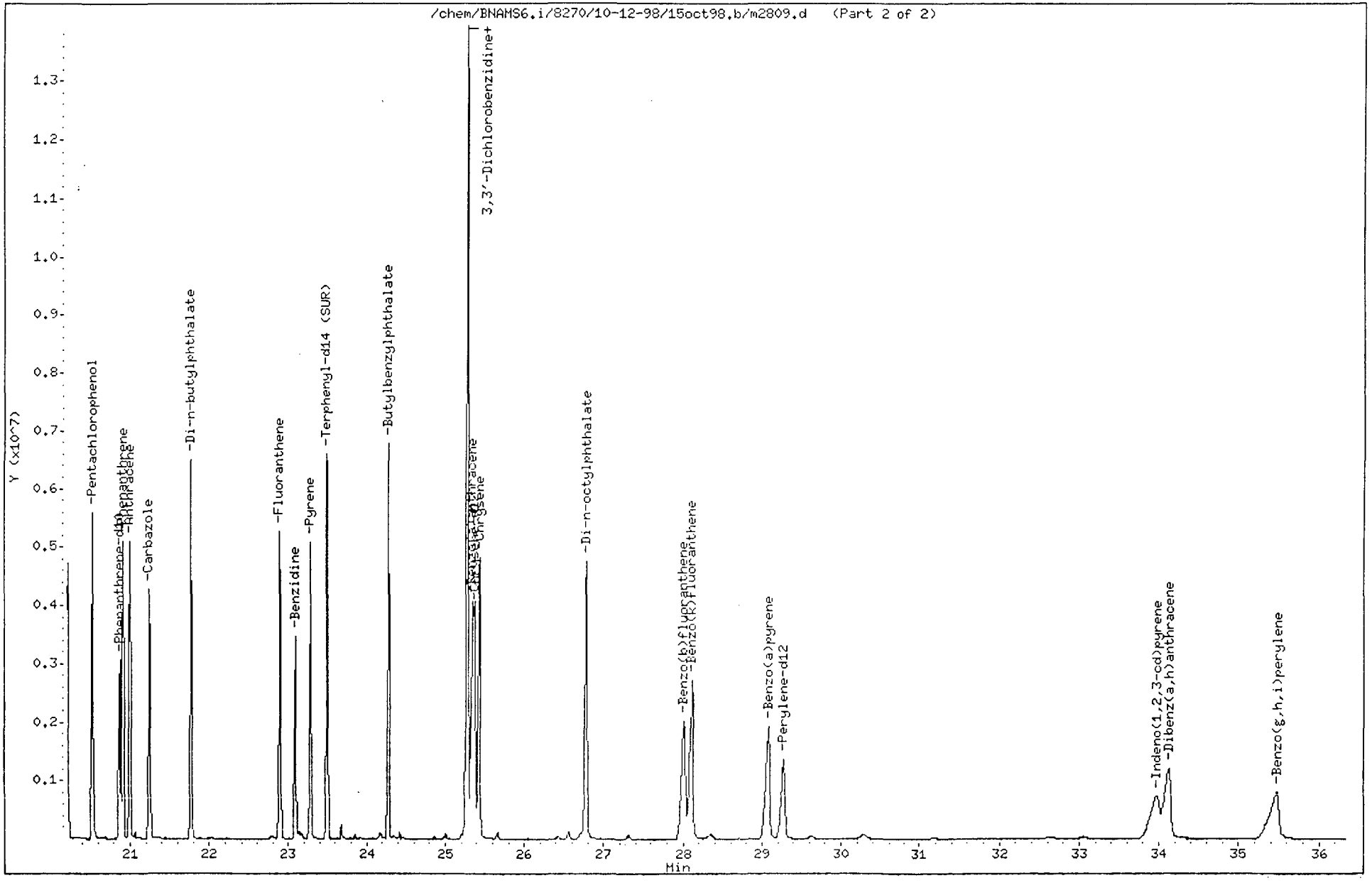
Instrument: BNAMS6.i

Operator: BNAMS3

304151

Column phase: DB-5

Column diameter: 0.25



614

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY
METHOD 8260B

Matrix: SOIL Level: HIGH Lab Job No: H941

	LAB SAMPLE NO.	S1 #	S2 #	S3 #	OTHER	TOT OUT
01	88557	93	92	108		0
02	88560	91	88	101		0
03	88559	96	83	95		0
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
S1	= 1,2-Dichloroethane-d4	(63-112)
S2	= Toluene-d8	(74-120)
S3	= Bromofluorobenzene	(76-123)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

304152

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY
METHOD 8260B

Matrix: SOIL Level: HIGH Lab Job No: H941

	LAB SAMPLE NO.	S1 #	S2 #	S3 #	OTHER	TOT OUT
01	EV288B	100	95	113		0
02	EV289	92	103	106		0
03	AV293	98	100	92		0
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
S1	= 1,2-Dichloroethane-d4	(63-112)
S2	= Toluene-d8	(74-120)
S3	= Bromofluorobenzene	(76-123)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

304153

VOLATILE SYSTEM MONITORING COMPOUND RECOVERY
METHOD 8260B

Matrix: WATER Level: LOW Lab Job No: H941

	LAB SAMPLE NO.	S1 #	S2 #	S3 #	OTHER	TOT OUT
01	BV291	113	118	113		0
02	88550	104	106	102		0
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
S1	= 1,2-Dichloroethane-d4	(71-121)
S2	= Toluene-d8	(72-122)
S3	= Bromofluorobenzene	(71-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

304154

SEMI-VOLATILE SURROGATE RECOVERY
METHOD 8270C

Matrix: SOIL Level: LOW Lab Job No: H941

	LAB SAMPLE NO.	S1 #	S2 #	S3 #	OTHER	TOT OUT
01	SB287B	87	86	117		0
02	SB288A	91	85	100		0
03	88562	84	88	100		0
04	88563	88	93	98		0
05	88565	91	92	99		0
06	88566	84	90	98		0
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
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21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
S1	= Nitrobenzene-d5	(59-113)
S2	= 2-Fluorobiphenyl	(62-120)
S3	= Terphenyl-d14	(76-138)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

304155

SEMI-VOLATILE SURROGATE RECOVERY
METHOD 8270C

Matrix: WATER Level: LOW Lab Job No: H941

	LAB SAMPLE NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	TOT OUT
01	WB282B	44	29	76	91	96	107	0
02	88548				88	89	105	0
03								
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

		QC LIMITS
S1	= 2-Fluorophenol	(21- 76)
S2	= Phenol-d5	(13- 57)
S3	= 2,4,6-Tribromophenol	(61-130)
S4	= Nitrobenzene-d5	(42-120)
S5	= 2-Fluorobiphenyl	(39-118)
S6	= Terphenyl-d14	(75-136)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

304156

VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8260B

Matrix: SOIL

Level: HIGH

Matrix Spike - Lab Sample No.: 90448

MS Sample from Lab Job No: I220

QA Batch: 8020

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	6677	0.00	5400	81	59-172
Trichloroethene	6677	0.00	6400	96	62-137
Benzene	6677	0.00	5600	84	66-142
Toluene	6677	0.00	5800	87	59-139
Chlorobenzene	6677	0.00	5800	87	60-133

Compound	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	6677	5700	85	5	22	59-172
Trichloroethene	6677	6500	97	2	24	62-137
Benzene	6677	5800	87	4	21	66-142
Toluene	6677	5800	87	0	21	59-139
Chlorobenzene	6677	5900	88	2	21	60-133

Column to be used to flag recovery and RPD values with an asterik
* Values outside of QC limits
RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

304157

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/26oct98.b/e4864.d
Report Date: 30-Oct-1998 15:40

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/26oct98.b/e4864.d
Lab Smp Id: 90448 Client Smp ID: B-31_0-0.5
Inj Date : 26-OCT-1998 14:05
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : 90448;50;18.6;11.5;25
Misc Info : I220;8020;DB
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/26oct98.b/8260newHIGH.m
Meth Date : 26-Oct-98 08:10:31 Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 12
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: 8260all.sub
Target Version: 3.40
Processing Host: hpd2

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	50.000	Dilution Factor
Vt	25.000	Volume of final extract (mL)
Ws	11.500	Weight of sample extracted (g)
M	18.600	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.625	8.680	(0.950)	751129	46.0199	6100
* 19 Fluorobenzene	96	9.077	9.149	(1.000)	2637396	50.0000	
$ 37 Toluene-d8 (SUR)	98	11.057	11.117	(0.868)	1918848	42.4292	5700
* 32 Chlorobenzene-d5	117	12.741	12.804	(1.000)	2124090	50.0000	
$ 41 Bromofluorobenzene (SUR)	174	14.020	14.071	(0.921)	674140	46.7243	6200
* 91 1,4-Dichlorobenzene-d4	152	15.221	15.276	(1.000)	702608	50.0000	

304158

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/26oct98.b/e4864.d
Date : 26-OCT-1998 14:05
Client ID: B-31_0-0.5
Sample Info: 90448;50;18.6;11.5;25

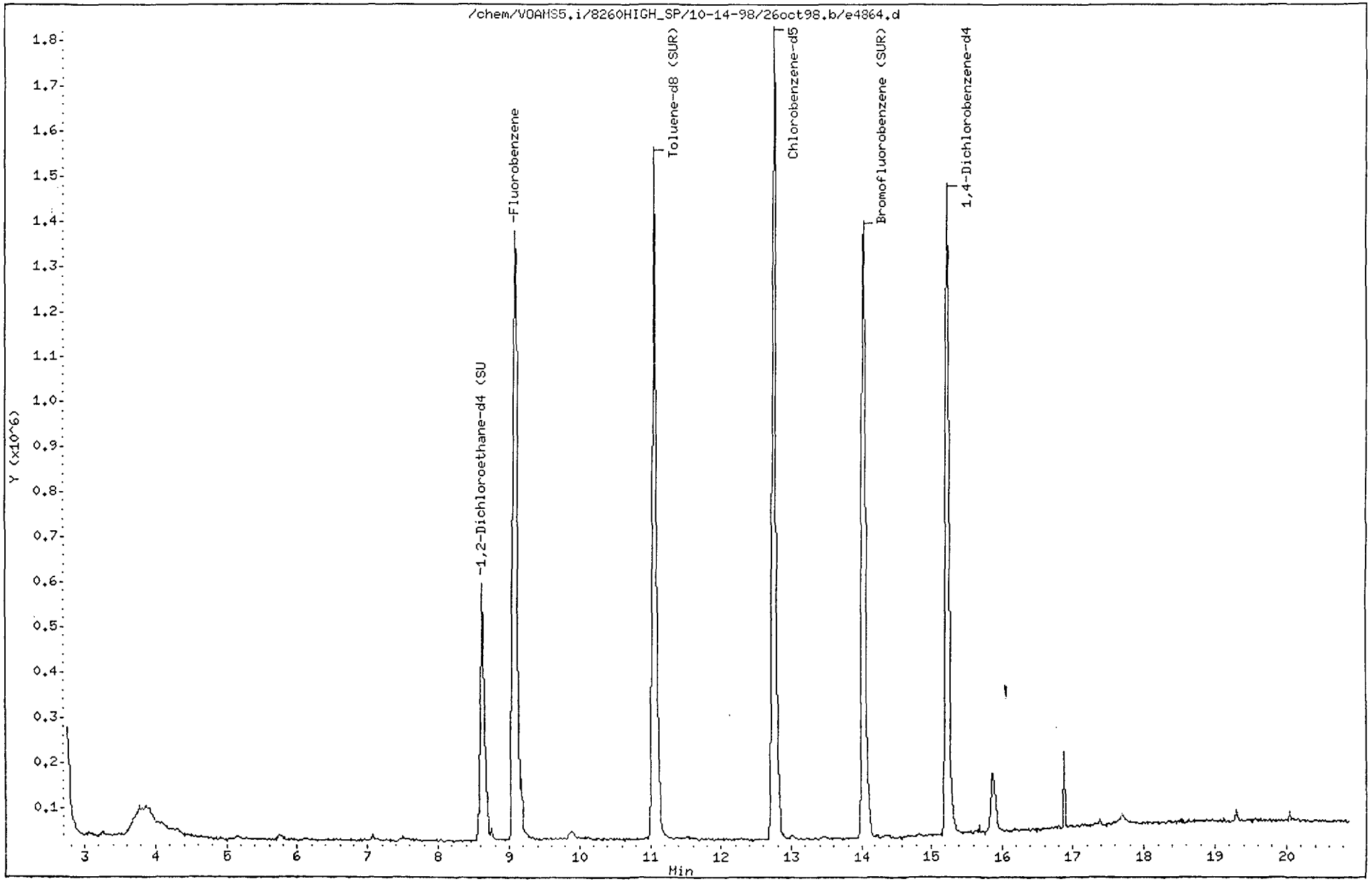
Column phase: DB624

Instrument: VOAMS5.i

Operator: VOAMS 5
Column diameter: 0.53

304159

622



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4938.d
Report Date: 30-Oct-1998 15:43

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4938.d
Lab Smp Id: 90448MS Client Smp ID: B-31_0-0.5MS
Inj Date : 29-OCT-1998 20:54
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : 90448MS;50;18.6;11.5;25
Misc Info : I220;8020;TL
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/8260newHIGH.m
Meth Date : 29-Oct-1998 10:56 V Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 21 QC Sample: MS
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: 8260all.sub
Target Version: 3.40
Processing Host: hpd2

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	50.000	Dilution Factor
Vt	25.000	Volume of final extract (mL)
Ws	11.500	Weight of sample extracted (g)
M	18.600	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Chloromethane	50	3.154	3.201	(0.346)	518076	41.7244	5600
4 Vinyl Chloride	62	3.372	3.419	(0.369)	503149	50.1911	6700
3 Bromomethane	94	3.840	3.903	(0.421)	477402	40.1996	5400
5 Chloroethane	64	3.981	4.043	(0.436)	326179	35.2873	4700
9 Trichlorofluoromethane	101	4.433	4.464	(0.486)	750807	30.5749	4100
10 1,1-Dichloroethene	96	5.150	5.167	(0.564)	576527	40.7686	5400
6 Methylene Chloride	84	5.789	5.807	(0.634)	670511	44.9731	6000
12 trans-1,2-Dichloroethene	96	6.179	6.213	(0.677)	673396	41.8876	5600
11 1,1-Dichloroethane	63	6.740	6.759	(0.739)	1714354	47.1918	6300
15 Chloroform	83	7.987	7.992	(0.875)	1433218	44.1624	5900
20 1,1,1-Trichloroethane	97	8.299	8.320	(0.909)	1156616	40.3491	5400
21 Carbon Tetrachloride	117	8.548	8.570	(0.937)	1216774	42.8930	5700
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.673	8.680	(0.950)	816115	46.1472	6200
28 Benzene	78	8.783	8.805	(0.962)	2002157	41.5890	5600
17 1,2-Dichloroethane	62	8.767	8.789	(0.961)	909902	43.5536	5800

304160

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4938.d
Report Date: 30-Oct-1998 15:43

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
* 19 Fluorobenzene	96	9.126	9.149	(1.000)	2857668	50.0000	
25 Trichloroethene	95	9.609	9.632	(1.053)	898533	47.8673	6400
23 1,2-Dichloropropane	63	9.874	9.898	(1.082)	1044236	45.6319	6100
22 Bromodichloromethane	83	10.202	10.226	(1.118)	1206021	38.0686	5100
30 2-Chloroethyl Vinyl Ether	63	10.530	10.539	(1.154)	463163	37.8384	5000
24 cis-1,3-Dichloropropene	75	10.748	10.757	(1.178)	1107504	41.9325	5600
$ 37 Toluene-d8 (SUR)	98	11.107	11.117	(0.868)	1998961	40.6219	5400
38 Toluene	91	11.185	11.195	(0.874)	2075733	43.0885	5800
29 trans-1,3-Dichloropropene	75	11.388	11.398	(0.890)	882611	43.3608	5800
27 1,1,2-Trichloroethane	83	11.622	11.632	(0.909)	551085	47.6553	6400
35 Tetrachloroethene	166	11.856	11.882	(0.927)	655312	41.0839	5500
26 Dibromochloromethane	129	12.122	12.133	(0.948)	1070863	44.1726	5900
* 32 Chlorobenzene-d5	117	12.792	12.804	(1.000)	2311217	50.0000	
39 Chlorobenzene	112	12.824	12.836	(1.002)	1757764	43.7010	5800
40 Ethylbenzene	106	12.917	12.930	(1.010)	755510	42.9650	5700
31 Bromoform	173	13.729	13.742	(1.073)	560480	44.7311	6000
$ 41 Bromofluorobenzene (SUR)	174	14.057	14.071	(0.920)	725362	45.7176	6100
36 1,1,2,2-Tetrachloroethane	83	14.151	14.165	(0.926)	702325	40.9680	5500
* 91 1,4-Dichlorobenzene-d4	152	15.275	15.276	(1.000)	772639	50.0000	
7 Acetone	43	5.181	5.183	(0.568)	120376	45.3943	6100
8 Carbon Disulfide	76	5.477	5.511	(0.600)	1338482	34.7668	4600
18 2-Butanone	72	7.519	7.524	(0.824)	49328	46.9512	6300
33 4-Methyl-2-Pentanone	43	10.889	10.898	(1.193)	542051	43.8568	5800
34 2-Hexanone	43	11.872	11.882	(0.928)	340775	46.7801	6200
42 Styrene	104	13.495	13.508	(1.055)	1544921	42.8966	5700
67 1,3-Dichlorobenzene	146	15.213	15.229	(0.996)	922841	46.6561	6200
68 1,4-Dichlorobenzene	146	15.291	15.308	(1.001)	1005478	41.1478	5500
69 1,2-Dichlorobenzene	146	15.682	15.699	(1.027)	756286	43.1271	5800

304161

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4938.d
Date : 29-OCT-1998 20:54
Client ID: B-31_0-0.5MS
Sample Info: 90448MS;50;18.6;11.5;25

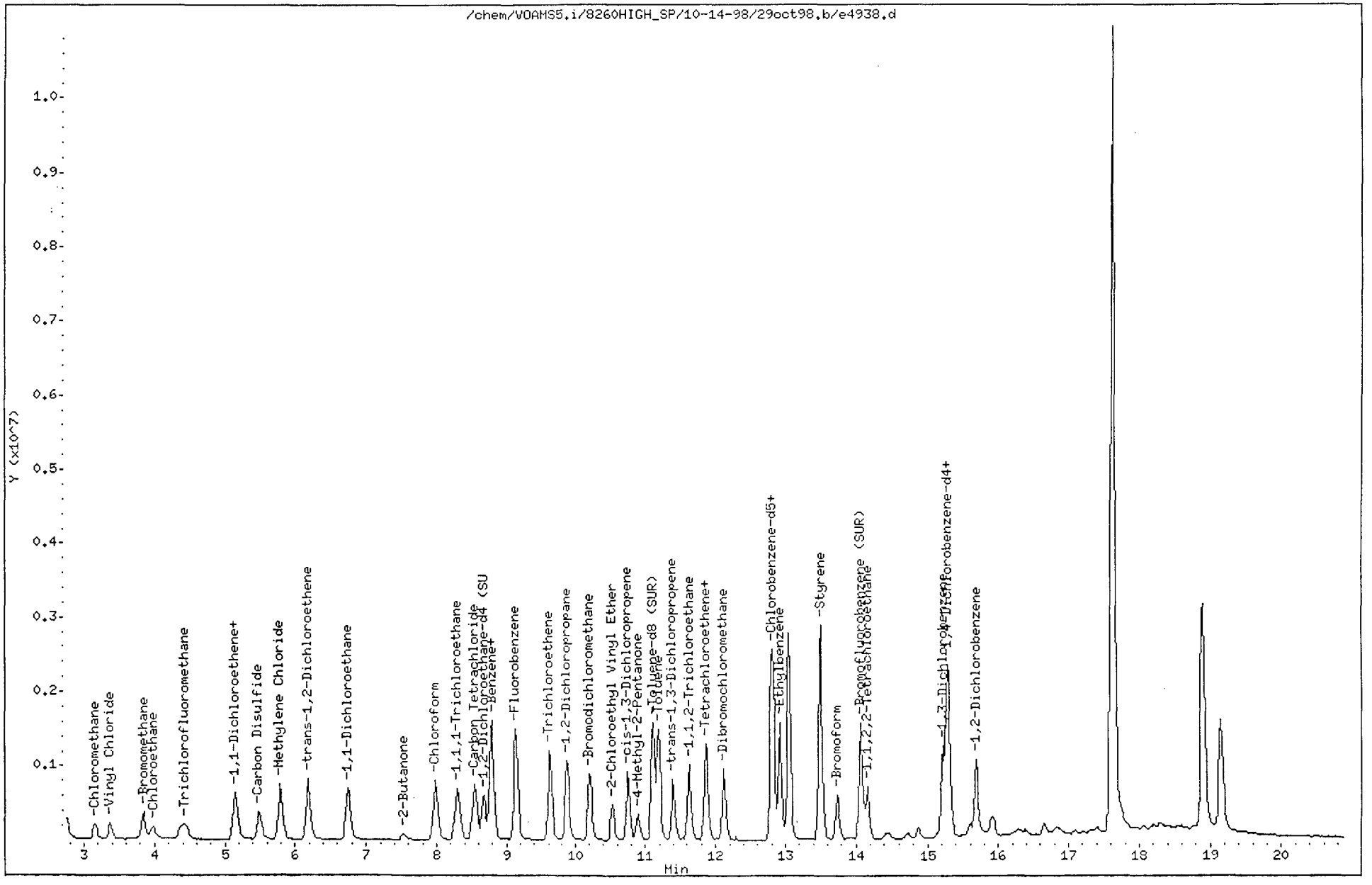
Column phase: DB624

Instrument: VOAMS5.i

Operator: VOAMS 5
Column diameter: 0.53

304162

625



Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4939.d
Report Date: 30-Oct-1998 15:43

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4939.d
Lab Smp Id: 90448MSD Client Smp ID: B-31_0-0.5MSD
Inj Date : 29-OCT-1998 21:22
Operator : VOAMS 5 Inst ID: VOAMS5.i
Smp Info : 90448MSD;50;18.6;11.5;25
Misc Info : I220;8020;TL
Comment :
Method : /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/8260newHIGH.m
Meth Date : 29-Oct-1998 10:56 V Quant Type: ISTD
Cal Date : 14-OCT-1998 12:21 Cal File: e4614.d
Als bottle: 22 QC Sample: MSD
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: 8260all.sub
Target Version: 3.40
Processing Host: hpd2

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	50.000	Dilution Factor
Vt	25.000	Volume of final extract (mL)
Ws	11.500	Weight of sample extracted (g)
M	18.600	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Chloromethane	50	3.154	3.201	(0.346)	550685	44.9775	6000
4 Vinyl Chloride	62	3.372	3.419	(0.369)	519916	52.5967	7000
3 Bromomethane	94	3.824	3.903	(0.419)	491940	42.0092	5600
5 Chloroethane	64	3.965	4.043	(0.434)	318053	34.8945	4600
9 Trichlorofluoromethane	101	4.417	4.464	(0.484)	777836	32.1233	4300
10 1,1-Dichloroethene	96	5.134	5.167	(0.563)	591653	42.4296	5700
6 Methylene Chloride	84	5.789	5.807	(0.634)	684479	46.5588	6200
12 trans-1,2-Dichloroethene	96	6.179	6.213	(0.677)	689547	43.4985	5800
11 1,1-Dichloroethane	63	6.740	6.759	(0.739)	1729266	48.2751	6400
13 cis-1,2-Dichloroethene	96	7.550	7.571	(0.827)	8801	0.51095	68(a)
15 Chloroform	83	7.987	7.992	(0.875)	1448413	45.2614	6000
20 1,1,1-Trichloroethane	97	8.299	8.320	(0.909)	1161912	41.1068	5500
21 Carbon Tetrachloride	117	8.548	8.570	(0.937)	1212648	43.3517	5800
$ 16 1,2-Dichloroethane-d4 (SUR)	65	8.673	8.680	(0.950)	864643	49.5823	6600
28 Benzene	78	8.782	8.805	(0.962)	2050122	43.1872	5800

304163

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4939.d
Report Date: 30-Oct-1998 15:43

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
	17 1,2-Dichloroethane	62	8.767	8.789	(0.961)	966948	46.9383	6300
*	19 Fluorobenzene	96	9.126	9.149	(1.000)	2817841	50.0000	
	25 Trichloroethene	95	9.609	9.632	(1.053)	904162	48.8480	6500
	23 1,2-Dichloropropane	63	9.874	9.898	(1.082)	1047779	46.4339	6200
	22 Bromodichloromethane	83	10.202	10.226	(1.118)	1239995	39.6942	5300
	30 2-Chloroethyl Vinyl Ether	63	10.530	10.539	(1.154)	445382	36.9000	4900
	24 cis-1,3-Dichloropropene	75	10.748	10.757	(1.178)	1139568	43.7564	5800
$	37 Toluene-d8 (SUR)	98	11.107	11.117	(0.868)	2043727	41.1134	5500
	38 Toluene	91	11.185	11.195	(0.874)	2112948	43.4193	5800
	29 trans-1,3-Dichloropropene	75	11.388	11.398	(0.890)	925918	45.0302	6000
	27 1,1,2-Trichloroethane	83	11.622	11.632	(0.909)	592189	50.6941	6800
	35 Tetrachloroethene	166	11.856	11.882	(0.927)	666600	41.3707	5500
	26 Dibromochloromethane	129	12.122	12.133	(0.948)	1123369	45.8718	6100
*	32 Chlorobenzene-d5	117	12.792	12.804	(1.000)	2334730	50.0000	
	39 Chlorobenzene	112	12.823	12.836	(1.002)	1794489	44.1647	5900
	40 Ethylbenzene	106	12.917	12.930	(1.010)	782596	44.0572	5900
	31 Bromoform	173	13.744	13.742	(1.074)	616375	48.6966	6500
$	41 Bromofluorobenzene (SUR)	174	14.057	14.071	(0.920)	756793	46.4842	6200
	36 1,1,2,2-Tetrachloroethane	83	14.151	14.165	(0.926)	794299	45.1534	6000
*	91 1,4-Dichlorobenzene-d4	152	15.275	15.276	(1.000)	792825	50.0000	
	7 Acetone	43	5.181	5.183	(0.568)	128940	49.3111	6600
	8 Carbon Disulfide	76	5.477	5.511	(0.600)	1359581	35.8140	4800
	18 2-Butanone	72	7.519	7.524	(0.824)	57025	55.0445	7400
	33 4-Methyl-2-Pentanone	43	10.888	10.898	(1.193)	630289	51.7168	6900
	34 2-Hexanone	43	11.872	11.882	(0.928)	387488	52.6569	7000
	42 Styrene	104	13.495	13.508	(1.055)	1577656	43.3643	5800
	67 1,3-Dichlorobenzene	146	15.212	15.229	(0.996)	965128	47.5517	6300
	68 1,4-Dichlorobenzene	146	15.290	15.308	(1.001)	1066775	42.5447	5700
	69 1,2-Dichlorobenzene	146	15.681	15.699	(1.027)	823323	45.7545	6100

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

304164

Data File: /chem/VOAMS5.i/8260HIGH_SP/10-14-98/29oct98.b/e4939.d
Date : 29-OCT-1998 21:22
Client ID: B-31_0-0.5MSD
Sample Info: 90448MSD;50;18.6;11.5;25

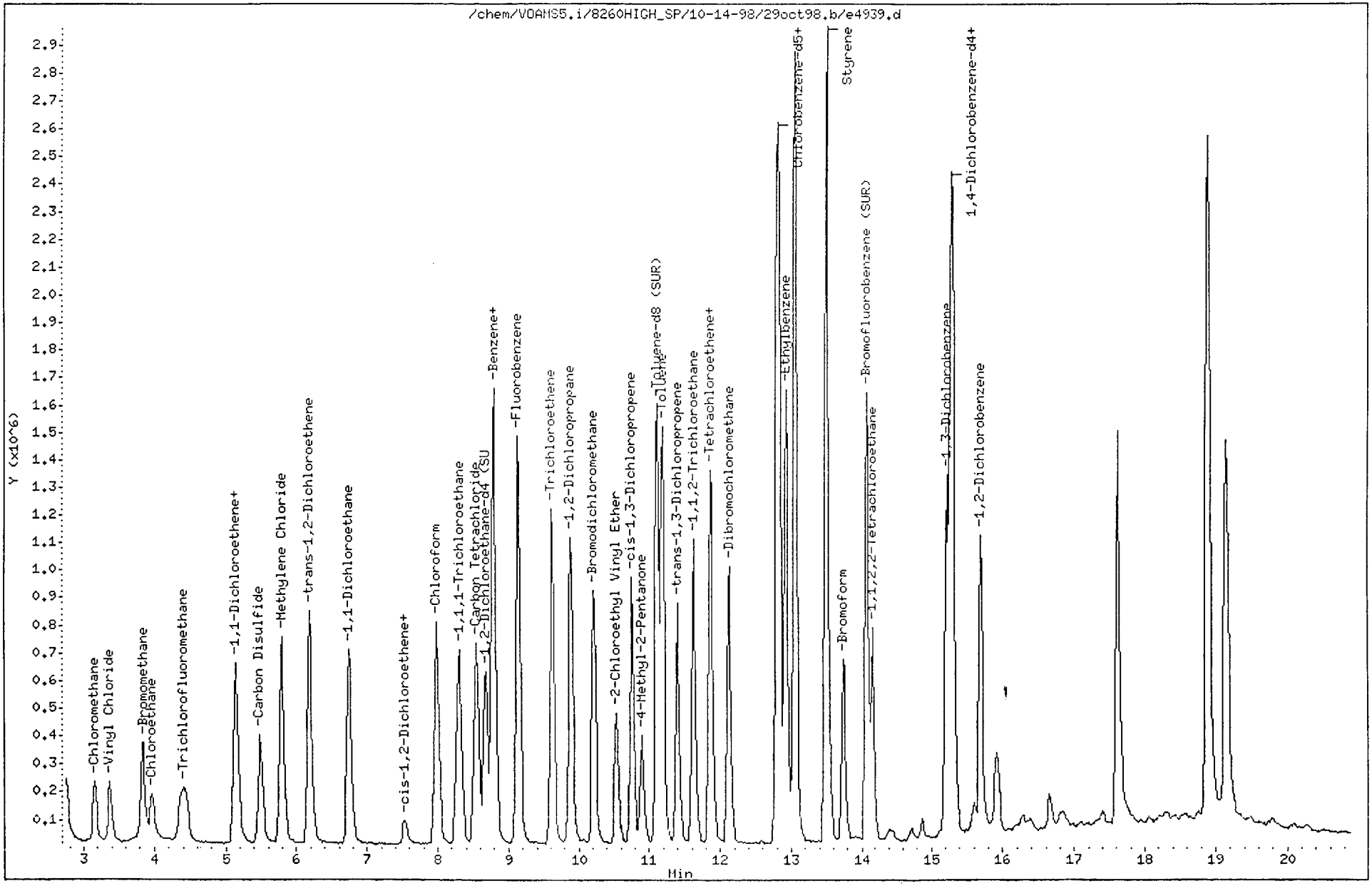
Column phase: DB624

Instrument: VOAMS5.i

Operator: VOAMS 5
Column diameter: 0.53

304165

628



VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8260B

Matrix: SOIL

Level: HIGH

Matrix Spike - Lab Sample No.: 91023

MS Sample from Lab Job No: I319

QA Batch: 8040

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	7700	0.00	8400	109	59-172
Trichloroethene	7700	0.00	8400	109	62-137
Benzene	7700	0.00	7900	103	66-142
Toluene	7700	0.00	8000	104	59-139
Chlorobenzene	7700	0.00	8200	106	60-133

Compound	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	7700	8500	110	1	22	59-172
Trichloroethene	7700	8300	108	1	24	62-137
Benzene	7700	8000	104	1	21	66-142
Toluene	7700	7900	103	1	21	59-139
Chlorobenzene	7700	8200	106	0	21	60-133

Column to be used to flag recovery and RPD values with an asterik
* Values outside of QC limits
RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

304166

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6476.d
Report Date: 29-Oct-1998 15:12

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6476.d
Lab Smp Id: 91023 Client Smp ID: T1-S1-8
Inj Date : 20-OCT-1998 16:12
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : 91023;50;18.4;9.9;25
Misc Info : I319;8040;VP
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/new8260HIGH.m
Meth Date : 23-Oct-98 15:24:04 riaz Quant Type: ISTD
Cal Date : 07-OCT-1998 09:00 Cal File: a6192.d
Als bottle: 8
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: HSL_MTBE_TBA.sub
Target Version: 3.40
Processing Host: hpd2

Concentration Formula: Amt * DF * (Vt/Ws)/((100-M)/100)

Name	Value	Description
DF	50.000	Dilution Factor
Vt	25.000	Volume of final extract (mL)
Ws	9.900	Weight of sample extracted (g)
M	18.400	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	10.116	10.087	(0.958)	1385128	42.7650	6600
$ 37 Toluene-d8 (SUR)	98	12.479	12.436	(0.881)	2898039	37.8635	5800
* 32 Chlorobenzene-d5	117	14.163	14.135	(1.000)	3478307	50.0000	
$ 41 Bromofluorobenzene (SUR)	174	15.449	15.405	(0.924)	1788658	41.7453	6400
* 19 Fluorobenzene	96	10.559	10.530	(1.000)	4221434	50.0000	
* 91 1,4-Dichlorobenzene-d4	152	16.719	16.676	(1.000)	1950186	50.0000	

304167

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/20oct98.b/a6476.d
Date : 20-OCT-1998 16:12
Client ID: T1-S1-8
Sample Info: 91023;50;18.4;9.9;25

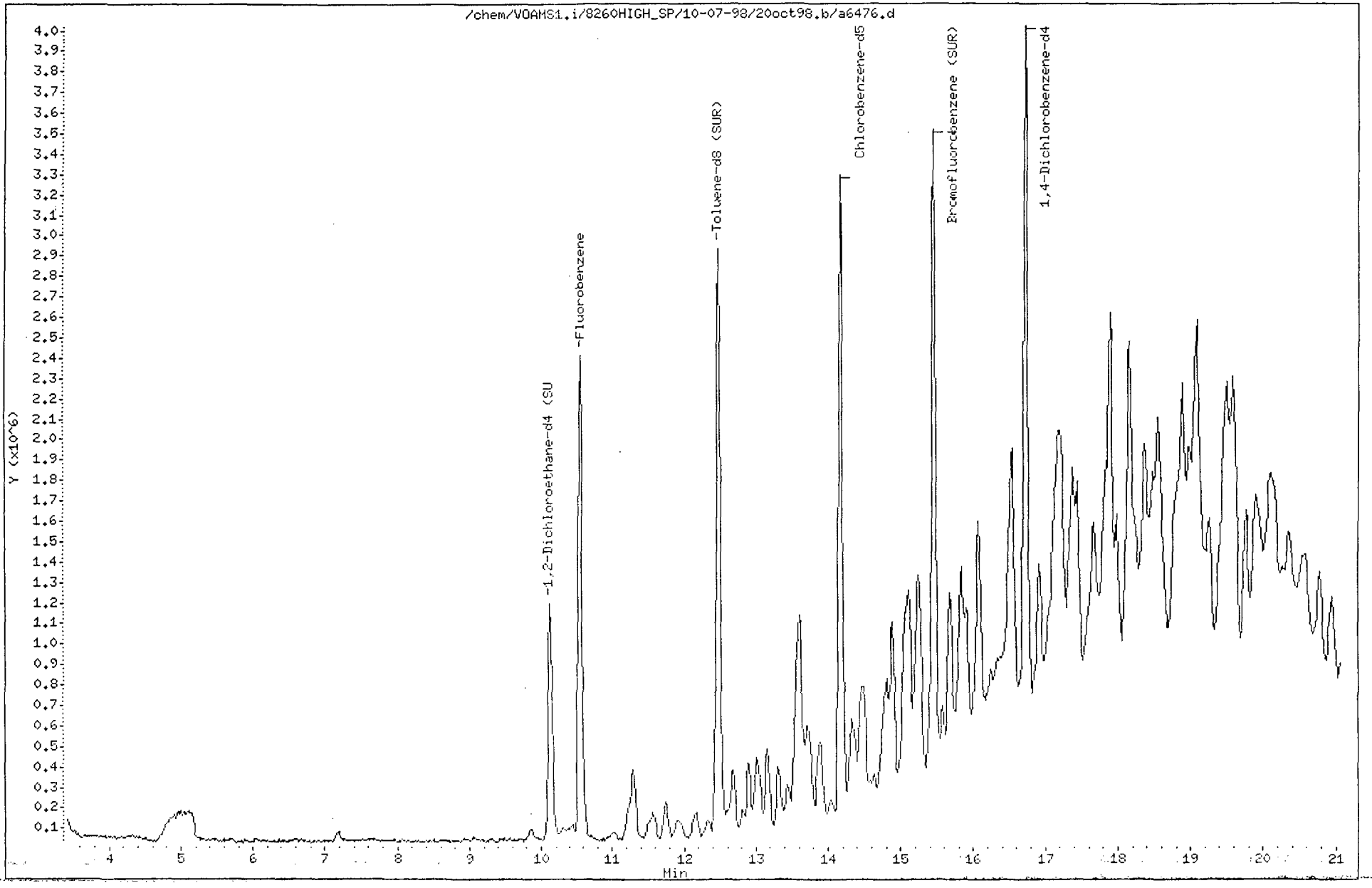
Instrument: VOAMS1.i

Operator: VOAMS 3

304168

Column phase: DB624

Column diameter: 0.53



631

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6586.d
Report Date: 27-Oct-98 09:44:16

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6586.d
Lab Smp Id: 91023MS Client Smp ID: T1-S1-8MS
Inj Date : 25-OCT-98 18:08:00
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : 91023MS;50;18.4;9.9;25
Misc Info : I319;8040;VP
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/new8260HIGH.m
Meth Date : 25-Oct-98 14:04:02 Quant Type: ISTD
Cal Date : 07-OCT-98 09:00:00 Cal File: a6192.d
Als bottle: 8 QC Sample: MS
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: 8260all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	25.000	Volume of final extract (mL)
Ws	9.900	Weight of sample extracted (g)
M	18.400	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Chloromethane	50	4.117	4.118	(0.391)	799102	44	6700
4 Vinyl Chloride	62	4.338	4.340	(0.412)	904161	60	9300
3 Bromomethane	94	4.885	4.946	(0.464)	695460	26	4000
5 Chloroethane	64	5.033	5.138	(0.478)	345108	26	4100
9 Trichlorofluoromethane	101	5.520	5.611	(0.524)	2611999	49	7600
10 1,1-Dichloroethene	96	6.421	6.467	(0.610)	1543203	54	8400
6 Methylene Chloride	84	7.145	7.162	(0.679)	1775835	53	8200
12 trans-1,2-Dichloroethene	96	7.588	7.605	(0.721)	1664545	54	8400
11 1,1-Dichloroethane	63	8.209	8.211	(0.780)	3127189	56	8600
13 cis-1,2-Dichloroethene	96	9.022	9.023	(0.857)	33050	1.0	160(a)
15 Chloroform	83	9.420	9.422	(0.895)	3491215	53	8100
20 1,1,1-Trichloroethane	97	9.731	9.732	(0.924)	2657140	55	8600
21 Carbon Tetrachloride	117	9.967	9.969	(0.947)	2525724	52	8000
$ 16 1,2-Dichloroethane-d4 (SUR)	65	10.085	10.087	(0.958)	1441929	42	6600
28 Benzene	78	10.203	10.205	(0.969)	3729827	51	7900
17 1,2-Dichloroethane	62	10.189	10.176	(0.968)	1943877	53	8200

304169

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6586.d
Report Date: 27-Oct-98 09:44:16

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
* 19 Fluorobenzene	96	10.528	10.530	(1.000)	4412471	50	
25 Trichloroethene	95	10.986	10.988	(1.043)	2194032	54	8400
23 1,2-Dichloropropane	63	11.252	11.254	(1.069)	1929272	52	8100
22 Bromodichloromethane	83	11.563	11.564	(1.098)	3558983	49	7600
30 2-Chloroethyl Vinyl Ether	63	11.858	11.845	(1.126)	441905	52	8100
24 cis-1,3-Dichloropropene	75	12.094	12.081	(1.149)	2212658	46	7100
$ 37 Toluene-d8 (SUR)	98	12.449	12.436	(0.881)	3115614	39	6100
38 Toluene	91	12.523	12.525	(0.886)	3903832	52	8000
29 trans-1,3-Dichloropropene	75	12.715	12.702	(0.900)	1824141	48	7400
27 1,1,2-Trichloroethane	83	12.951	12.938	(0.916)	1559212	54	8400
35 Tetrachloroethene	166	13.202	13.204	(0.934)	2532257	53	8100
26 Dibromochloromethane	129	13.454	13.441	(0.952)	3282782	49	7500
* 32 Chlorobenzene-d5	117	14.133	14.135	(1.000)	3603372	50	
39 Chlorobenzene	112	14.163	14.164	(1.002)	3378744	53	8200
40 Ethylbenzene	106	14.251	14.238	(1.008)	1334536	56	8600
31 Bromoform	173	15.093	15.095	(1.068)	2281171	46	7100
$ 41 Bromofluorobenzene (SUR)	174	15.418	15.405	(0.924)	1813285	40	6200
36 1,1,2,2-Tetrachloroethane	83	15.492	15.479	(0.928)	2266325	41	6400
* 91 1,4-Dichlorobenzene-d4	152	16.689	16.676	(1.000)	2042338	50	
7 Acetone	43	6.525	6.497	(0.620)	253807	33	5000
8 Carbon Disulfide	76	6.820	6.866	(0.648)	3505424	45	7000
18 2-Butanone	72	9.022	8.979	(0.857)	97825	50	7700
33 4-Methyl-2-Pentanone	43	12.227	12.200	(1.161)	1117963	47	7300
34 2-Hexanone	43	12.227	12.200	(0.865)	1116952	49	7600
42 Styrene	104	14.828	14.829	(1.049)	2597542	52	8000
67 1,3-Dichlorobenzene	146	16.615	16.617	(0.996)	2967418	50	7800
68 1,4-Dichlorobenzene	146	16.704	16.705	(1.001)	3077983	46	7000
69 1,2-Dichlorobenzene	146	17.147	17.149	(1.027)	2862608	49	7600

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

304170

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6586.d
Date : 25-OCT-1998 18:08
Client ID: T1-S1-8MS
Sample Info: 91023MS;50;18.4;9.9;25

Instrument: VOAMS1.i

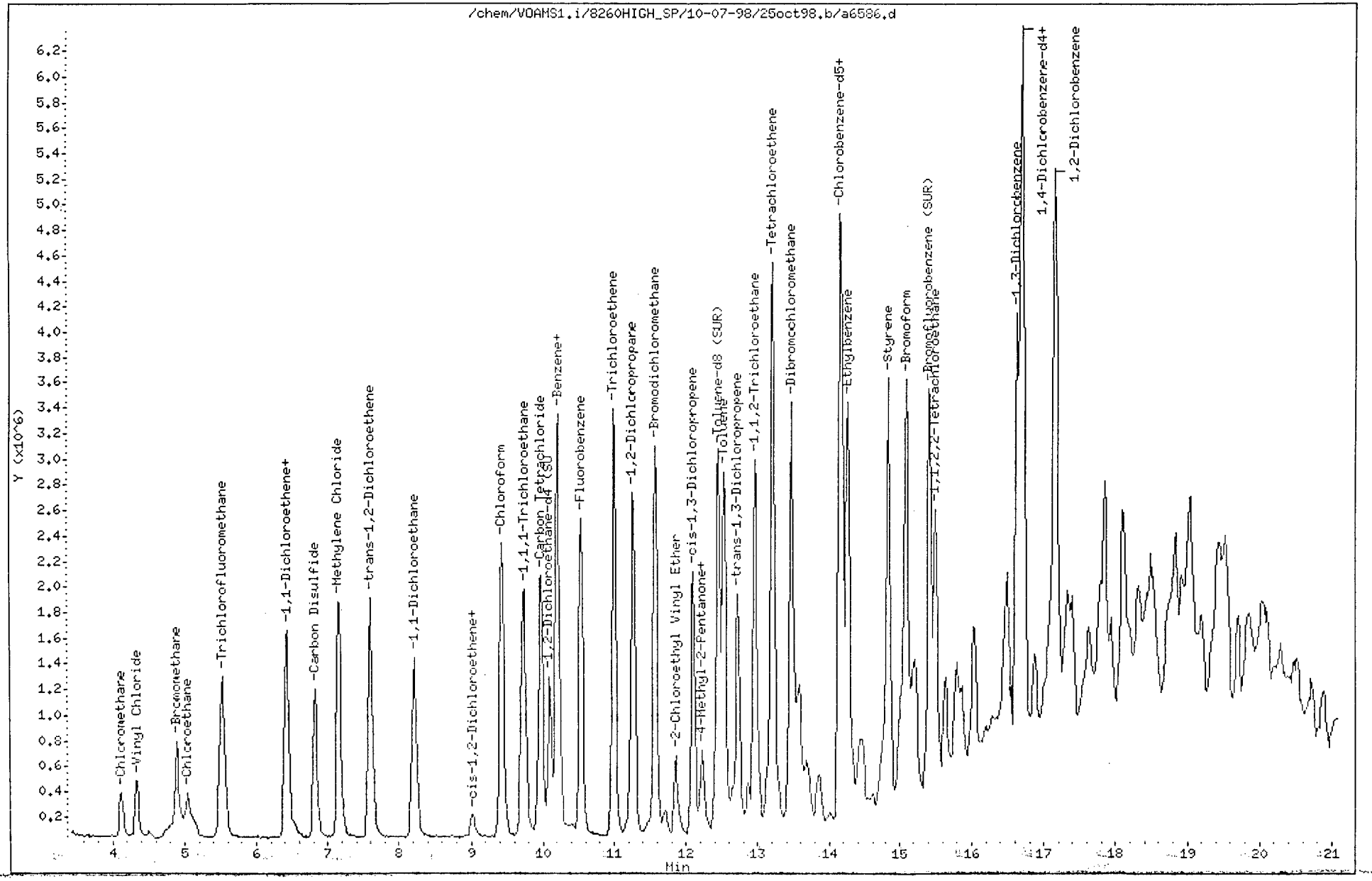
Operator: VOAMS 3

304171

Column phase: DB624

Column diameter: 0.53

634



Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6587.d
Report Date: 27-Oct-98 09:44:29

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6587.d
Lab Smp Id: 91023MSD Client Smp ID: T1-S1-8MSD
Inj Date : 25-OCT-98 18:38:00
Operator : VOAMS 3 Inst ID: VOAMS1.i
Smp Info : 91023MSD;50;18.4;9.9;25
Misc Info : I319;8040;VP
Comment :
Method : /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/new8260HIGH.m
Meth Date : 25-Oct-98 14:04:02 Quant Type: ISTD
Cal Date : 07-OCT-98 09:00:00 Cal File: a6192.d
Als bottle: 9 QC Sample: MSD
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: 8260all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: (Vt/Ws)/((100-M)/100)

Name	Value	Description
Vt	25.000	Volume of final extract (mL)
Ws	9.900	Weight of sample extracted (g)
M	18.400	% Moisture (not decanted)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
1 Chloromethane	50	4.105	4.118	(0.390)	818608	43	6700
4 Vinyl Chloride	62	4.327	4.340	(0.411)	907123	58	9000
3 Bromomethane	94	4.888	4.946	(0.464)	730945	26	4000
5 Chloroethane	64	5.036	5.138	(0.478)	351969	26	4000
9 Trichlorofluoromethane	101	5.509	5.611	(0.523)	2628951	48	7400
10 1,1-Dichloroethene	96	6.410	6.467	(0.609)	1615819	55	8500
6 Methylene Chloride	84	7.148	7.162	(0.679)	1815253	53	8200
12 trans-1,2-Dichloroethene	96	7.592	7.605	(0.721)	1732541	54	8400
11 1,1-Dichloroethane	63	8.212	8.211	(0.780)	3207299	55	8600
13 cis-1,2-Dichloroethene	96	9.025	9.023	(0.857)	26659	0.79	120(a)
15 Chloroform	83	9.424	9.422	(0.895)	3563729	52	8000
20 1,1,1-Trichloroethane	97	9.719	9.732	(0.923)	2734293	55	8500
21 Carbon Tetrachloride	117	9.955	9.969	(0.945)	2610704	52	8000
$ 16 1,2-Dichloroethane-d4 (SUR)	65	10.088	10.087	(0.958)	1576553	45	7000
28 Benzene	78	10.207	10.205	(0.969)	3870289	52	8000
17 1,2-Dichloroethane	62	10.177	10.176	(0.966)	1993021	52	8100

304172

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6587.d
Report Date: 27-Oct-98 09:44:29

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/Kg)
* 19 Fluorobenzene	96	10.532	10.530	(1.000)	4557324	50	
25 Trichloroethene	95	10.989	10.988	(1.043)	2244807	54	8300
23 1,2-Dichloropropane	63	11.255	11.254	(1.069)	1990667	52	8100
22 Bromodichloromethane	83	11.566	11.564	(1.098)	3684427	49	7600
30 2-Chloroethyl Vinyl Ether	63	11.861	11.845	(1.126)	470110	54	8400
24 cis-1,3-Dichloropropene	75	12.083	12.081	(1.147)	2256671	45	7000
$ 37 Toluene-d8 (SUR)	98	12.452	12.436	(0.881)	3269212	39	6100
38 Toluene	91	12.526	12.525	(0.886)	4039330	51	7900
29 trans-1,3-Dichloropropene	75	12.718	12.702	(0.900)	1916385	48	7400
27 1,1,2-Trichloroethane	83	12.954	12.938	(0.916)	1626203	54	8400
35 Tetrachloroethene	166	13.206	13.204	(0.934)	2583329	51	8000
26 Dibromochloromethane	129	13.457	13.441	(0.952)	3429001	49	7500
* 32 Chlorobenzene-d5	117	14.136	14.135	(1.000)	3763000	50	
39 Chlorobenzene	112	14.166	14.164	(1.002)	3533844	53	8200
40 Ethylbenzene	106	14.254	14.238	(1.008)	1381944	55	8600
31 Bromoform	173	15.097	15.095	(1.068)	2383078	46	7100
$ 41 Bromofluorobenzene (SUR)	174	15.407	15.405	(0.924)	1918392	41	6300
36 1,1,2,2-Tetrachloroethane	83	15.495	15.479	(0.929)	2362009	41	6300
* 91 1,4-Dichlorobenzene-d4	152	16.677	16.676	(1.000)	2143148	50	
7 Acetone	43	6.528	6.497	(0.620)	257432	32	5000
8 Carbon Disulfide	76	6.809	6.866	(0.646)	3627925	45	7000
18 2-Butanone	72	9.010	8.979	(0.856)	103972	51	8000
33 4-Methyl-2-Pentanone	43	12.216	12.200	(1.160)	1187023	48	7500
34 2-Hexanone	43	12.216	12.200	(0.864)	1184609	50	7800
42 Styrene	104	14.831	14.829	(1.049)	2701270	52	8000
67 1,3-Dichlorobenzene	146	16.618	16.617	(0.996)	3009728	49	7600
68 1,4-Dichlorobenzene	146	16.707	16.705	(1.002)	3286312	46	7200
69 1,2-Dichlorobenzene	146	17.150	17.149	(1.028)	2962090	49	7500

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

304173

Data File: /chem/VOAMS1.i/8260HIGH_SP/10-07-98/25oct98.b/a6587.d
Date : 25-OCT-1998 18:38
Client ID: T1-S1-8MSD
Sample Info: 91023MSD;50;18.4;9.9;25

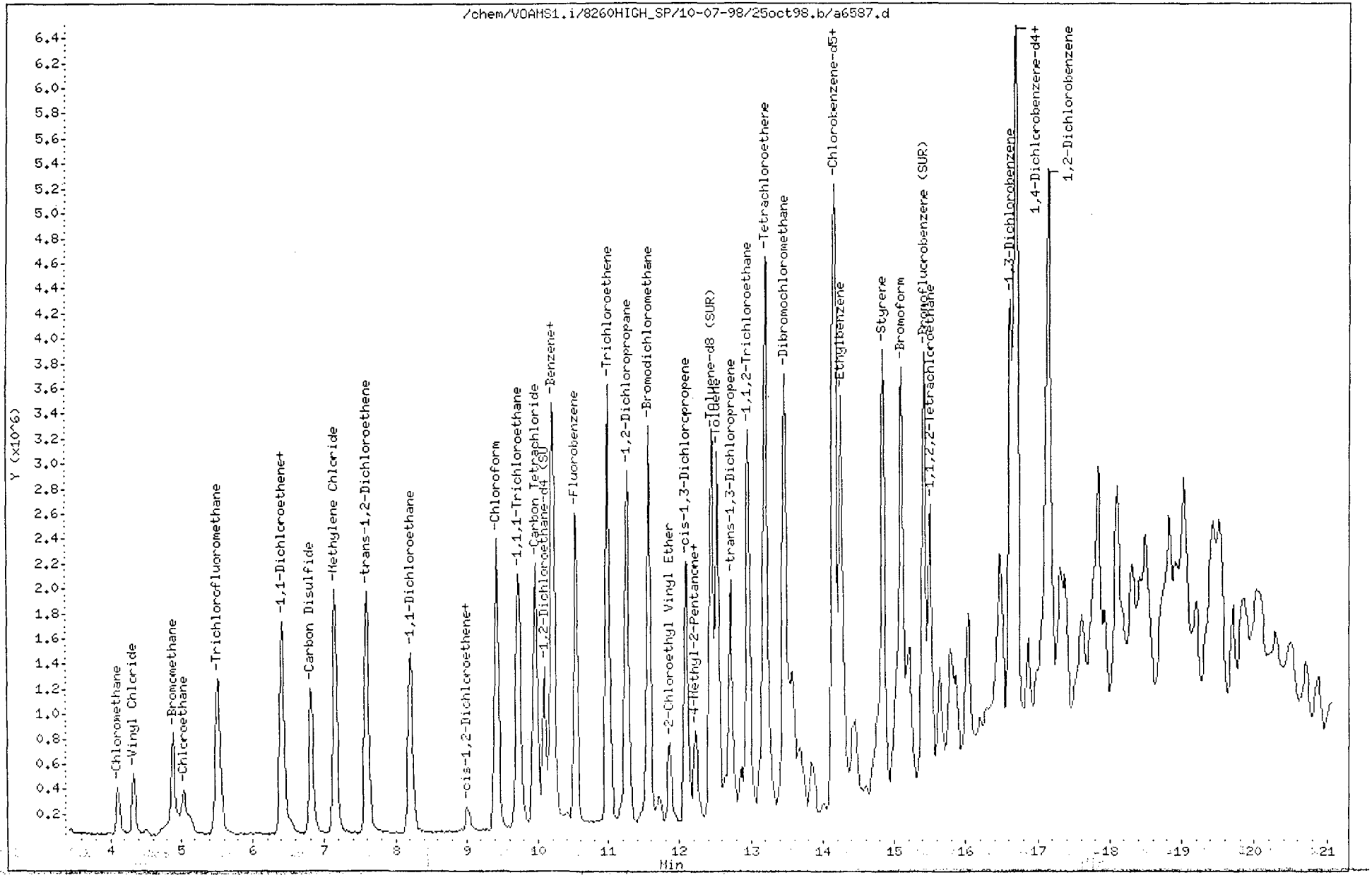
Instrument: VOAMS1.i

Operator: VOAMS 3

304174

Column phase: DB624

Column diameter: 0.53



637

VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8260B

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 88784

MS Sample from Lab Job No: H969

QA Batch: 8361

Compound	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0.00	53	106	59-172
Trichloroethene	50	0.00	57	114	62-137
Benzene	50	0.00	50	100	66-142
Toluene	50	0.00	48	96	59-139
Chlorobenzene	50	0.00	49	98	60-133

Compound	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	52	104	2	22	59-172
Trichloroethene	50	55	110	4	24	62-137
Benzene	50	49	98	2	21	66-142
Toluene	50	47	94	2	21	59-139
Chlorobenzene	50	48	96	2	21	60-133

Column to be used to flag recovery and RPD values with an asterik
* Values outside of QC limits
RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

304175

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/b8541.d
Report Date: 03-Nov-1998 09:18

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/b8541.d
Lab Smp Id: 88784 Client Smp ID: 4401D-FB-10698
Inj Date : 18-OCT-1998 23:08
Operator : VOAMS 3 Inst ID: VOAMS2.i
Smp Info : 88784
Misc Info : H969;8361;JW
Comment :
Method : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/new8260HIGH.m
Meth Date : 18-Oct-98 12:31:29 Quant Type: ISTD
Cal Date : 29-SEP-1998 21:16 Cal File: b8238.d
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PPVOA.sub
Target Version: 3.40
Processing Host: hpvoa

Concentration Formula: Amt * DF * 5/Vo

Name	Value	Description
DF	1.000	Dilution Factor
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
$ 16 1,2-Dichloroethane-d4 (SUR)	65	10.626	10.685	(0.961)	1587344	50.0800	50
* 19 Fluorobenzene	96	11.055	11.099	(1.000)	4815049	50.0000	
$ 37 Toluene-d8 (SUR)	98	12.949	12.993	(0.886)	4189093	51.5524	52
* 32 Chlorobenzene-d5	117	14.621	14.665	(1.000)	3160917	50.0000	
$ 41 Bromofluorobenzene (SUR)	174	15.894	15.923	(0.925)	1429420	50.2643	50
* 91 1,4-Dichlorobenzene-d4	152	17.181	17.210	(1.000)	1424349	50.0000	

304176

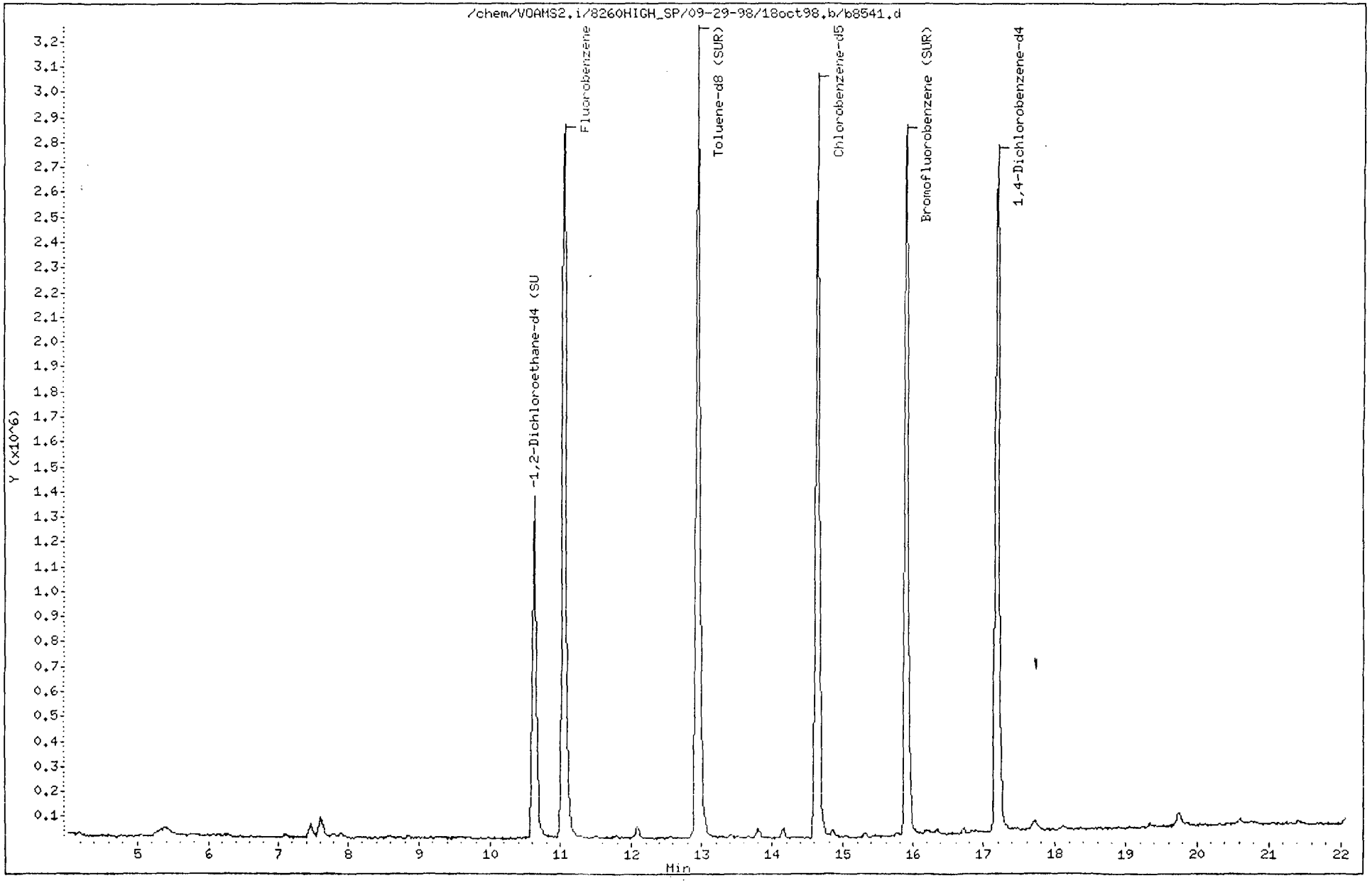
Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/18oct98.b/b8541.d
Date : 18-OCT-1998 23:08
Client ID: 4401D-FB-10698
Sample Info: 88784
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS2.i

Operator: VOAMS 3
Column diameter: 0.53

304177

640



Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/20oct98.b/b8569.d
Report Date: 20-Oct-98 16:40:21

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/20oct98.b/b8569.d
Lab Smp Id: 88784MS
Inj Date : 20-OCT-98 12:28:00
Operator : VOAMS 3 Inst ID: VOAMS2.i
Smp Info : 88784MS
Misc Info : H969;8361;JW
Comment :
Method : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/20oct98.b/new8260HIGH.m
Meth Date : 20-Oct-98 15:37:16 cak Quant Type: ISTD
Cal Date : 29-SEP-98 21:16:00 Cal File: b8238.d
Als bottle: 4 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: 5/Vo

Name	Value	Description
Vo	5.000	SampleVolume

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	1 Chloromethane	50	4.614	4.632	(0.417)	1064995	48	48
	4 Vinyl Chloride	62	4.851	4.884	(0.438)	1213299	60	60
	3 Bromomethane	94	5.472	5.505	(0.494)	712575	38	38
	5 Chloroethane	64	5.664	5.683	(0.512)	872395	50	50
	9 Trichlorofluoromethane	101	6.153	6.171	(0.556)	2342899	53	53
	10 1,1-Dichloroethene	96	7.055	7.089	(0.638)	1653625	53	53
	6 Methylene Chloride	84	7.810	7.844	(0.706)	1834520	48	48
	12 trans-1,2-Dichloroethene	96	8.239	8.273	(0.745)	1785921	53	53
	11 1,1-Dichloroethane	63	8.816	8.865	(0.797)	3736240	55	55
	13 cis-1,2-Dichloroethene	96	9.601	9.634	(0.868)	26775	0.77	0.77(a)
	15 Chloroform	83	9.971	10.019	(0.901)	3564499	54	54
	20 1,1,1-Trichloroethane	97	10.281	10.315	(0.929)	2662590	59	59
	21 Carbon Tetrachloride	117	10.503	10.552	(0.949)	2261591	54	54
$	16 1,2-Dichloroethane-d4 (SUR)	65	10.637	10.685	(0.961)	1785899	56	56
	28 Benzene	78	10.755	10.788	(0.972)	4811409	50	50
	17 1,2-Dichloroethane	62	10.740	10.773	(0.971)	2093419	54	54
*	19 Fluorobenzene	96	11.066	11.099	(1.000)	4857105	50	
	25 Trichloroethene	95	11.524	11.558	(1.041)	2335380	57	57

304178

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/20oct98.b/b8569.d
Report Date: 20-Oct-98 16:40:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
	23 1,2-Dichloropropane	63	11.791	11.839	(1.066)	2376564	53	53
	22 Bromodichloromethane	83	12.101	12.135	(1.094)	3236548	51	51
	30 2-Chloroethyl Vinyl Ether	63	12.383	12.401	(1.119)	65552	2.4	2.4(aR)
	24 cis-1,3-Dichloropropene	75	12.605	12.653	(1.139)	2575738	47	47
$	37 Toluene-d8 (SUR)	98	12.960	12.993	(0.886)	4702647	52	52
	38 Toluene	91	13.034	13.067	(0.891)	4895748	48	48
	29 trans-1,3-Dichloropropene	75	13.226	13.259	(0.904)	2287868	48	48
	27 1,1,2-Trichloroethane	83	12.101	13.496	(0.827)	3236548	89	89(R)
	35 Tetrachloroethene	166	13.700	13.748	(0.936)	2051799	50	50
	26 Dibromochloromethane	129	13.966	14.014	(0.954)	2745808	50	50
*	32 Chlorobenzene-d5	117	14.632	14.665	(1.000)	3537764	50	
	39 Chlorobenzene	112	14.662	14.695	(1.002)	3506013	49	49
	40 Ethylbenzene	106	14.736	14.769	(1.007)	1634417	51	51
	31 Bromoform	173	15.594	15.627	(1.066)	1973898	48	48
$	41 Bromofluorobenzene (SUR)	174	15.890	15.923	(0.924)	1662008	48	48
	36 1,1,2,2-Tetrachloroethane	83	15.979	16.012	(0.929)	3165196	42	42
*	91 1,4-Dichlorobenzene-d4	152	17.192	17.210	(1.000)	1725573	50	
	7 Acetone	43	7.129	7.163	(0.644)	505808	39	39
	8 Carbon Disulfide	76	7.485	7.503	(0.676)	4273938	46	46
	18 2-Butanone	72	9.556	9.604	(0.864)	204473	51	51
	33 4-Methyl-2-Pentanone	43	12.723	12.756	(1.150)	2374598	58	58
	34 2-Hexanone	43	13.670	13.807	(0.934)	1576210	57	57
	42 Styrene	104	15.313	15.346	(1.047)	3050834	48	48
	67 1,3-Dichlorobenzene	146	17.118	17.151	(0.996)	2548444	43	43
	68 1,4-Dichlorobenzene	146	17.207	17.240	(1.001)	3093986	46	46
	69 1,2-Dichlorobenzene	146	17.651	17.684	(1.027)	2634188	46	46

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

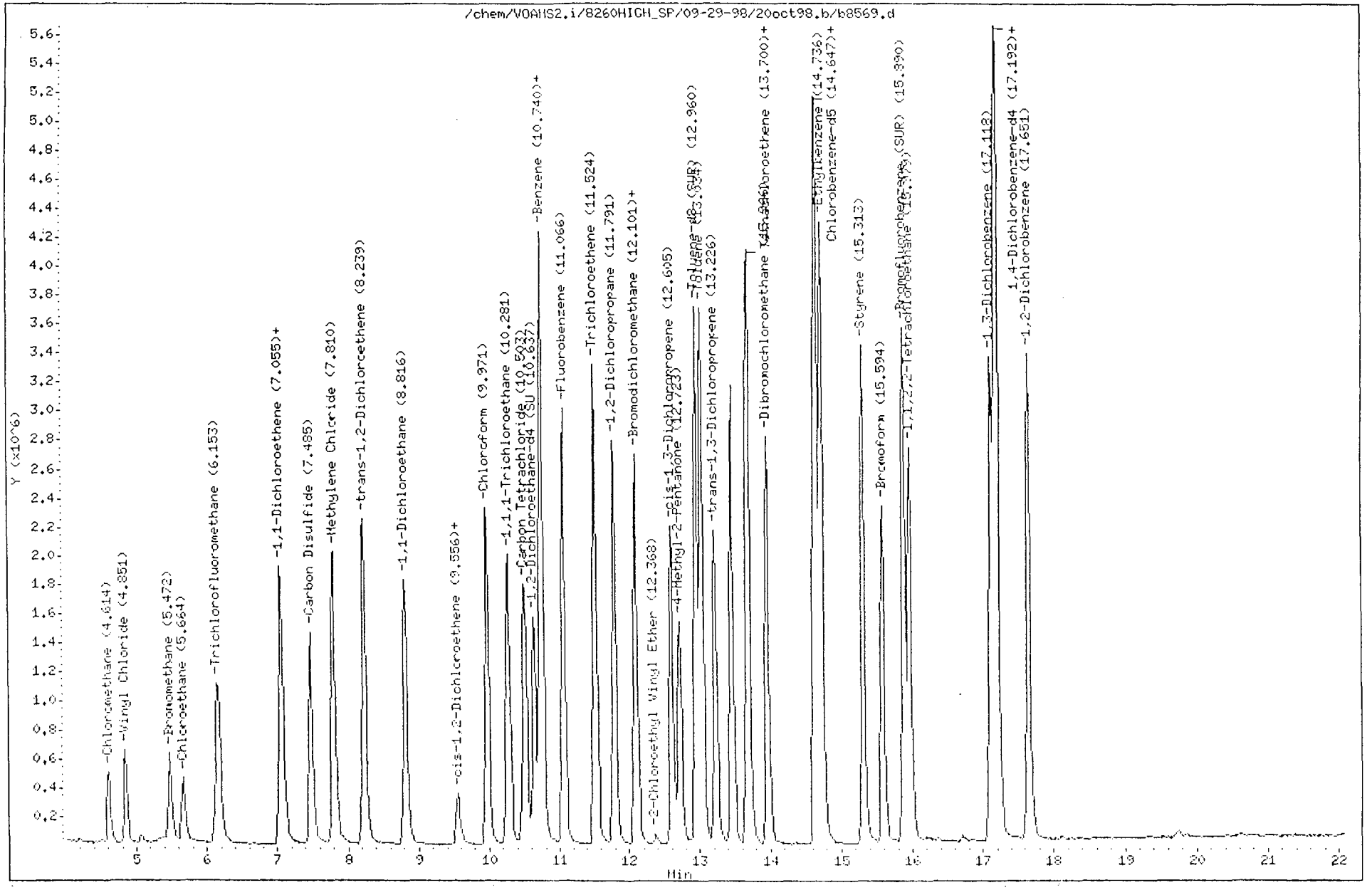
304179

Data File: /chem/VOAHS2.i/8260HIGH_SP/09-29-98/20oct98.b/b8569.d
Date : 20-OCT-98 12:28:00
Client ID:
Sample Info: 88784MS
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAHS2.i
Operator: VOAHS 3
Column diameter: 0.53

304180

643



Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/19oct98.b/b8549.d
Report Date: 20-Oct-98 08:39:17

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/19oct98.b/b8549.d
Lab Smp Id: 88784MSD
Inj Date : 19-OCT-98 14:03:00
Operator : VOAMS 3 Inst ID: VOAMS2.i
Smp Info : 88784MSD
Misc Info : H969;8361;JW
Comment :
Method : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/19oct98.b/new8260HIGH.m
Meth Date : 19-Oct-98 10:54:27 Quant Type: ISTD
Cal Date : 29-SEP-98 21:16:00 Cal File: b8238.d
Als bottle: 7 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: 5/Vo

Name	Value	Description
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Chloromethane	50	4.600	4.632	(0.417)	1006669	47	47
4 Vinyl Chloride	62	4.822	4.884	(0.437)	1122244	58	58
3 Bromomethane	94	5.443	5.505	(0.493)	625376	35	35
5 Chloroethane	64	5.636	5.683	(0.511)	807823	48	48
9 Trichlorofluoromethane	101	6.124	6.171	(0.555)	2158145	51	51
10 1,1-Dichloroethene	96	7.027	7.089	(0.637)	1568069	52	52
6 Methylene Chloride	84	7.781	7.844	(0.705)	1699303	46	46
12 trans-1,2-Dichloroethene	96	8.210	8.273	(0.744)	1682264	52	52
11 1,1-Dichloroethane	63	8.802	8.865	(0.798)	3514625	54	54
13 cis-1,2-Dichloroethene	96	9.572	9.634	(0.867)	24951	0.75	0.75(a)
15 Chloroform	83	9.956	10.019	(0.902)	3299998	52	52
20 1,1,1-Trichloroethane	97	10.252	10.315	(0.929)	2469448	57	57
21 Carbon Tetrachloride	117	10.489	10.552	(0.950)	2074664	51	51
$ 16 1,2-Dichloroethane-d4 (SUR)	65	10.622	10.685	(0.962)	1560998	51	51(H)
28 Benzene	78	10.726	10.788	(0.972)	4493346	49	49
17 1,2-Dichloroethane	62	10.711	10.773	(0.971)	1966767	53	53
* 19 Fluorobenzene	96	11.037	11.099	(1.000)	4662695	50	
25 Trichloroethene	95	11.510	11.558	(1.043)	2145656	55	55

304181

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/19oct98.b/b8549.d
Report Date: 20-Oct-98 08:39:17

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
	23 1,2-Dichloropropane	63	11.777	11.839	(1.067)	2236127	52	52
	22 Bromodichloromethane	83	12.087	12.135	(1.095)	3006923	49	49
	24 cis-1,3-Dichloropropene	75	12.590	12.653	(1.141)	2396076	45	45
$	37 Toluene-d8 (SUR)	98	12.931	12.993	(0.885)	4149249	48	48
	38 Toluene	91	13.020	13.067	(0.891)	4546690	47	47
	29 trans-1,3-Dichloropropene	75	13.212	13.259	(0.904)	2132084	47	47
	27 1,1,2-Trichloroethane	83	12.087	13.496	(0.827)	3006923	87	87
	35 Tetrachloroethene	166	13.685	13.748	(0.936)	1900770	49	49
	26 Dibromochloromethane	129	13.952	14.014	(0.954)	2567232	50	50
*	32 Chlorobenzene-d5	117	14.618	14.665	(1.000)	3373568	50	
	39 Chlorobenzene	112	14.647	14.695	(1.002)	3284930	48	48
	40 Ethylbenzene	106	14.721	14.769	(1.007)	1537005	50	50
	31 Bromoform	173	15.565	15.627	(1.065)	1942712	50	50
$	41 Bromofluorobenzene (SUR)	174	15.876	15.923	(0.925)	1430704	44	44
	36 1,1,2,2-Tetrachloroethane	83	15.950	16.012	(0.929)	3271843	45	45
*	91 1,4-Dichlorobenzene-d4	152	17.163	17.210	(1.000)	1637480	50	
	7 Acetone	43	7.086	7.163	(0.642)	523111	42	42
	8 Carbon Disulfide	76	7.456	7.503	(0.676)	3905947	43	43
	18 2-Butanone	72	9.542	9.604	(0.865)	204828	53	53
	33 4-Methyl-2-Pentanone	43	12.709	12.756	(1.151)	2366060	60	60
	34 2-Hexanone	43	13.656	13.807	(0.934)	1631390	62	62
	42 Styrene	104	15.298	15.346	(1.047)	2871562	48	48
	67 1,3-Dichlorobenzene	146	17.193	17.151	(1.002)	2820530	50	50
	68 1,4-Dichlorobenzene	146	17.193	17.240	(1.002)	2820539	45	45
	69 1,2-Dichlorobenzene	146	17.637	17.684	(1.028)	2540122	47	47

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

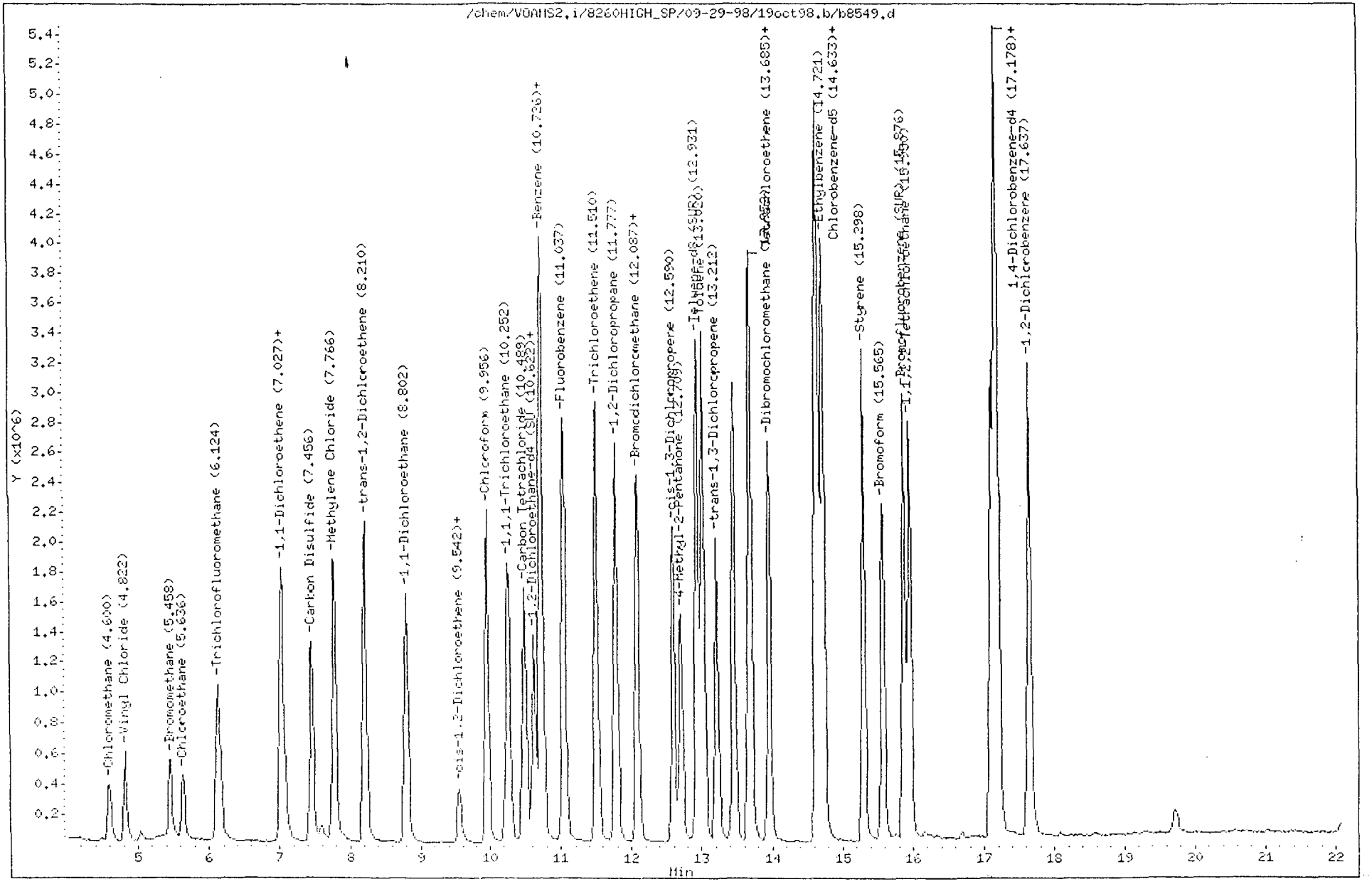
304182

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/19oct98.b/b8549.d
Date : 19-OCT-98 14:03:00
Client ID:
Sample Info: 88784MSD
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAMS2.i

Operator: VOAMS 3
Column diameter: 0.53

304183



Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/19oct98.b/b8550.d
Report Date: 20-Oct-98 09:18:09

Envirotech Research, Inc.

VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/19oct98.b/b8550.d
Lab Smp Id: 8361BS
Inj Date : 19-OCT-98 14:37:00
Operator : VOAMS 3 Inst ID: VOAMS2.i
Smp Info : 8361BS
Misc Info :
Comment :
Method : /chem/VOAMS2.i/8260HIGH_SP/09-29-98/19oct98.b/new8260HIGH.m
Meth Date : 19-Oct-98 10:54:27 Quant Type: ISTD
Cal Date : 29-SEP-98 21:16:00 Cal File: b8238.d
Als bottle: 7 QC Sample: METHSPIKE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 8260all.sub
Target Version: 3.20
Procesing Host: hpvoa

Concentration Formula: 5/Vo

Name	Value	Description
Vo	5.000	SampleVolume

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 Chloromethane	50	4.587	4.632	(0.416)	978994	44	44
4 Vinyl Chloride	62	4.824	4.884	(0.437)	1151821	58	58
3 Bromomethane	94	5.460	5.505	(0.495)	694692	37	37
5 Chloroethane	64	5.638	5.683	(0.511)	815669	47	47
9 Trichlorofluoromethane	101	6.126	6.171	(0.555)	2170092	50	50
10 1,1-Dichloroethene	96	7.029	7.089	(0.637)	1581004	50	50
6 Methylene Chloride	84	7.784	7.844	(0.705)	1707146	45	45
12 trans-1,2-Dichloroethene	96	8.213	8.273	(0.744)	1651789	49	49
11 1,1-Dichloroethane	63	8.790	8.865	(0.796)	3568838	53	53
13 cis-1,2-Dichloroethene	96	9.574	9.634	(0.867)	25393	0.73	0.73(a)
15 Chloroform	83	9.959	10.019	(0.902)	3371676	51	51
20 1,1,1-Trichloroethane	97	10.255	10.315	(0.929)	2500247	56	56
21 Carbon Tetrachloride	117	10.492	10.552	(0.950)	2120571	50	50
$ 16 1,2-Dichloroethane-d4 (SUR)	65	10.625	10.685	(0.962)	1462681	46	46(H)
28 Benzene	78	10.728	10.788	(0.972)	4539363	47	47
17 1,2-Dichloroethane	62	10.714	10.773	(0.971)	1988904	51	51
* 19 Fluorobenzene	96	11.039	11.099	(1.000)	4844869	50	
25 Trichloroethene	95	11.498	11.558	(1.042)	2130599	52	52

304184

Data File: /chem/VOAMS2.i/8260HIGH_SP/09-29-98/19oct98.b/b8550.d
Report Date: 20-Oct-98 09:18:09

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
23 1,2-Dichloropropane	63	11.779	11.839	(1.067)	2258410	50	50
22 Bromodichloromethane	83	12.090	12.135	(1.095)	3088204	49	49
30 2-Chloroethyl Vinyl Ether	63	12.356	12.401	(1.119)	1458165	54	54(R)
24 cis-1,3-Dichloropropene	75	12.593	12.653	(1.141)	2420500	44	44
$ 37 Toluene-d8 (SUR)	98	12.933	12.993	(0.885)	3931283	43	43
38 Toluene	91	13.007	13.067	(0.890)	4579784	45	45
29 trans-1,3-Dichloropropene	75	13.200	13.259	(0.903)	2183533	46	46
27 1,1,2-Trichloroethane	83	13.436	13.496	(0.919)	1884087	52	52(M)
35 Tetrachloroethene	166	13.688	13.748	(0.936)	1958967	48	48
26 Dibromochloromethane	129	13.954	14.014	(0.954)	2633609	48	48
* 32 Chlorobenzene-d5	117	14.620	14.665	(1.000)	3536797	50	
39 Chlorobenzene	112	14.650	14.695	(1.002)	3339266	47	47
40 Ethylbenzene	106	14.724	14.769	(1.007)	1546181	48	48
31 Bromoform	173	15.567	15.627	(1.065)	1982205	48	48
$ 41 Bromofluorobenzene (SUR)	174	15.878	15.923	(0.925)	1379405	40	40
36 1,1,2,2-Tetrachloroethane	83	15.952	16.012	(0.929)	3354774	44	44
* 91 1,4-Dichlorobenzene-d4	152	17.165	17.210	(1.000)	1736856	50	
7 Acetone	43	7.103	7.163	(0.643)	522022	40	40
4 Carbon Disulfide	76	7.458	7.503	(0.676)	4009558	43	43
18 2-Butanone	72	9.545	9.604	(0.865)	206798	52	52
33 4-Methyl-2-Pentanone	43	12.696	12.756	(1.150)	2389806	58	58
34 2-Hexanone	43	13.643	13.807	(0.933)	1613430	58	58
42 Styrene	104	15.301	15.346	(1.047)	2920205	46	46
67 1,3-Dichlorobenzene	146	17.195	17.151	(1.002)	2868965	48	48
68 1,4-Dichlorobenzene	146	17.195	17.240	(1.002)	2868965	43	43
69 1,2-Dichlorobenzene	146	17.639	17.684	(1.028)	2599511	45	45

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

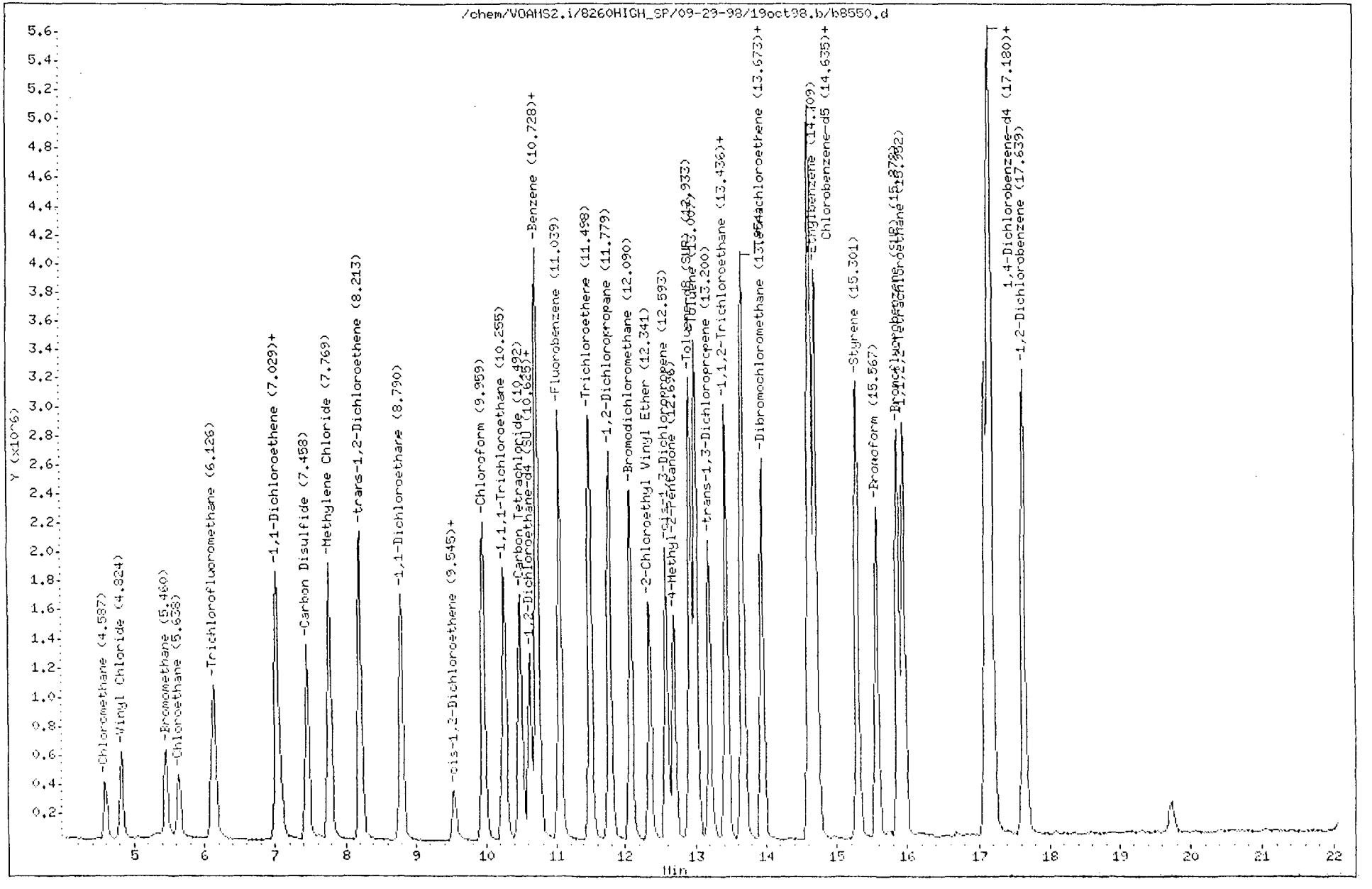
304185

Data File: /chem/VOAHS2.i/8260HIGH_SP/09-29-98/19oct98.b/b8550.d
Date : 19-OCT-98 14:37:00
Client ID:
Sample Info: 8361BS
Purge Volume: 5.0
Column phase: DB624

Instrument: VOAHS2.i
Operator: VOAHS 3
Column diameter: 0.53

304186

649



SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8270B

Matrix: SOIL

Level: LOW

Matrix Spike - Lab Sample No.: 86309

MS Sample from Lab Job No: H631

QA Batch: 4694

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,4-Dichlorobenzene	3500	0	2800	80	54-119
N-Nitroso-di-n-propylami	3500	0	3300	94	65-131
1,2,4-Trichlorobenzene	3500	0	3200	91	0-117
Acenaphthene	3500	37	3300	93	69-127
2,4-Dinitrotoluene	3500	0	3400	97	75-132
Pyrene	3500	580	4000	98	44-152

304187

SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8270B

Matrix: SOIL

Level: LOW

Matrix Spike - Lab Sample No.: 86309

MS Sample from Lab Job No: H631

QA Batch: 4694

Compound	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,4-Dichlorobenzene	3500	2800	80	0	40	54-119
N-Nitroso-di-n-propylami	3500	3600	103	9	40	65-131
1,2,4-Trichlorobenzene	3500	3100	89	3	40	0-117
Acenaphthene	3500	3300	93	0	40	69-127
2,4-Dinitrotoluene	3500	3400	97	0	40	75-132
Pyrene	3500	4000	98	0	40	44-152

Column to be used to flag recovery and RPD values with an asterik
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: out of 12 outside limits

COMMENTS: _____

304188

Data File: /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7434.d
Report Date: 12-Oct-98 14:44:04

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7434.d
Lab Smp Id: 86309MS Client Smp ID: B8-AMS
Inj Date : 10-OCT-98 19:44:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : 86309MS;30;2;1;4.5
Misc Info : H631;TCLBNA+20;4694;123
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/10oct98.b/8270C-REV..m
Meth Date : 10-Oct-98 15:00:03 pat Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 8 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	4.500	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
19 N-Nitrosodimethylamine	74	4.716	4.723	(0.381)	511400	39	2700(M)
71 Pyridine	79	4.752	4.744	(0.384)	597349	30	2100(M)
$ 16 2-Fluorophenol (SUR)	112	9.908	9.864	(0.801)	1749279	97	6800
$ 17 Phenol-d5 (SUR)	99	11.831	11.816	(0.956)	2378354	95	6600
1 Phenol	94	11.853	11.837	(0.958)	2606630	92	6400
73 Aniline	93	11.788	11.787	(0.953)	911073	31	2200(R)
20 bis(2-Chloroethyl)ether	93	11.939	11.931	(0.965)	934306	43	3000
2 2-Chlorophenol	128	12.018	12.010	(0.971)	2121189	100	7400
21 1,3-Dichlorobenzene	146	12.263	12.262	(0.991)	837766	39	2700
* 79 1,4-Dichlorobenzene-d4	152	12.371	12.370	(1.000)	510297	40	
22 1,4-Dichlorobenzene	146	12.400	12.399	(1.002)	877032	40	2800
74 Benzyl Alcohol	108	12.674	12.666	(1.024)	661942	46	3200
23 1,2-Dichlorobenzene	146	12.659	12.658	(1.023)	838692	41	2800
3 2-Methylphenol	108	12.882	12.882	(1.041)	1784229	94	6600
24 bis(2-chloroisopropyl)ether	45	12.890	12.889	(1.042)	2700282	47	3300(M)

304189

Data File: /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7434.d
Report Date: 12-Oct-98 14:44:04

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
	4 4-Methylphenol	108	13.163	13.148	(1.064)	2165202	110	7500
	25 N-Nitroso-di-n-propylamine	70	13.134	13.126	(1.062)	663406	47	3300
	26 Hexachloroethane	117	13.242	13.242	(1.070)	306588	41	2800
$	76 Nitrobenzene-d5 (SUR)	82	13.358	13.357	(0.917)	861076	45	3200
	27 Nitrobenzene	77	13.394	13.400	(0.919)	906919	35	2500
	28 Isophorone	82	13.847	13.811	(0.951)	2049072	50	3500(H)
	5 2-Nitrophenol	139	13.941	13.933	(0.957)	1326148	100	7200
	6 2,4-Dimethylphenol	122	14.049	14.041	(0.964)	1812645	96	6700
	15 Benzoic Acid	122	14.279	14.322	(0.980)	325401	32	2300(R)
	29 bis(2-Chloroethoxy)methane	93	14.186	14.178	(0.974)	1192463	52	3600
	7 2,4-Dichlorophenol	162	14.366	14.365	(0.986)	1744777	110	7700
	30 1,2,4-Trichlorobenzene	180	14.474	14.480	(0.994)	802307	46	3200
*	80 Naphthalene-d8	136	14.567	14.567	(1.000)	2217866	40	
	31 Naphthalene	128	14.611	14.610	(1.003)	3049965	49	3400
	32 4-Chloroaniline	127	14.711	14.711	(1.010)	655707	25	1700
	33 Hexachlorobutadiene	225	14.805	14.804	(1.016)	330796	42	2900
	8 4-Chloro-3-methylphenol	107	15.547	15.539	(1.067)	1941988	120	8200(R)
	34 2-Methylnaphthalene	142	15.770	15.769	(1.083)	1940931	49	3400
	35 Hexachlorocyclopentadiene	237	16.015	16.014	(0.915)	46494	14	1000
	9 2,4,6-Trichlorophenol	196	16.260	16.252	(0.929)	1255882	120	8100
	10 2,4,5-Trichlorophenol	196	16.325	16.324	(0.933)	1294693	110	8000
$	77 2-Fluorobiphenyl (SUR)	172	16.382	16.381	(0.936)	1995801	49	3400
	36 2-Chloronaphthalene	162	16.584	16.583	(0.947)	1766389	50	3500
	37 2-Nitroaniline	65	16.771	16.770	(0.958)	590617	46	3200
	38 Dimethylphthalate	163	17.059	17.066	(0.974)	2113053	46	3200
	40 2,6-Dinitrotoluene	165	17.174	17.181	(0.981)	539623	49	3400
	39 Acenaphthylene	152	17.268	17.274	(0.986)	2981159	48	3300
	41 3-Nitroaniline	138	17.455	17.454	(0.997)	514979	55	3800
*	82 Acenaphthene-d10	164	17.506	17.505	(1.000)	1263002	40	
	42 Acenaphthene	153	17.563	17.562	(1.003)	1818639	47	3300
	11 2,4-Dinitrophenol	184	17.650	17.656	(1.008)	367288	62	4300
	12 4-Nitrophenol	65	17.786	17.786	(1.016)	605005	100	7100
	44 2,4-Dinitrotoluene	165	17.858	17.858	(1.020)	767403	49	3400
	43 Dibenzofuran	168	17.851	17.851	(1.020)	2595178	50	3500
	45 Diethylphthalate	149	18.240	18.239	(1.042)	2163087	46	3200
	46 4-Chlorophenyl-phenylether	204	18.413	18.412	(1.052)	823046	48	3300
	47 Fluorene	166	18.420	18.419	(1.052)	2158161	52	3600
	48 4-Nitroaniline	138	18.499	18.499	(1.057)	620717	47	3200
	13 4,6-Dinitro-2-methylphenol	198	18.557	18.549	(0.929)	748471	91	6300
	49 N-Nitrosodiphenylamine	169	18.622	18.621	(0.932)	1481130	50	3500
	75 1,2-Diphenylhydrazine	77	18.679	18.686	(0.935)	2077508	46	3200
$	18 2,4,6-Tribromophenol (SUR)	330	18.831	18.823	(1.076)	563922	90	6300
	50 4-Bromophenyl-phenylether	248	19.227	19.226	(0.963)	479535	45	3200
	51 Hexachlorobenzene	284	19.335	19.334	(0.968)	568693	48	3300
	14 Pentachlorophenol	266	19.673	19.672	(0.985)	394808	80	5600
*	83 Phenanthrene-d10	188	19.976	19.975	(1.000)	1964439	40	
	52 Phenanthrene	178	20.019	20.018	(1.002)	3143263	54	3800

304190

Data File: /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7434.d
Report Date: 12-Oct-98 14:44:04

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
53 Anthracene	178	20.105	20.105	(1.006)	2987530	49	3400
54 Carbazole	167	20.379	20.378	(1.020)	2971575	48	3400
55 Di-n-butylphthalate	149	20.933	20.933	(1.048)	4124051	50	3500
56 Fluoranthene	202	21.992	21.991	(1.101)	3256323	56	3900
58 Benzidine	184	22.215	22.222	(1.112)	27142	0.91	64(a)
57 Pyrene	202	22.374	22.373	(0.918)	3355401	57	4000
$ 78 Terphenyl-d14 (SUR)	244	22.611	22.618	(0.928)	2238255	50	3500
59 Butylbenzylphthalate	149	23.418	23.417	(0.961)	1920533	51	3600
60 3,3'-Dichlorobenzidine	252	24.304	24.310	(0.997)	856440	39	2700
61 Benzo(a)anthracene	228	24.347	24.353	(0.999)	2917381	50	3500
63 bis(2-Ethylhexyl)phthalate	149	24.354	24.353	(0.999)	2447919	52	3600
* 81 Chrysene-d12	240	24.376	24.375	(1.000)	1706742	40	
62 Chrysene	228	24.419	24.418	(1.002)	3121848	55	3800
64 Di-n-octylphthalate	149	25.528	25.527	(0.931)	4775446	50	3500
65 Benzo(b)fluoranthene	252	26.450	26.449	(0.965)	3187265	51	3600
66 Benzo(k)fluoranthene	252	26.522	26.521	(0.967)	3296560	52	3600
67 Benzo(a)pyrene	252	27.278	27.270	(0.995)	3057803	53	3700
* 84 Perylene-d12	264	27.415	27.414	(1.000)	1737623	40	
68 Indeno(1,2,3-cd)pyrene	276	31.044	31.029	(1.132)	3014869	48	3400(M)
69 Dibenz(a,h)anthracene	278	31.138	31.123	(1.136)	2785933	47	3200
70 Benzo(g,h,i)perylene	276	32.189	32.167	(1.174)	2856549	47	3300

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304191

Data File: /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7434.d
Date : 10-OCT-98 19:44:00
Client ID: B8-AMS
Sample Info: 86309MS;30;2;1;4.5

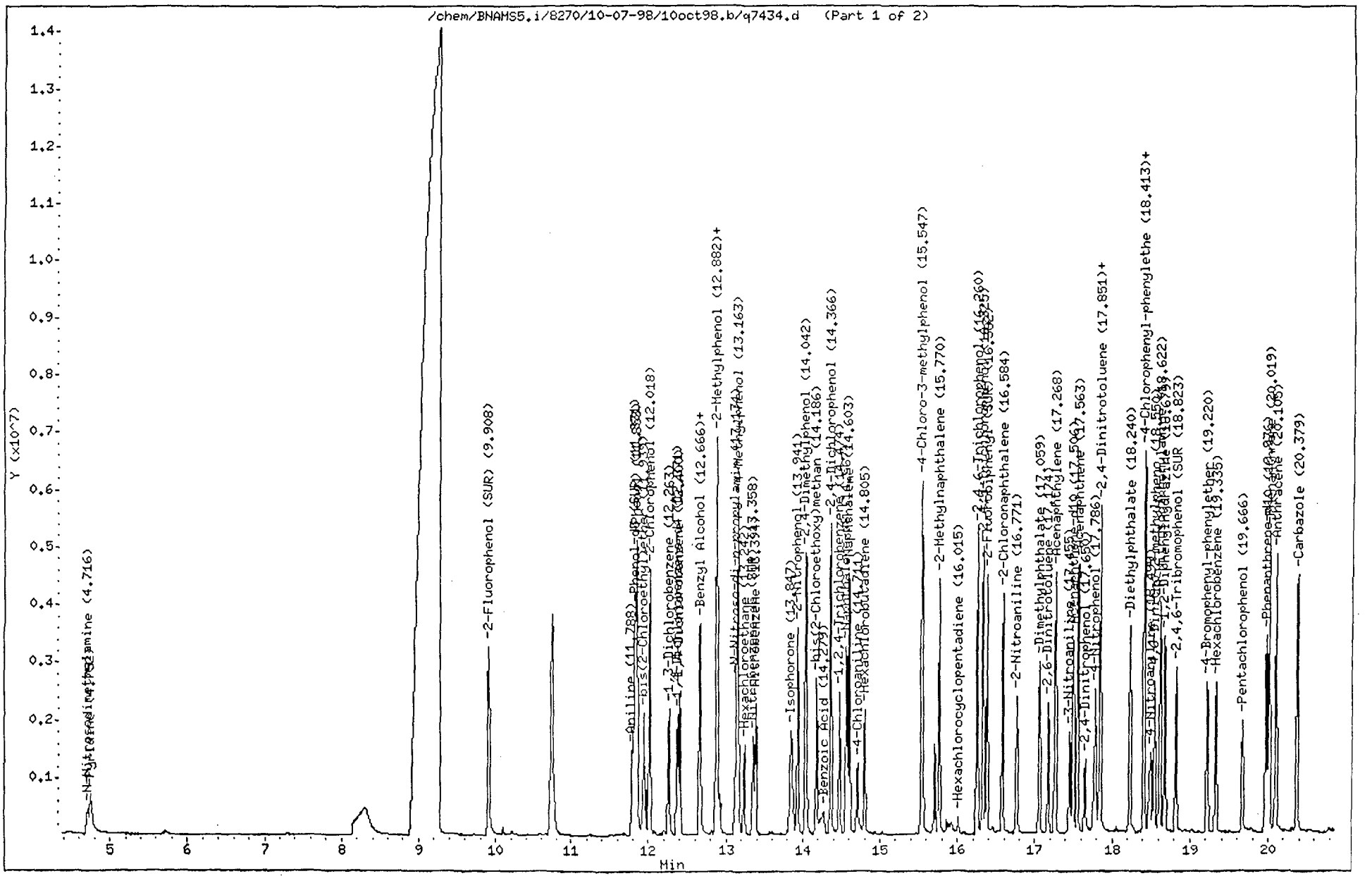
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS3
Column diameter: 0.25

304192

655



Data File: /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7434.d
Date : 10-OCT-98 19:44:00
Client ID: B8-AMS
Sample Info: 86309MS;30;2;1;4.5

Instrument: BNAMS5.i

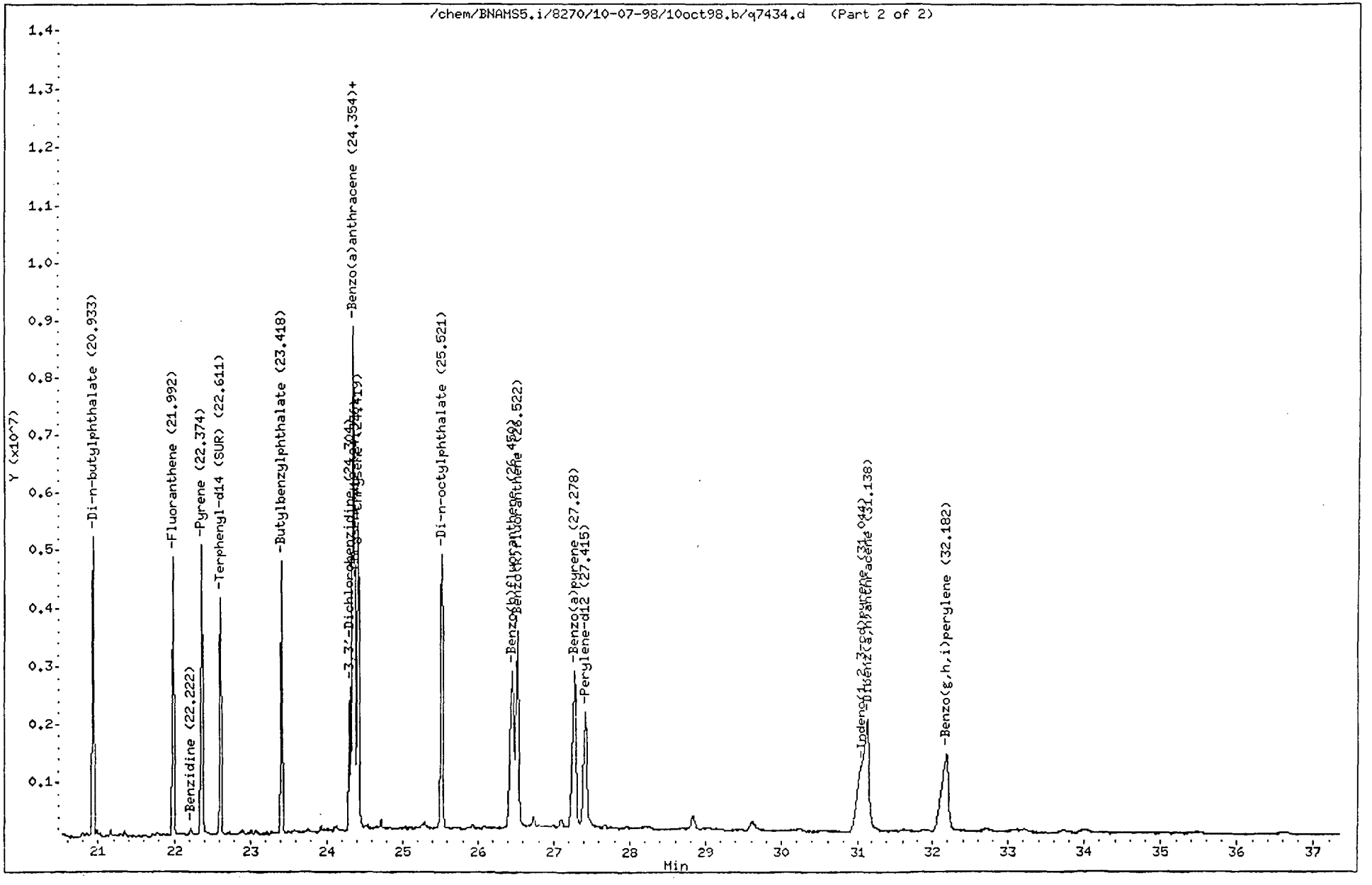
Operator: BNAMS3

304193

Column phase: DB-5

Column diameter: 0.25

656



Data File: /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7435.d
Report Date: 12-Oct-98 14:44:21

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7435.d
Lab Smp Id: 86309MSD Client Smp ID: B8-AMS
Inj Date : 10-OCT-98 20:31:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : 86309MSD;30;2;1;4.5
Misc Info : H631;TCLBNA+20;4694;123
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/10oct98.b/8270C-REV..m
Meth Date : 10-Oct-98 15:00:03 pat Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 9 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	4.500	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
19 N-Nitrosodimethylamine	74	4.713	4.723	(0.381)	487983	41	2900(M)
71 Pyridine	79	4.757	4.744	(0.385)	523094	29	2000(M)
$ 16 2-Fluorophenol (SUR)	112	9.906	9.864	(0.801)	1720568	110	7400
$ 17 Phenol-d5 (SUR)	99	11.828	11.816	(0.956)	2330764	100	7200
1 Phenol	94	11.857	11.837	(0.959)	2494143	99	6900
73 Aniline	93	11.792	11.787	(0.953)	987586	38	2600
20 bis(2-Chloroethyl)ether	93	11.944	11.931	(0.966)	870914	45	3100
2 2-Chlorophenol	128	12.023	12.010	(0.972)	1998345	110	7800
21 1,3-Dichlorobenzene	146	12.260	12.262	(0.991)	745794	39	2700
* 79 1,4-Dichlorobenzene-d4	152	12.368	12.370	(1.000)	456992	40	
22 1,4-Dichlorobenzene	146	12.404	12.399	(1.003)	780086	40	2800
74 Benzyl Alcohol	108	12.671	12.666	(1.024)	644613	50	3500
23 1,2-Dichlorobenzene	146	12.664	12.658	(1.024)	763101	41	2900
3 2-Methylphenol	108	12.887	12.882	(1.042)	1725378	100	7100
24 bis(2-chloroisopropyl)ether	45	12.873	12.889	(1.041)	2562468	50	3500(M)

304194

Data File: /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7435.d
Report Date: 12-Oct-98 14:44:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
	4 4-Methylphenol	108	13.161	13.148	(1.064)	2094162	120	8100
	25 N-Nitroso-di-n-propylamine	70	13.132	13.126	(1.062)	651972	52	3600
	26 Hexachloroethane	117	13.240	13.242	(1.070)	273914	41	2800
$	76 Nitrobenzene-d5 (SUR)	82	13.362	13.357	(0.917)	798970	44	3100
	27 Nitrobenzene	77	13.391	13.400	(0.919)	858789	35	2400
	28 Isophorone	82	13.845	13.811	(0.950)	2009769	51	3600(H)
	5 2-Nitrophenol	139	13.938	13.933	(0.957)	1229369	100	7000
	6 2,4-Dimethylphenol	122	14.046	14.041	(0.964)	1764190	99	6900
	15 Benzoic Acid	122	14.270	14.322	(0.979)	251896	26	1800(RH)
	29 bis(2-Chloroethoxy)methane	93	14.183	14.178	(0.973)	1153248	53	3700
	7 2,4-Dichlorophenol	162	14.363	14.365	(0.986)	1670031	110	7700
	30 1,2,4-Trichlorobenzene	180	14.478	14.480	(0.994)	739180	45	3100
*	80 Naphthalene-d8	136	14.572	14.567	(1.000)	2111813	40	
	31 Naphthalene	128	14.608	14.610	(1.002)	2893365	49	3400
	32 4-Chloroaniline	127	14.709	14.711	(1.009)	722848	29	2000
	33 Hexachlorobutadiene	225	14.802	14.804	(1.016)	306902	41	2800
	8 4-Chloro-3-methylphenol	107	15.551	15.539	(1.067)	1867668	120	8300(R)
	34 2-Methylnaphthalene	142	15.767	15.769	(1.082)	1820357	48	3300
	35 Hexachlorocyclopentadiene	237	16.012	16.014	(0.915)	66469	21	1400
	9 2,4,6-Trichlorophenol	196	16.257	16.252	(0.929)	1213199	110	7900
	10 2,4,5-Trichlorophenol	196	16.329	16.324	(0.933)	1256555	110	7800
$	77 2-Fluorobiphenyl (SUR)	172	16.380	16.381	(0.936)	1939942	48	3300
	36 2-Chloronaphthalene	162	16.581	16.583	(0.947)	1693593	48	3400
	37 2-Nitroaniline	65	16.768	16.770	(0.958)	598600	48	3300
	38 Dimethylphthalate	163	17.064	17.066	(0.975)	2111644	47	3300
	40 2,6-Dinitrotoluene	165	17.179	17.181	(0.981)	526907	49	3400
	39 Acenaphthylene	152	17.273	17.274	(0.987)	2957914	48	3300
	41 3-Nitroaniline	138	17.460	17.454	(0.998)	495152	53	3700
*	82 Acenaphthene-d10	164	17.503	17.505	(1.000)	1251774	40	
	42 Acenaphthene	153	17.561	17.562	(1.003)	1778788	47	3300
	11 2,4-Dinitrophenol	184	17.647	17.656	(1.008)	196694	33	2300
	12 4-Nitrophenol	65	17.784	17.786	(1.016)	609232	100	7200
	44 2,4-Dinitrotoluene	165	17.856	17.858	(1.020)	764170	49	3400
	43 Dibenzofuran	168	17.849	17.851	(1.020)	2551474	50	3500
	45 Diethylphthalate	149	18.238	18.239	(1.042)	2162209	46	3200
	46 4-Chlorophenyl-phenylether	204	18.410	18.412	(1.052)	822350	48	3400
	47 Fluorene	166	18.418	18.419	(1.052)	2140375	52	3600
	48 4-Nitroaniline	138	18.497	18.499	(1.057)	625218	47	3300
	13 4,6-Dinitro-2-methylphenol	198	18.554	18.549	(0.929)	634282	77	5400
	49 N-Nitrosodiphenylamine	169	18.619	18.621	(0.932)	1478694	50	3500
	75 1,2-Diphenylhydrazine	77	18.684	18.686	(0.935)	2103168	47	3300
$	18 2,4,6-Tribromophenol (SUR)	330	18.828	18.823	(1.076)	608869	98	6900
	50 4-Bromophenyl-phenylether	248	19.224	19.226	(0.963)	484023	46	3200
	51 Hexachlorobenzene	284	19.332	19.334	(0.968)	566948	48	3300
	14 Pentachlorophenol	266	19.671	19.672	(0.985)	401897	81	5700
*	83 Phenanthrene-d10	188	19.973	19.975	(1.000)	1962935	40	
	52 Phenanthrene	178	20.023	20.018	(1.003)	3202766	55	3800

304195

Data File: /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7435.d
Report Date: 12-Oct-98 14:44:21

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/Kg)
53 Anthracene	178	20.103	20.105	(1.006)	2963254	49	3400
54 Carbazole	167	20.376	20.378	(1.020)	3014040	49	3400
55 Di-n-butylphthalate	149	20.931	20.933	(1.048)	4120059	50	3500
56 Fluoranthene	202	21.997	21.991	(1.101)	3262358	56	3900
58 Benzidine	184	22.205	22.222	(1.112)	72115	2.4	170(a)
57 Pyrene	202	22.371	22.373	(0.918)	3347774	57	4000
$ 78 Terphenyl-d14 (SUR)	244	22.616	22.618	(0.928)	2236501	50	3500
59 Butylbenzylphthalate	149	23.415	23.417	(0.961)	1887884	50	3500
60 3,3'-Dichlorobenzidine	252	24.308	24.310	(0.997)	978806	44	3100
61 Benzo(a)anthracene	228	24.351	24.353	(0.999)	2908654	50	3500
63 bis(2-Ethylhexyl)phthalate	149	24.351	24.353	(0.999)	2384988	50	3500
* 81 Chrysene-d12	240	24.373	24.375	(1.000)	1703616	40	
62 Chrysene	228	24.423	24.418	(1.002)	3040924	54	3800
64 Di-n-octylphthalate	149	25.525	25.527	(0.931)	4638858	50	3500
65 Benzo(b)fluoranthene	252	26.447	26.449	(0.965)	3135168	51	3600
66 Benzo(k)fluoranthene	252	26.519	26.521	(0.967)	3229200	51	3600
67 Benzo(a)pyrene	252	27.275	27.270	(0.995)	2999891	53	3700
* 84 Perylene-d12	264	27.412	27.414	(1.000)	1712019	40	
68 Indeno(1,2,3-cd)pyrene	276	31.013	31.029	(1.131)	3034019	50	3400(M)
69 Dibenz(a,h)anthracene	278	31.121	31.123	(1.135)	2795010	47	3300
70 Benzo(g,h,i)perylene	276	32.165	32.167	(1.173)	2910061	49	3400

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304196

Data File: /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7435.d
Date : 10-OCT-98 20:31:00
Client ID: B8-AMS
Sample Info: 86309MSD;30;2;1;4.5

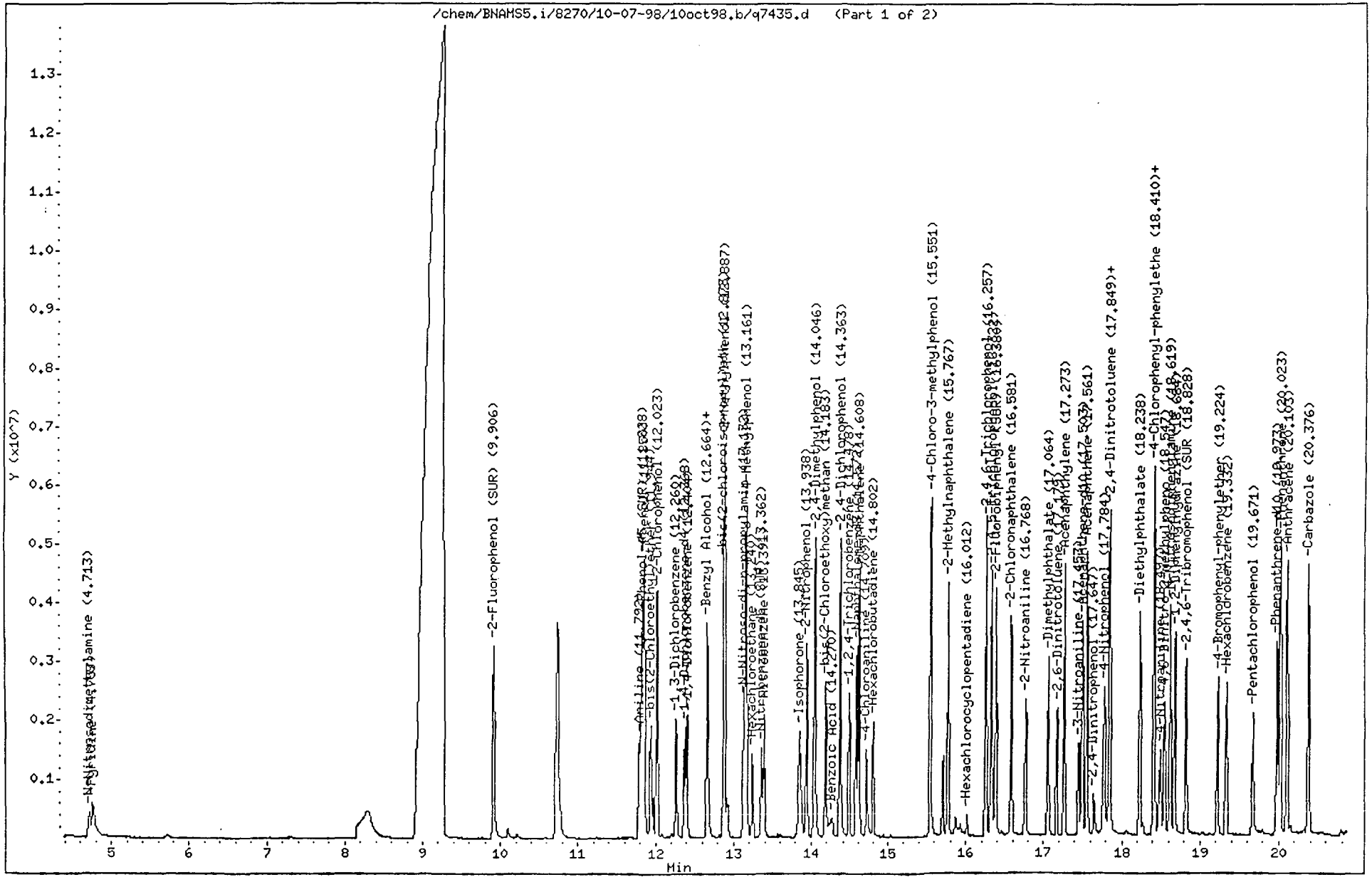
Instrument: BNAMS5.i

Operator: BNAMS3

304197

Column phase: DB-5

Column diameter: 0.25



660

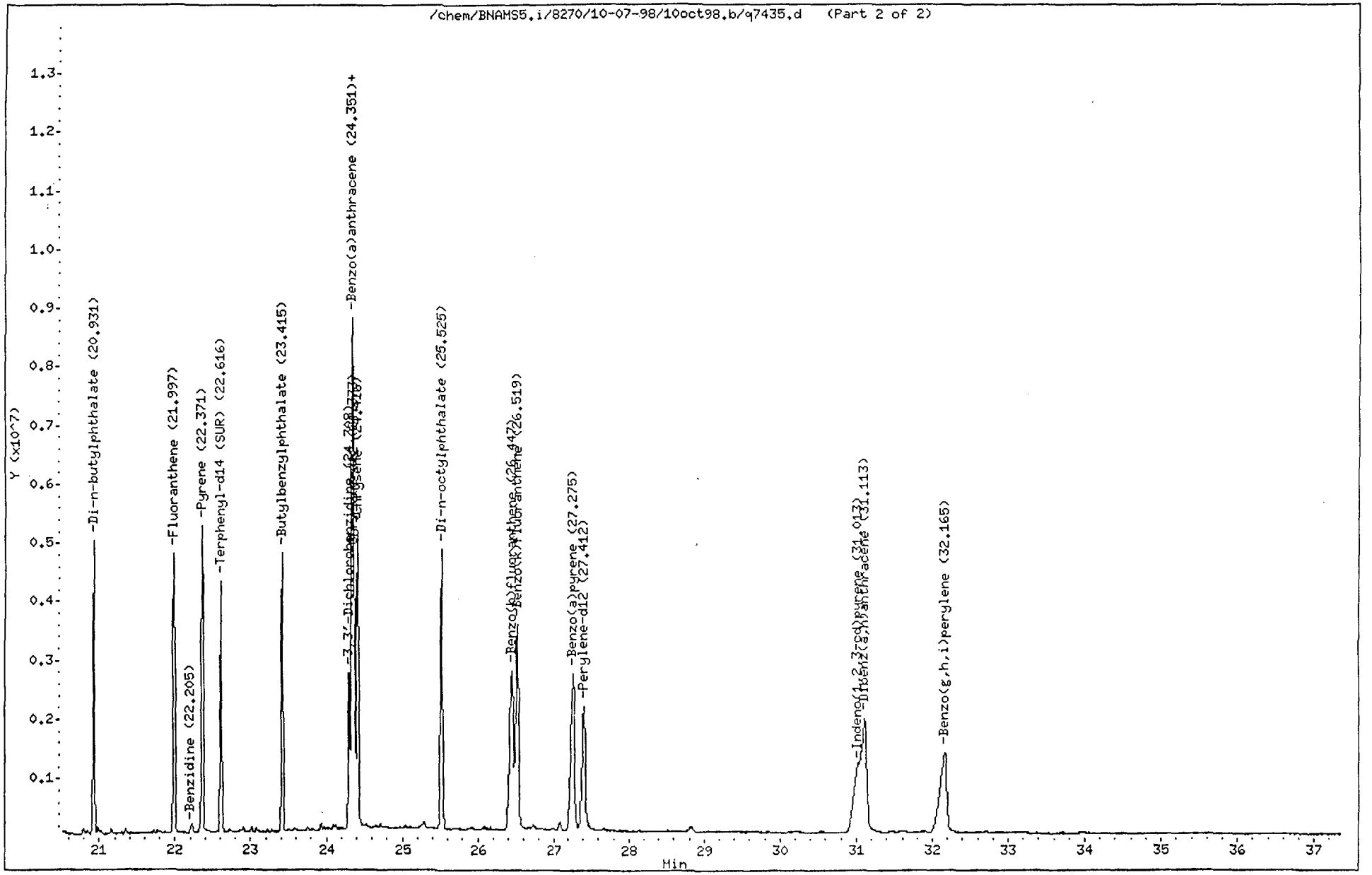
Data File: /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7435.d
Date : 10-OCT-98 20:31:00
Client ID: B8-AMS
Sample Info: 86309MSD;30;2;1;4.5

Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS3
Column diameter: 0.25

304198



Data File: /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7428.d
Report Date: 12-Oct-98 14:41:29

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7428.d
Lab Smp Id: 4694BS Client Smp ID: BNA
Inj Date : 10-OCT-98 15:05:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : 4694BS;30;2;1;
Misc Info : 4694BS;BNA;4694;;
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/10oct98.b/8270C-REV..m
Meth Date : 10-Oct-98 15:00:03 pat Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 2 QC Sample: BS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
19 N-Nitrosodimethylamine	74	4.714	4.723	(0.381)	476066	40	2700
71 Pyridine	79	4.758	4.744	(0.384)	552252	30	2000(M)
$ 16 2-Fluorophenol (SUR)	112	9.907	9.864	(0.800)	1761432	110	7200
$ 17 Phenol-d5 (SUR)	99	11.829	11.816	(0.956)	2315524	100	6800
1 Phenol	94	11.858	11.837	(0.958)	2493914	98	6500
73 Aniline	93	11.793	11.787	(0.953)	1208035	46	3100
20 bis(2-Chloroethyl)ether	93	11.945	11.931	(0.965)	840345	43	2900
2 2-Chlorophenol	128	12.024	12.010	(0.971)	2017627	110	7400
21 1,3-Dichlorobenzene	146	12.261	12.262	(0.991)	761111	40	2600
* 79 1,4-Dichlorobenzene-d4	152	12.377	12.370	(1.000)	459945	40	
22 1,4-Dichlorobenzene	146	12.405	12.399	(1.002)	798174	41	2700
74 Benzyl Alcohol	108	12.672	12.666	(1.024)	619591	48	3200
23 1,2-Dichlorobenzene	146	12.665	12.658	(1.023)	762098	41	2700
3 2-Methylphenol	108	12.888	12.882	(1.041)	1731492	100	6800
24 bis(2-chloroisopropyl)ether	45	12.874	12.889	(1.040)	2437790	47	3100(M)

304199

Data File: /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7428.d
Report Date: 12-Oct-98 14:41:29

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
	4 4-Methylphenol	108	13.162	13.148	(1.063)	2100551	120	7700
	25 N-Nitroso-di-n-propylamine	70	13.133	13.126	(1.061)	623574	49	3300
	26 Hexachloroethane	117	13.241	13.242	(1.070)	278646	41	2700
$	76 Nitrobenzene-d5 (SUR)	82	13.363	13.357	(0.917)	788227	46	3000
	27 Nitrobenzene	77	13.392	13.400	(0.919)	826276	36	2400
	28 Isophorone	82	13.846	13.811	(0.950)	1946653	52	3500(H)
	5 2-Nitrophenol	139	13.939	13.933	(0.957)	1206642	100	6900
	6 2,4-Dimethylphenol	122	14.047	14.041	(0.964)	1741130	100	6800
	15 Benzoic Acid	122	14.292	14.322	(0.981)	375789	41	2800(R)
	29 bis(2-Chloroethoxy)methane	93	14.184	14.178	(0.973)	1097122	53	3500
	7 2,4-Dichlorophenol	162	14.371	14.365	(0.986)	1609116	110	7500
	30 1,2,4-Trichlorobenzene	180	14.479	14.480	(0.994)	701962	45	3000
*	80 Naphthalene-d8	136	14.573	14.567	(1.000)	2002438	40	
	31 Naphthalene	128	14.609	14.610	(1.002)	2752554	49	3300
	32 4-Chloroaniline	127	14.717	14.711	(1.010)	974241	41	2700
	33 Hexachlorobutadiene	225	14.811	14.804	(1.016)	288939	41	2700
	8 4-Chloro-3-methylphenol	107	15.552	15.539	(1.067)	1849166	120	8300(AR)
	34 2-Methylnaphthalene	142	15.768	15.769	(1.082)	1744412	48	3200
	35 Hexachlorocyclopentadiene	237	16.021	16.014	(0.915)	104281	36	2400
	9 2,4,6-Trichlorophenol	196	16.258	16.252	(0.929)	1176480	120	8100(AR)
	10 2,4,5-Trichlorophenol	196	16.330	16.324	(0.933)	1217907	120	8000(R)
$	77 2-Fluorobiphenyl (SUR)	172	16.381	16.381	(0.936)	1816526	49	3300
	36 2-Chloronaphthalene	162	16.589	16.583	(0.948)	1589948	50	3300
	37 2-Nitroaniline	65	16.769	16.770	(0.958)	564140	49	3300
	38 Dimethylphthalate	163	17.065	17.066	(0.975)	2086081	51	3400
	40 2,6-Dinitrotoluene	165	17.180	17.181	(0.981)	515274	52	3500
	39 Acenaphthylene	152	17.274	17.274	(0.987)	2768553	49	3300
	41 3-Nitroaniline	138	17.461	17.454	(0.998)	551921	65	4400(R)
*	82 Acenaphthene-d10	164	17.504	17.505	(1.000)	1135742	40	
	42 Acenaphthene	153	17.562	17.562	(1.003)	1665773	48	3200
	11 2,4-Dinitrophenol	184	17.648	17.656	(1.008)	101345	19	1300(a)
	12 4-Nitrophenol	65	17.785	17.786	(1.016)	586232	110	7300
	44 2,4-Dinitrotoluene	165	17.857	17.858	(1.020)	744227	53	3500
	43 Dibenzofuran	168	17.850	17.851	(1.020)	2404160	52	3400
	45 Diethylphthalate	149	18.239	18.239	(1.042)	2135820	50	3300
	46 4-Chlorophenyl-phenylether	204	18.411	18.412	(1.052)	789969	51	3400
	47 Fluorene	166	18.419	18.419	(1.052)	2014696	54	3600
	48 4-Nitroaniline	138	18.498	18.499	(1.057)	636931	53	3600
	13 4,6-Dinitro-2-methylphenol	198	18.548	18.549	(0.929)	385568	51	3400
	49 N-Nitrosodiphenylamine	169	18.620	18.621	(0.932)	1440198	53	3600
	75 1,2-Diphenylhydrazine	77	18.685	18.686	(0.935)	2019004	50	3300
$	18 2,4,6-Tribromophenol (SUR)	330	18.829	18.823	(1.076)	602227	110	7200
	50 4-Bromophenyl-phenylether	248	19.225	19.226	(0.963)	464723	48	3200
	51 Hexachlorobenzene	284	19.333	19.334	(0.968)	544069	50	3300
	14 Pentachlorophenol	266	19.672	19.672	(0.985)	555299	120	8200(A)
*	83 Phenanthrene-d10	188	19.974	19.975	(1.000)	1791604	40	
	52 Phenanthrene	178	20.017	20.018	(1.002)	2781233	52	3500

304200

Data File: /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7428.d
Report Date: 12-Oct-98 14:41:30

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
53 Anthracene	178	20.104	20.105	(1.006)	2824929	51	3400
54 Carbazole	167	20.377	20.378	(1.020)	2895478	52	3400
55 Di-n-butylphthalate	149	20.932	20.933	(1.048)	3991830	53	3500
56 Fluoranthene	202	21.990	21.991	(1.101)	2794267	53	3500
58 Benzidine	184	22.206	22.222	(1.112)	589594	22	1400
57 Pyrene	202	22.372	22.373	(0.918)	2893988	53	3500
$ 78 Terphenyl-d14 (SUR)	244	22.617	22.618	(0.928)	2151836	52	3500
59 Butylbenzylphthalate	149	23.416	23.417	(0.961)	1842318	53	3500
60 3,3'-Dichlorobenzidine	252	24.302	24.310	(0.997)	921090	45	3000
61 Benzo(a)anthracene	228	24.352	24.353	(0.999)	2652754	50	3300
63 bis(2-Ethylhexyl)phthalate	149	24.352	24.353	(0.999)	2318449	53	3500
* 81 Chrysene-d12	240	24.374	24.375	(1.000)	1572143	40	
62 Chrysene	228	24.417	24.418	(1.002)	2827787	54	3600
64 Di-n-octylphthalate	149	25.526	25.527	(0.931)	4490043	52	3400
65 Benzo(b)fluoranthene	252	26.448	26.449	(0.965)	2873397	50	3400
66 Benzo(k)fluoranthene	252	26.520	26.521	(0.967)	3032504	52	3400
67 Benzo(a)pyrene	252	27.269	27.270	(0.995)	2770825	52	3500
* 84 Perylene-d12	264	27.413	27.414	(1.000)	1594923	40	
68 Indeno(1,2,3-cd)pyrene	276	31.014	31.029	(1.131)	2863962	50	3300(M)
69 Dibenz(a,h)anthracene	278	31.122	31.123	(1.135)	2795762	51	3400
70 Benzo(g,h,i)perylene	276	32.159	32.167	(1.173)	2877495	52	3400

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304201

Data File: /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7428.d
Date : 10-OCT-98 15:05:00
Client ID: BNA
Sample Info: 4694BS;30;2;1;

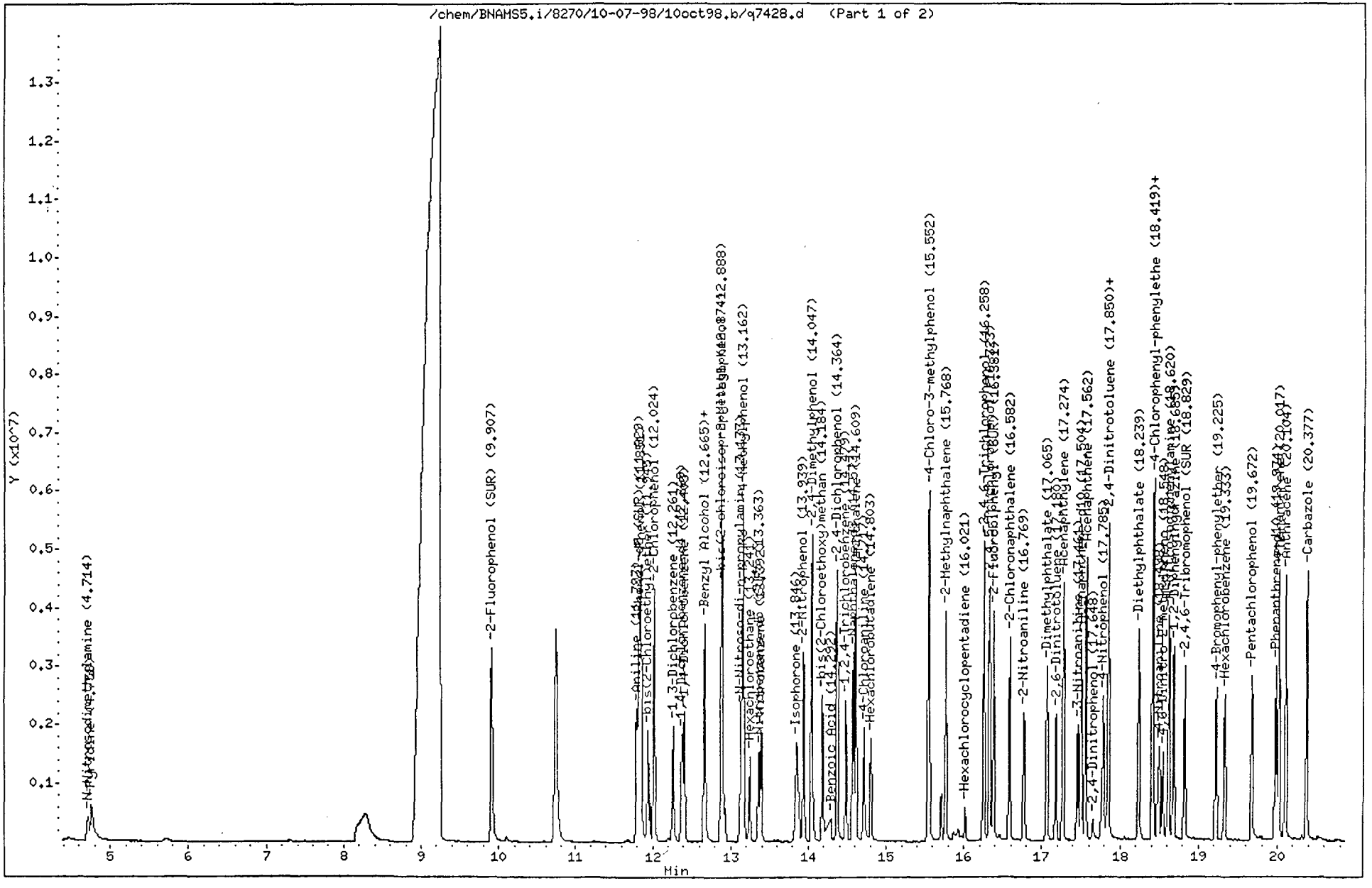
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS3
Column diameter: 0.25

304202

665



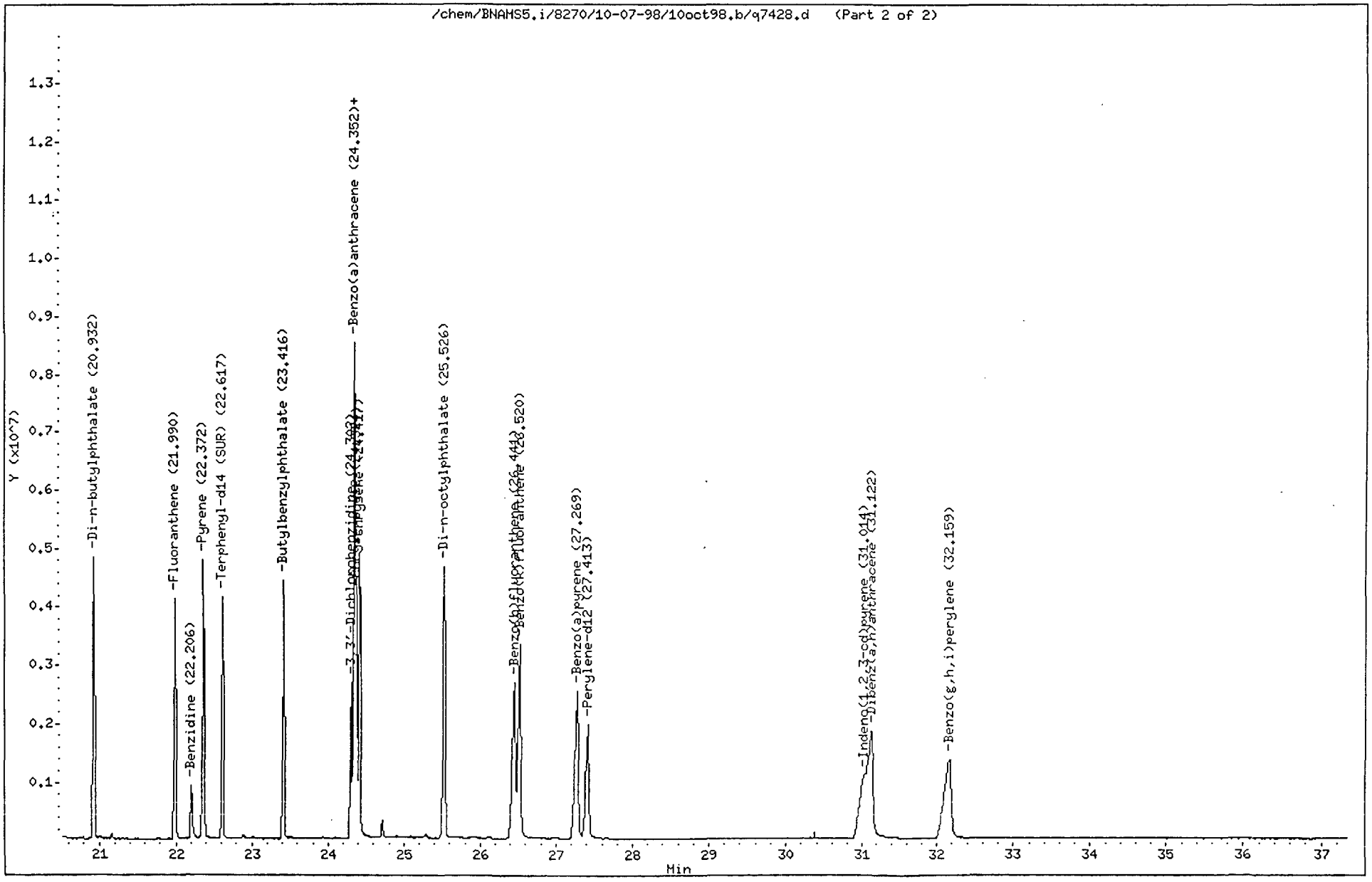
Data File: /chem/BNAMS5.i/8270/10-07-98/10oct98.b/q7428.d
Date : 10-OCT-98 15:05:00
Client ID: BNA
Sample Info: 4694BS;30;2;1;

Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS3
Column diameter: 0.25

304203



SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8270B

Matrix: SOIL

Level: LOW

Matrix Spike - Lab Sample No.: 88158

MS Sample from Lab Job No: H879

QA Batch: 4734

Compound	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,4-Dichlorobenzene	4100	0	3000	73	54-119
N-Nitroso-di-n-propylami	4100	0	4000	98	65-131
1,2,4-Trichlorobenzene	4100	0	3300	80	0-117
Acenaphthene	4100	0	4000	98	69-127
2,4-Dinitrotoluene	4100	0	4400	107	75-132
Pyrene	4100	0	5000	122	44-152

Compound	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,4-Dichlorobenzene	4100	3300	80	10	40	54-119
N-Nitroso-di-n-propylami	4100	4100	100	2	40	65-131
1,2,4-Trichlorobenzene	4100	3400	83	3	40	0-117
Acenaphthene	4100	4000	98	0	40	69-127
2,4-Dinitrotoluene	4100	4300	105	2	40	75-132
Pyrene	4100	4900	120	2	40	44-152

Column to be used to flag recovery and RPD values with an asterik
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS: _____

304204

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7587.d
Report Date: 21-Oct-98 00:38:24

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7587.d
Lab Smp Id: 88158 Client Smp ID: 291_PZ-54A
Inj Date : 16-OCT-98 21:16:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : 88158;30;2;1;19.5;
Misc Info : H879;TCLBNA+20;4734;123
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/8270C-REV..m
Meth Date : 19-Oct-98 13:24:46 wahied Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HSLBNAb.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	19.500	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
$ 16 2-Fluorophenol (SUR)	112	9.704	9.687	(0.794)	1028249	90	7400
$ 17 Phenol-d5 (SUR)	99	11.670	11.675	(0.955)	1438988	90	7400
* 79 1,4-Dichlorobenzene-d4	152	12.224	12.222	(1.000)	325636	40	
$ 76 Nitrobenzene-d5 (SUR)	82	13.211	13.216	(0.916)	440971	37	3000
* 80 Naphthalene-d8	136	14.421	14.426	(1.000)	1396810	40	
$ 77 2-Fluorobiphenyl (SUR)	172	16.235	16.241	(0.936)	1043197	40	3300
* 82 Acenaphthene-d10	164	17.352	17.357	(1.000)	809944	40	
$ 18 2,4,6-Tribromophenol (SUR)	330	18.669	18.682	(1.076)	356004	89	7400
* 83 Phenanthrene-d10	188	19.822	19.827	(1.000)	1271404	40	
$ 78 Terphenyl-d14 (SUR)	244	22.465	22.470	(0.928)	1392318	49	4100
* 81 Chrysene-d12	240	24.207	24.220	(1.000)	1080041	40	
* 84 Perylene-d12	264	27.117	27.129	(1.000)	1115518	40	

304205

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7587.d
Date : 16-OCT-98 21:16:00
Client ID: 291_PZ-54A
Sample Info: 88158;30;2;1;19.5;

Instrument: BNAMS5.i

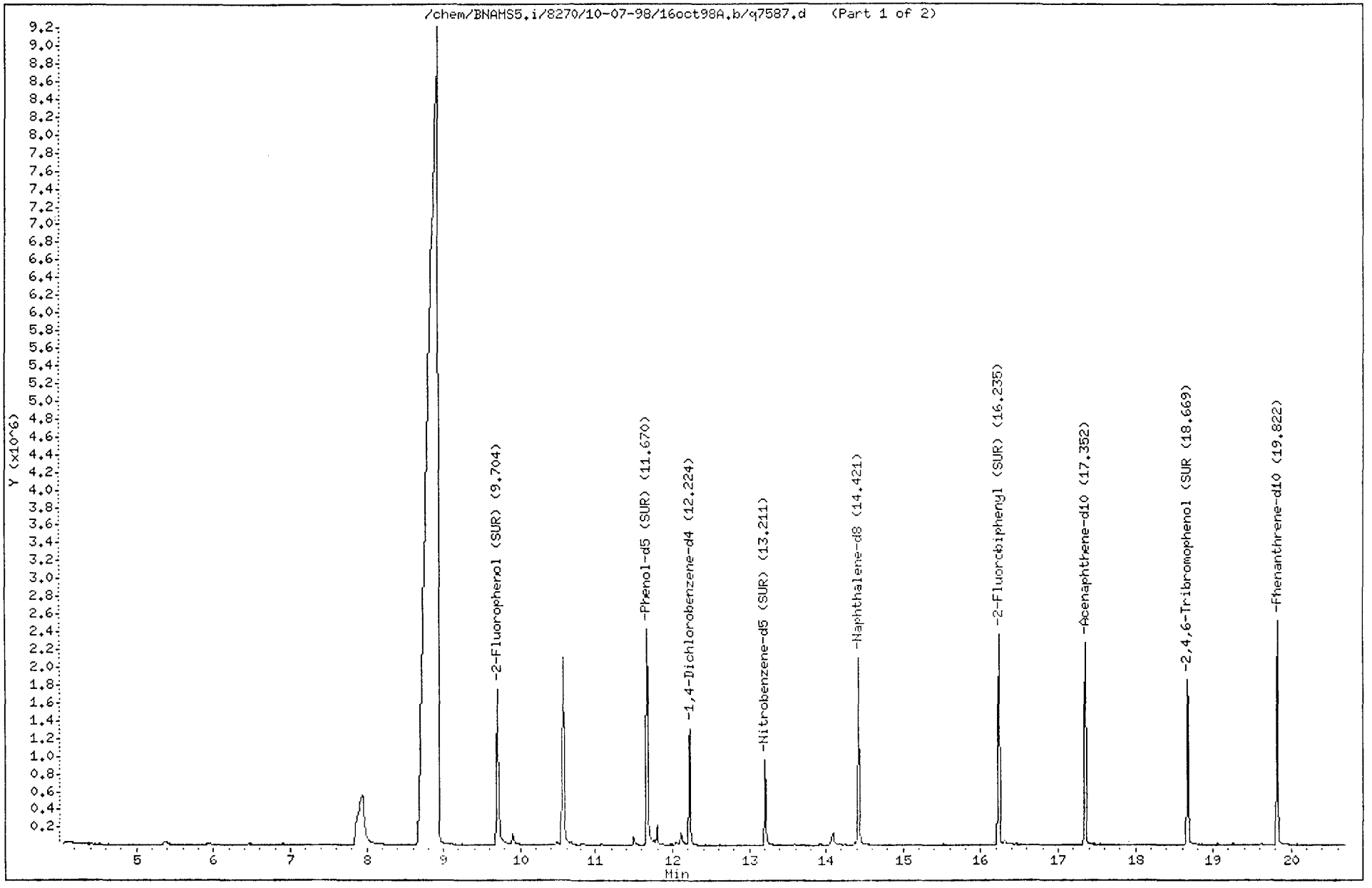
Operator: BNAMS3

304206

669

Column phase: DB-5

Column diameter: 0.25



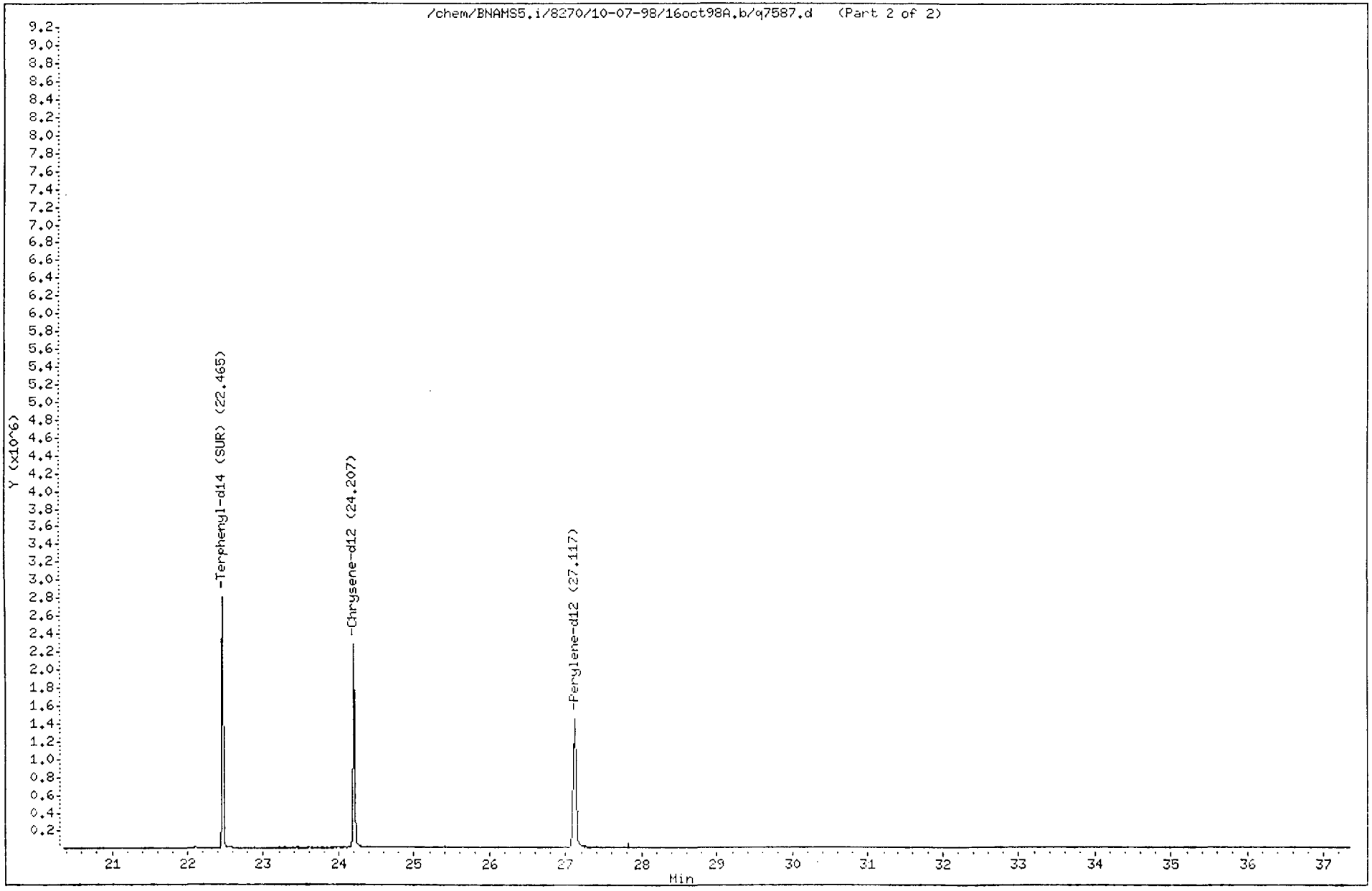
Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7587.d
Date : 16-OCT-98 21:16:00
Client ID: 291_PZ-54A
Sample Info: 88158;30;2;1;19.5;

Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS3
Column diameter: 0.25

304207



Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7587.d

Date : 16-OCT-98 21:16:00

Client ID: 291_PZ-54A

Instrument: BNAMS5.i

Sample Info: 88158;30;2;1;19.5;

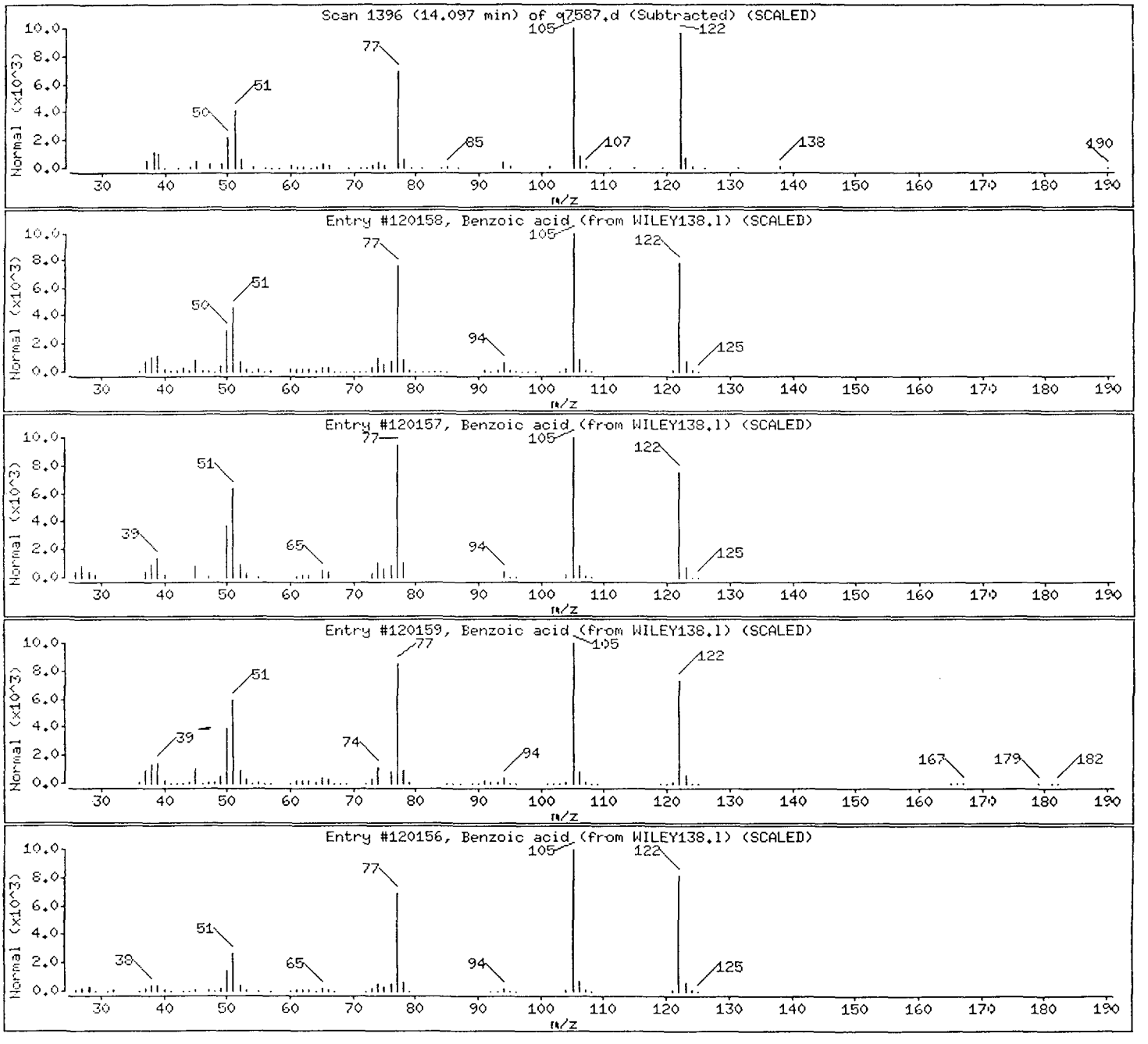
Operator: BNAMS3

304208

Column phase: DB-5

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzoic acid	65-85-0	WILEY138.1	120158	91	C7H6O2	122
Benzoic acid	65-85-0	WILEY138.1	120157	91	C7H6O2	122
Benzoic acid	65-85-0	WILEY138.1	120159	91	C7H6O2	122
Benzoic acid	65-85-0	WILEY138.1	120156	91	C7H6O2	122



Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7588.d
Report Date: 19-Oct-98 11:06:50

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7588.d
Lab Smp Id: 88158MS Client Smp ID: ALL
Inj Date : 16-OCT-98 22:02:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : 88158MS;30;2;1;19.5;
Misc Info : H879;ALL;4734;123
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/8270C-REV..m
Meth Date : 16-Oct-98 23:23:10 ctp Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 4 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	19.500	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
19 N-Nitrosodimethylamine	74	4.437	4.452	(0.363)	328349	35	2900
71 Pyridine	79	4.481	4.474	(0.367)	316572	22	1800
$ 16 2-Fluorophenol (SUR)	112	9.716	9.687	(0.795)	1264198	100	8300
$ 17 Phenol-d5 (SUR)	99	11.682	11.675	(0.956)	1684898	96	7900
1 Phenol	94	11.711	11.697	(0.958)	1797685	91	7500
73 Aniline	93	11.639	11.639	(0.952)	845635	41	3400
20 bis(2-Chloroethyl)ether	93	11.797	11.790	(0.965)	614329	40	3400
2 2-Chlorophenol	128	11.869	11.862	(0.971)	1476062	100	8700
21 1,3-Dichlorobenzene	146	12.114	12.114	(0.991)	519259	35	2900
* 79 1,4-Dichlorobenzene-d4	152	12.222	12.222	(1.000)	358186	40	
22 1,4-Dichlorobenzene	146	12.258	12.258	(1.003)	544592	36	3000
74 Benzyl Alcohol	108	12.532	12.525	(1.025)	502377	50	4100
23 1,2-Dichlorobenzene	146	12.517	12.518	(1.024)	533997	37	3000
3 2-Methylphenol	108	12.748	12.748	(1.043)	1294132	97	8100
24 bis(2-chloroisopropyl)ether	45	12.755	12.748	(1.044)	1705258	42	3500(M)

304209

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7588.d
Report Date: 19-Oct-98 11:06:50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
4 4-Methylphenol	108	13.029	13.014	(1.066)	1558671	110	9200
25 N-Nitroso-di-n-propylamine	70	12.993	12.986	(1.063)	475979	48	4000
26 Hexachloroethane	117	13.093	13.101	(1.071)	192189	36	3000
$ 76 Nitrobenzene-d5 (SUR)	82	13.216	13.216	(0.916)	580578	41	3400
27 Nitrobenzene	77	13.252	13.259	(0.919)	598167	31	2600
28 Isophorone	82	13.706	13.670	(0.950)	1500297	49	4000
5 2-Nitrophenol	139	13.799	13.792	(0.957)	938416	98	8100
6 2,4-Dimethylphenol	122	13.914	13.907	(0.965)	1332484	95	7900
15 Benzoic Acid	122	14.267	14.188	(0.989)	973647	130	11000(ARM)
29 bis(2-Chloroethoxy)methane	93	14.051	14.044	(0.974)	851933	50	4100
7 2,4-Dichlorophenol	162	14.224	14.224	(0.986)	1219242	100	8600
30 1,2,4-Trichlorobenzene	180	14.339	14.339	(0.994)	517524	40	3300
* 80 Naphthalene-d8	136	14.426	14.426	(1.000)	1648700	40	
31 Naphthalene	128	14.462	14.469	(1.002)	2087202	45	3700
32 4-Chloroaniline	127	14.577	14.577	(1.010)	723994	37	3100
33 Hexachlorobutadiene	225	14.671	14.671	(1.017)	212124	36	3000
8 4-Chloro-3-methylphenol	107	15.412	15.412	(1.068)	1470098	120	9900(R)
34 2-Methylnaphthalene	142	15.628	15.629	(1.083)	1380487	46	3800
35 Hexachlorocyclopentadiene	237	15.880	15.881	(0.915)	49353	20	1700
9 2,4,6-Trichlorophenol	196	16.118	16.118	(0.928)	910398	110	9400
10 2,4,5-Trichlorophenol	196	16.183	16.183	(0.932)	967983	110	9500
$ 77 2-Fluorobiphenyl (SUR)	172	16.248	16.241	(0.936)	1385247	45	3800
36 2-Chloronaphthalene	162	16.442	16.442	(0.947)	1273345	48	4000
103 Diphenyl Ether	170	16.579	16.579	(0.955)	4162	0.23	19(a)
37 2-Nitroaniline	65	16.637	16.637	(0.958)	473277	50	4200
38 Dimethylphthalate	163	16.932	16.932	(0.975)	1704171	50	4200
40 2,6-Dinitrotoluene	165	17.040	17.040	(0.981)	428575	53	4400
39 Acenaphthylene	152	17.126	17.126	(0.986)	2224195	48	4000
41 3-Nitroaniline	138	17.321	17.321	(0.998)	441147	63	5200(R)
* 82 Acenaphthene-d10	164	17.364	17.357	(1.000)	940231	40	
42 Acenaphthene	153	17.421	17.422	(1.003)	1376785	48	4000
11 2,4-Dinitrophenol	184	17.515	17.515	(1.009)	109528	25	2000
12 4-Nitrophenol	65	17.652	17.645	(1.017)	465496	100	8700
44 2,4-Dinitrotoluene	165	17.724	17.717	(1.021)	613189	53	4400
43 Dibenzofuran	168	17.710	17.710	(1.020)	2008007	52	4300
45 Diethylphthalate	149	18.106	18.099	(1.043)	1764295	50	4100
46 4-Chlorophenyl-phenylether	204	18.271	18.271	(1.052)	625704	49	4000
47 Fluorene	166	18.278	18.279	(1.053)	1683834	54	4500
48 4-Nitroaniline	138	18.358	18.358	(1.057)	507329	51	4200
13 4,6-Dinitro-2-methylphenol	198	18.408	18.408	(0.928)	355448	58	4800
49 N-Nitrosodiphenylamine	169	18.480	18.480	(0.932)	1191708	54	4500
75 1,2-Diphenylhydrazine	77	18.538	18.538	(0.935)	1578974	48	4000
$ 18 2,4,6-Tribromophenol (SUR)	330	18.682	18.682	(1.076)	457142	98	8100
50 4-Bromophenyl-phenylether	248	19.085	19.085	(0.963)	382106	49	4000
51 Hexachlorobenzene	284	19.193	19.186	(0.968)	452957	51	4200
14 Pentachlorophenol	266	19.531	19.524	(0.985)	440502	120	9900(A)
* 83 Phenanthrene-d10	188	19.827	19.827	(1.000)	1454348	40	

304210

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7588.d
Report Date: 19-Oct-98 11:06:50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
52 Phenanthrene	178	19.870	19.870	(1.002)	2289555	53	4400
53 Anthracene	178	19.956	19.957	(1.007)	2337497	52	4300
54 Carbazole	167	20.230	20.230	(1.020)	2258056	50	4100
55 Di-n-butylphthalate	149	20.799	20.799	(1.049)	3290343	54	4500
56 Fluoranthene	202	21.843	21.843	(1.102)	2245713	52	4300
58 Benzidine	184	22.066	22.074	(1.113)	152500	6.9	570(a)
57 Pyrene	202	22.218	22.218	(0.917)	2333775	60	5000
$ 78 Terphenyl-d14 (SUR)	244	22.470	22.470	(0.928)	1640378	56	4600
59 Butylbenzylphthalate	149	23.276	23.276	(0.961)	1474842	60	4900
60 3,3'-Dichlorobenzidine	252	24.155	24.162	(0.997)	675207	46	3800
61 Benzo(a)anthracene	228	24.198	24.198	(0.999)	2076241	55	4500
63 bis(2-Ethylhexyl)phthalate	149	24.212	24.212	(1.000)	1872875	60	5000
* 81 Chrysene-d12	240	24.220	24.220	(1.000)	1118147	40	
62 Chrysene	228	24.270	24.263	(1.002)	2194216	59	4900
64 Di-n-octylphthalate	149	25.343	25.343	(0.934)	3616072	53	4400
65 Benzo(b)fluoranthene	252	26.214	26.207	(0.966)	2255579	51	4200
66 Benzo(k)fluoranthene	252	26.279	26.279	(0.968)	2362548	52	4300
67 Benzo(a)pyrene	252	26.999	26.999	(0.995)	2203480	53	4400
* 84 Perylene-d12	264	27.136	27.129	(1.000)	1240738	40	
68 Indeno(1,2,3-cd)pyrene	276	30.578	30.564	(1.127)	2317892	52	4300(M)
69 Dibenz(a,h)anthracene	278	30.665	30.658	(1.130)	2223938	52	4300
70 Benzo(g,h,i)perylene	276	31.651	31.651	(1.166)	2325371	54	4400

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

304211

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7588.d
Date : 16-OCT-98 22:02:00
Client ID: ALL
Sample Info: 88158HS;30;2;1;19.5;

Instrument: BNAMS5.i

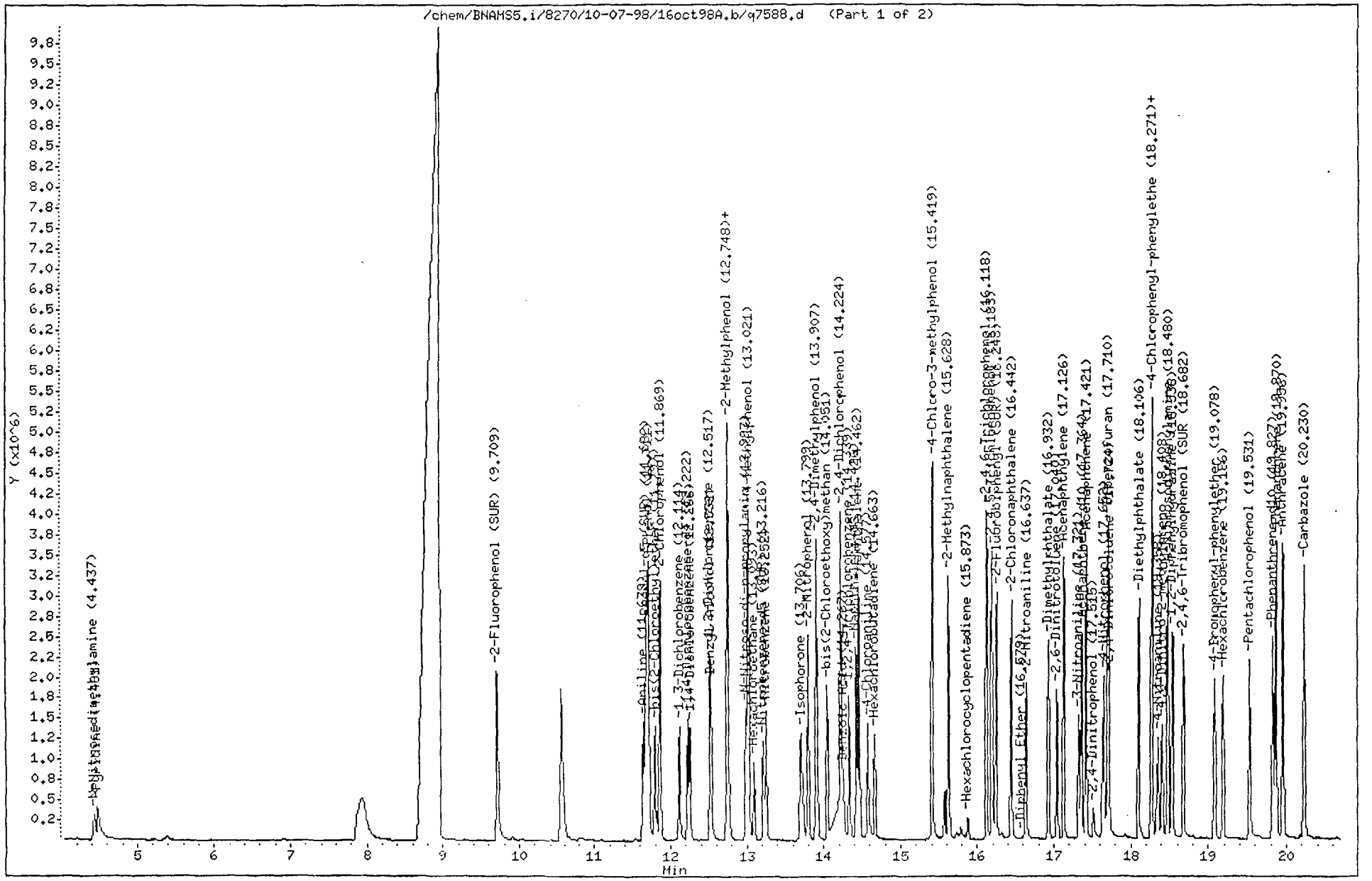
Operator: BNAMS3

304212

675

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7588.d
Date : 16-OCT-98 22:02:00
Client ID: ALL
Sample Info: 88158MS;30;2;1;19.5;

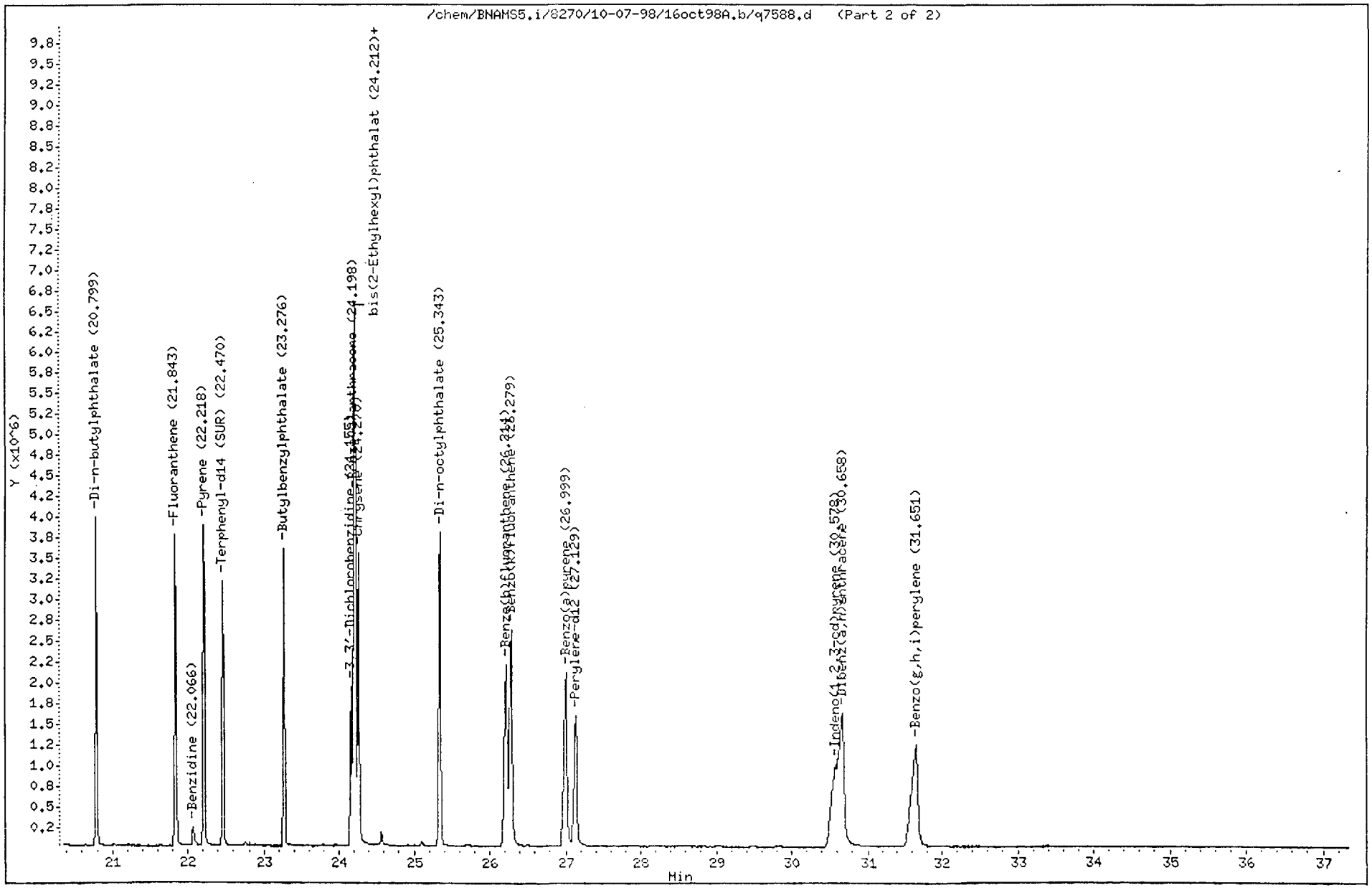
Column phase: DB-5

Instrument: BNAMS5.i

Operator: BNAMS3
Column diameter: 0.25

304213

676



Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7589.d
Report Date: 19-Oct-98 11:13:30

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7589.d
Lab Smp Id: 88158MSD Client Smp ID: ALL
Inj Date : 16-OCT-98 22:48:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : 88158MSD;30;2;1;19.5;
Misc Info : H879;ALL;4734;123
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/8270C-REV..m
Meth Date : 16-Oct-98 23:23:10 ctp Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 5 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	19.500	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
19 N-Nitrosodimethylamine	74	4.431	4.452	(0.363)	293510	35	2900
71 Pyridine	79	4.482	4.474	(0.367)	315332	25	2100
$ 16 2-Fluorophenol (SUR)	112	9.710	9.687	(0.794)	1171321	100	8600
$ 17 Phenol-d5 (SUR)	99	11.683	11.675	(0.956)	1573483	100	8200
1 Phenol	94	11.705	11.697	(0.958)	1660958	94	7800
73 Aniline	93	11.640	11.639	(0.952)	776939	42	3500
20 bis(2-Chloroethyl)ether	93	11.791	11.790	(0.965)	568968	42	3500
2 2-Chlorophenol	128	11.863	11.862	(0.971)	1373197	110	9000
21 1,3-Dichlorobenzene	146	12.115	12.114	(0.991)	514942	38	3200
* 79 1,4-Dichlorobenzene-d4	152	12.223	12.222	(1.000)	320614	40	
22 1,4-Dichlorobenzene	146	12.252	12.258	(1.002)	535667	39	3300
74 Benzyl Alcohol	108	12.526	12.525	(1.025)	457575	51	4200
23 1,2-Dichlorobenzene	146	12.518	12.518	(1.024)	513431	40	3300
3 2-Methylphenol	108	12.742	12.748	(1.042)	1193288	100	8300
24 bis(2-chloroisopropyl)ether	45	12.749	12.748	(1.043)	1605787	44	3700(M)

304214

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7589.d
Report Date: 19-Oct-98 11:13:30

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
	4 4-Methylphenol	108	13.022	13.014	(1.065)	1454272	120	9600
	25 N-Nitroso-di-n-propylamine	70	12.986	12.986	(1.062)	435428	49	4100
	26 Hexachloroethane	117	13.095	13.101	(1.071)	188559	40	3300
$	76 Nitrobenzene-d5 (SUR)	82	13.217	13.216	(0.916)	520955	40	3400
	27 Nitrobenzene	77	13.253	13.259	(0.919)	553574	32	2600
	28 Isophorone	82	13.699	13.670	(0.950)	1419616	51	4200
	5 2-Nitrophenol	139	13.800	13.792	(0.957)	840751	97	8000
	6 2,4-Dimethylphenol	122	13.908	13.907	(0.964)	1169658	92	7600
	15 Benzoic Acid	122	14.211	14.188	(0.985)	564878	83	6900
	29 bis(2-Chloroethoxy)methane	93	14.052	14.044	(0.974)	795438	51	4200
	7 2,4-Dichlorophenol	162	14.225	14.224	(0.986)	1151365	110	8900
	30 1,2,4-Trichlorobenzene	180	14.340	14.339	(0.994)	472399	40	3400
*	80 Naphthalene-d8	136	14.427	14.426	(1.000)	1497217	40	
	31 Naphthalene	128	14.463	14.469	(1.002)	1917536	46	3800
	32 4-Chloroaniline	127	14.578	14.577	(1.010)	717264	40	3300
	33 Hexachlorobutadiene	225	14.664	14.671	(1.016)	196915	37	3100
	8 4-Chloro-3-methylphenol	107	15.413	15.412	(1.068)	1360647	120	10000(AR)
	34 2-Methylnaphthalene	142	15.629	15.629	(1.083)	1301717	48	4000
	35 Hexachlorocyclopentadiene	237	15.881	15.881	(0.915)	50980	23	1900
	9 2,4,6-Trichlorophenol	196	16.119	16.118	(0.929)	850151	110	9400
	10 2,4,5-Trichlorophenol	196	16.184	16.183	(0.932)	869334	110	9200
$	77 2-Fluorobiphenyl (SUR)	172	16.241	16.241	(0.936)	1288656	45	3800
	102 Diphenyl	154	16.407	16.413	(0.945)	3455	0.11	9.0(a)
	36 2-Chloronaphthalene	162	16.443	16.442	(0.947)	1195075	49	4000
	103 Diphenyl Ether	170	16.580	16.579	(0.955)	4192	0.25	21(a)
	37 2-Nitroaniline	65	16.630	16.637	(0.958)	438570	50	4100
	38 Dimethylphthalate	163	16.926	16.932	(0.975)	1583559	50	4200
	40 2,6-Dinitrotoluene	165	17.041	17.040	(0.982)	393874	52	4300
	39 Acenaphthylene	152	17.127	17.126	(0.987)	2061536	48	4000
	41 3-Nitroaniline	138	17.322	17.321	(0.998)	410648	63	5200(R)
*	82 Acenaphthene-d10	164	17.358	17.357	(1.000)	873583	40	
	42 Acenaphthene	153	17.415	17.422	(1.003)	1274272	48	4000
	11 2,4-Dinitrophenol	184	17.516	17.515	(1.009)	66923	16	1300(a)
	12 4-Nitrophenol	65	17.646	17.645	(1.017)	421299	100	8500
	44 2,4-Dinitrotoluene	165	17.718	17.717	(1.021)	564157	52	4300
	43 Dibenzofuran	168	17.703	17.710	(1.020)	1850806	52	4300
	45 Diethylphthalate	149	18.099	18.099	(1.043)	1637307	50	4100
	46 4-Chlorophenyl-phenylether	204	18.272	18.271	(1.053)	583989	49	4100
	47 Fluorene	166	18.279	18.279	(1.053)	1555482	54	4400
	48 4-Nitroaniline	138	18.351	18.358	(1.057)	477027	52	4300
	13 4,6-Dinitro-2-methylphenol	198	18.409	18.408	(0.928)	255556	45	3700
	49 N-Nitrosodiphenylamine	169	18.481	18.480	(0.932)	1094555	54	4400
	75 1,2-Diphenylhydrazine	77	18.539	18.538	(0.935)	1478046	48	4000
$	18 2,4,6-Tribromophenol (SUR)	330	18.683	18.682	(1.076)	428144	99	8200
	50 4-Bromophenyl-phenylether	248	19.079	19.085	(0.962)	351512	48	4000
	51 Hexachlorobenzene	284	19.187	19.186	(0.968)	420046	51	4200
	14 Pentachlorophenol	266	19.525	19.524	(0.985)	416341	120	10000(A)

304215

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7589.d
Report Date: 19-Oct-98 11:13:30

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
* 83 Phenanthrene-d10	188	19.828	19.827	(1.000)	1354245	40	
52 Phenanthrene	178	19.871	19.870	(1.002)	2137078	53	4400
53 Anthracene	178	19.957	19.957	(1.007)	2165997	52	4300
54 Carbazole	167	20.231	20.230	(1.020)	2080957	49	4100
55 Di-n-butylphthalate	149	20.800	20.799	(1.049)	3052133	54	4400
56 Fluoranthene	202	21.844	21.843	(1.102)	2108864	53	4400
58 Benzidine	184	22.060	22.074	(1.113)	193540	9.4	780(a)
57 Pyrene	202	22.219	22.218	(0.917)	2193736	59	4900
$ 78 Terphenyl-d14 (SUR)	244	22.471	22.470	(0.928)	1542846	55	4500
59 Butylbenzylphthalate	149	23.277	23.276	(0.961)	1400308	59	4900
60 3,3'-Dichlorobenzidine	252	24.156	24.162	(0.997)	665209	47	3900
61 Benzo(a)anthracene	228	24.199	24.198	(0.999)	1970616	54	4400
63 bis(2-Ethylhexyl)phthalate	149	24.213	24.212	(1.000)	1801232	60	5000
* 81 Chrysene-d12	240	24.221	24.220	(1.000)	1078701	40	
62 Chrysene	228	24.264	24.263	(1.002)	2131146	60	4900
64 Di-n-octylphthalate	149	25.344	25.343	(0.934)	3455437	53	4400
65 Benzo(b)fluoranthene	252	26.208	26.207	(0.966)	2103378	49	4100
66 Benzo(k)fluoranthene	252	26.280	26.279	(0.969)	2381584	54	4500
67 Benzo(a)pyrene	252	27.000	26.999	(0.995)	2132750	54	4400
* 84 Perylene-d12	264	27.130	27.129	(1.000)	1193709	40	
68 Indeno(1,2,3-cd)pyrene	276	30.565	30.564	(1.127)	2156381	50	4200(M)
69 Dibenz(a,h)anthracene	278	30.659	30.658	(1.130)	2128608	52	4300
70 Benzo(g,h,i)perylene	276	31.660	31.651	(1.167)	2261167	54	4500

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

304216

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7589.d
Date : 16-OCT-98 22:48:00
Client ID: ALL
Sample Info: 88158MSD;30;2;1;19.5;

Instrument: BNAMS5.i

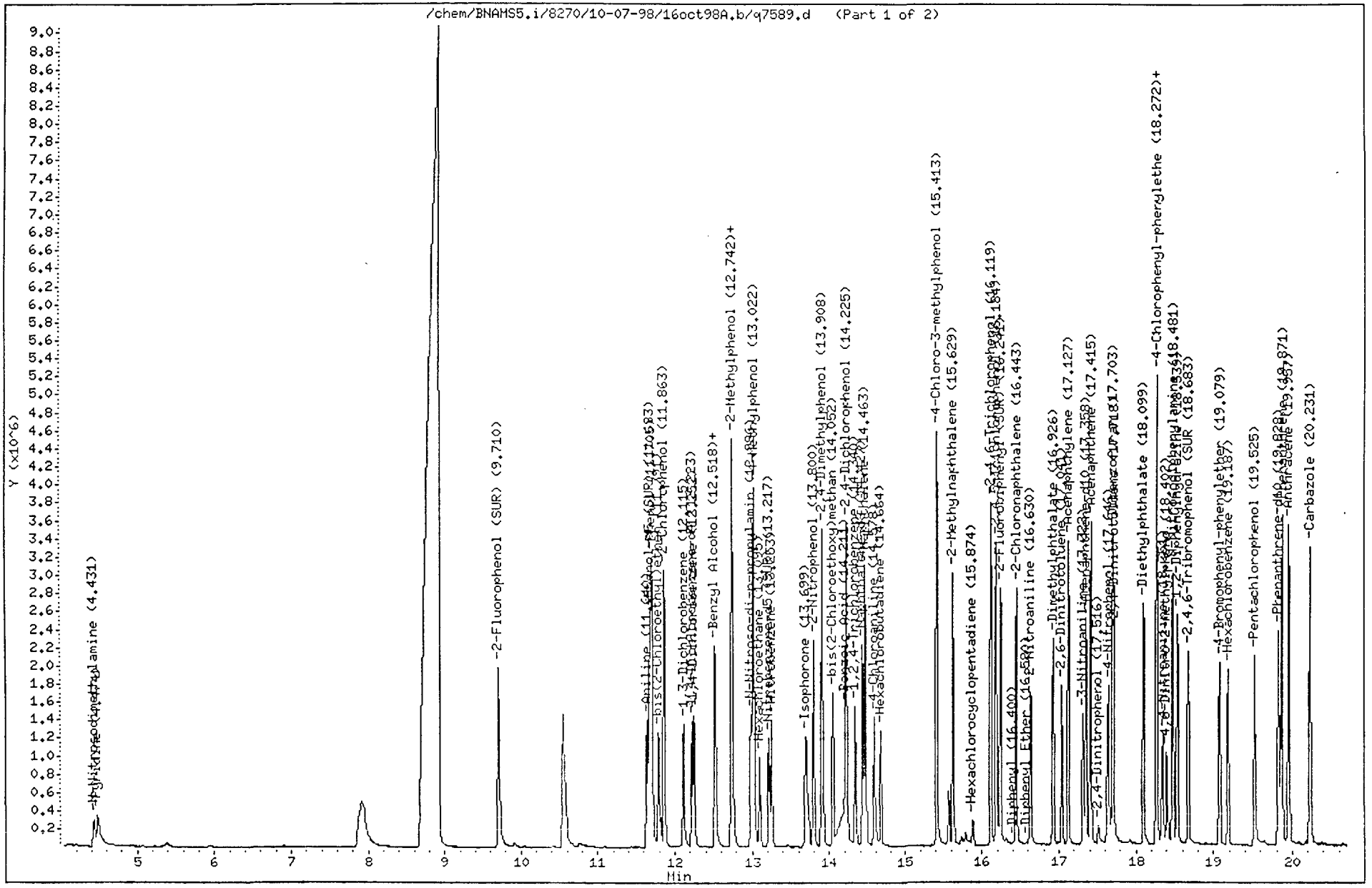
Operator: BNAMS3

304217

680

Column phase: DB-5

Column diameter: 0.25



Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7589.d
Date : 16-OCT-98 22:48:00
Client ID: ALL
Sample Info: 88158MSD;30;2;1;19.5;

Column phase: DB-5

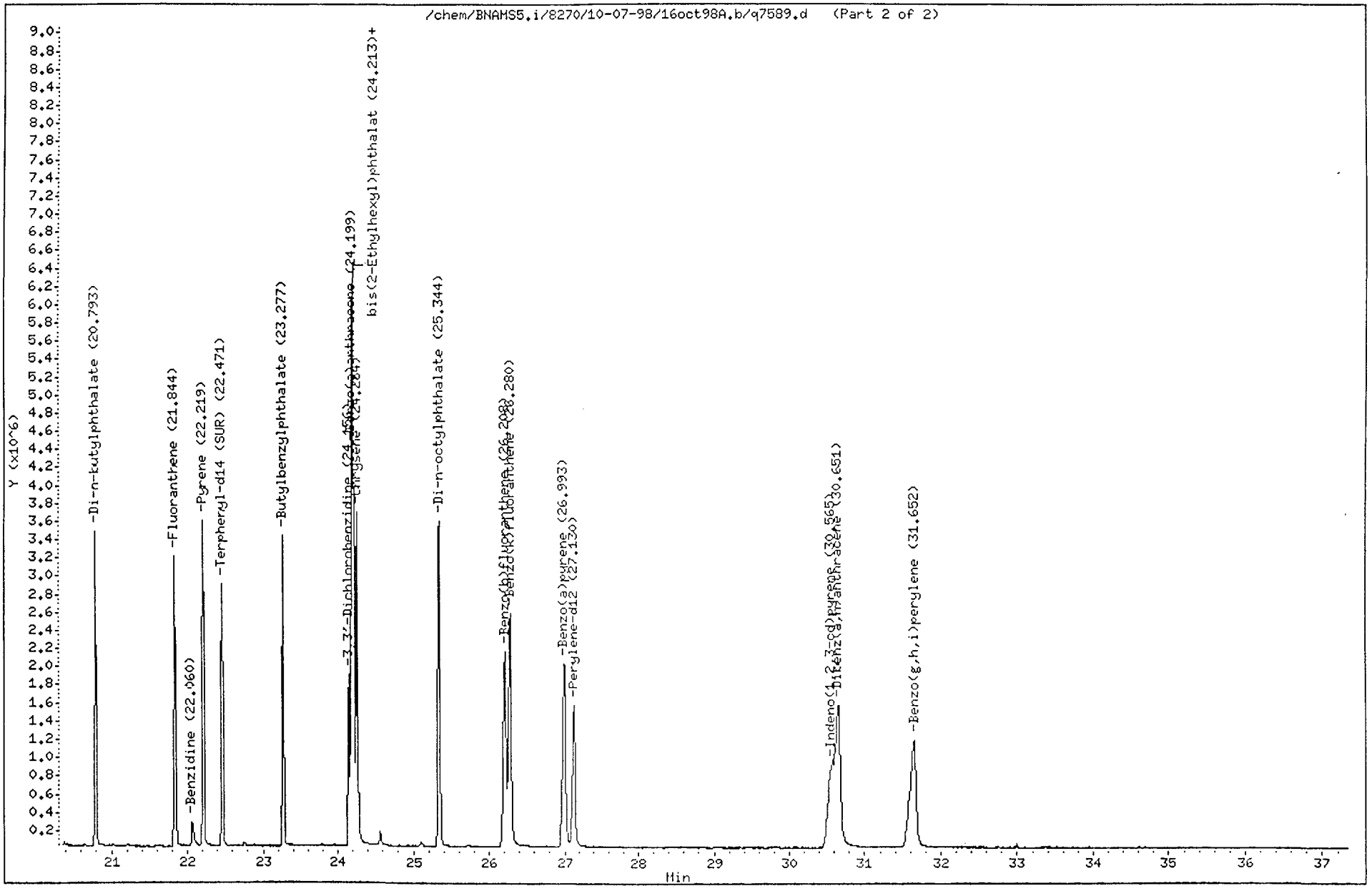
Instrument: BNAMS5.i

Operator: BNAMS3

Column diameter: 0.25

304218

681



Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7586.d
Report Date: 19-Oct-98 11:02:16

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7586.d
Lab Smp Id: 4734BS Client Smp ID: ALL
Inj Date : 16-OCT-98 20:29:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : 4734BS;30;2;1;;
Misc Info : ;ALL;4734;;
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/8270C-REV..m
Meth Date : 16-Oct-98 23:23:10 ctp Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 2 QC Sample: BS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: Uf*1000*Vt/(Ws*(100-M)/100)

Name	Value	Description
Uf	1.000	ng unit correction factor
Vt	2.000	Volume of final extract (ml)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
19 N-Nitrosodimethylamine	74	4.439	4.452	(0.363)	358492	37	2500
71 Pyridine	79	4.482	4.474	(0.367)	372829	26	1700
$ 16 2-Fluorophenol (SUR)	112	9.717	9.687	(0.795)	1334122	100	6800
$ 17 Phenol-d5 (SUR)	99	11.683	11.675	(0.956)	1743211	96	6400
1 Phenol	94	11.712	11.697	(0.958)	1816367	89	5900
73 Aniline	93	11.640	11.639	(0.952)	922244	44	2900
20 bis(2-Chloroethyl)ether	93	11.799	11.790	(0.965)	648832	41	2800
2 2-Chlorophenol	128	11.871	11.862	(0.971)	1525764	100	7000
21 1,3-Dichlorobenzene	146	12.115	12.114	(0.991)	628542	40	2700
* 79 1,4-Dichlorobenzene-d4	152	12.223	12.222	(1.000)	370301	40	
22 1,4-Dichlorobenzene	146	12.259	12.258	(1.003)	651321	41	2800
74 Benzyl Alcohol	108	12.533	12.525	(1.025)	492797	47	3200
23 1,2-Dichlorobenzene	146	12.519	12.518	(1.024)	612103	41	2700
3 2-Methylphenol	108	12.749	12.748	(1.043)	1289137	94	6200
24 bis(2-chloroisopropyl)ether	45	12.735	12.748	(1.042)	1807397	43	2900(M)

304219

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7586.d
Report Date: 19-Oct-98 11:02:16

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
4 4-Methylphenol	108	13.023	13.014	(1.065)	1544908	110	7100
25 N-Nitroso-di-n-propylamine	70	12.994	12.986	(1.063)	472608	46	3100
26 Hexachloroethane	117	13.095	13.101	(1.071)	226357	42	2800
$ 76 Nitrobenzene-d5 (SUR)	82	13.217	13.216	(0.916)	606376	42	2800
27 Nitrobenzene	77	13.253	13.259	(0.919)	620271	32	2100
28 Isophorone	82	13.707	13.670	(0.950)	1509949	48	3200(H)
5 2-Nitrophenol	139	13.801	13.792	(0.957)	941242	97	6400
6 2,4-Dimethylphenol	122	13.916	13.907	(0.965)	1327016	93	6200
15 Benzoic Acid	122	14.197	14.188	(0.984)	469434	62	4100(R)
29 bis(2-Chloroethoxy)methane	93	14.053	14.044	(0.974)	845205	48	3200
7 2,4-Dichlorophenol	162	14.225	14.224	(0.986)	1192181	99	6600
30 1,2,4-Trichlorobenzene	180	14.341	14.339	(0.994)	536665	41	2700
* 80 Naphthalene-d8	136	14.427	14.426	(1.000)	1679533	40	
31 Naphthalene	128	14.463	14.469	(1.002)	2146419	46	3000
32 4-Chloroaniline	127	14.578	14.577	(1.010)	830427	42	2800
33 Hexachlorobutadiene	225	14.665	14.671	(1.016)	226735	38	2500
8 4-Chloro-3-methylphenol	107	15.414	15.412	(1.068)	1449014	120	7700(R)
34 2-Methylnaphthalene	142	15.630	15.629	(1.083)	1376989	46	3000
35 Hexachlorocyclopentadiene	237	15.882	15.881	(0.915)	87521	36	2400
9 2,4,6-Trichlorophenol	196	16.119	16.118	(0.929)	893237	110	7300
10 2,4,5-Trichlorophenol	196	16.184	16.183	(0.932)	926345	110	7200
$ 77 2-Fluorobiphenyl (SUR)	172	16.249	16.241	(0.936)	1398557	45	3000
102 Diphenyl	154	16.407	16.413	(0.945)	3584	0.10	6.9(a)
36 2-Chloronaphthalene	162	16.443	16.442	(0.947)	1244196	46	3100(R)
103 Diphenyl Ether	170	16.580	16.579	(0.955)	4323	0.24	16(a)
37 2-Nitroaniline	65	16.638	16.637	(0.959)	468811	49	3300
38 Dimethylphthalate	163	16.926	16.932	(0.975)	1690545	50	3300
40 2,6-Dinitrotoluene	165	17.041	17.040	(0.982)	421133	51	3400
39 Acenaphthylene	152	17.128	17.126	(0.987)	2188023	47	3100
41 3-Nitroaniline	138	17.322	17.321	(0.998)	466121	66	4400(R)
* 82 Acenaphthene-d10	164	17.358	17.357	(1.000)	949516	40	
42 Acenaphthene	153	17.416	17.422	(1.003)	1345085	47	3100
11 2,4-Dinitrophenol	184	17.516	17.515	(1.009)	74139	16	1100(a)
12 4-Nitrophenol	65	17.653	17.645	(1.017)	442776	99	6600
44 2,4-Dinitrotoluene	165	17.725	17.717	(1.021)	605343	52	3400
43 Dibenzofuran	168	17.704	17.710	(1.020)	1950635	50	3300
45 Diethylphthalate	149	18.107	18.099	(1.043)	1743757	49	3300
46 4-Chlorophenyl-phenylether	204	18.273	18.271	(1.053)	608620	47	3100
47 Fluorene	166	18.280	18.279	(1.053)	1622047	52	3400
48 4-Nitroaniline	138	18.359	18.358	(1.058)	519828	52	3500
13 4,6-Dinitro-2-methylphenol	198	18.409	18.408	(0.928)	280666	47	3100
49 N-Nitrosodiphenylamine	169	18.481	18.480	(0.932)	1159017	54	3600
75 1,2-Diphenylhydrazine	77	18.539	18.538	(0.935)	1554471	48	3200
$ 18 2,4,6-Tribromophenol (SUR)	330	18.683	18.682	(1.076)	474203	100	6700
50 4-Bromophenyl-phenylether	248	19.086	19.085	(0.963)	384608	50	3300
51 Hexachlorobenzene	284	19.187	19.186	(0.968)	461058	53	3600
14 Pentachlorophenol	266	19.533	19.524	(0.985)	435450	120	8100(A)

304220

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7586.d
Report Date: 19-Oct-98 11:02:16

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/Kg)
* 83 Phenanthrene-d10	188	19.828	19.827	(1.000)	1425351	40	
52 Phenanthrene	178	19.871	19.870	(1.002)	2223915	52	3500
53 Anthracene	178	19.958	19.957	(1.007)	2286777	52	3500
54 Carbazole	167	20.231	20.230	(1.020)	2222551	50	3300
55 Di-n-butylphthalate	149	20.800	20.799	(1.049)	3230743	54	3600
56 Fluoranthene	202	21.844	21.843	(1.102)	2218726	52	3500
58 Benzidine	184	22.068	22.074	(1.113)	457399	21	1400
57 Pyrene	202	22.219	22.218	(0.917)	2274166	60	4000
$ 78 Terphenyl-d14 (SUR)	244	22.471	22.470	(0.928)	1628123	57	3800
59 Butylbenzylphthalate	149	23.278	23.276	(0.961)	1444039	60	4000
60 3,3'-Dichlorobenzidine	252	24.156	24.162	(0.997)	678820	48	3200
61 Benzo(a)anthracene	228	24.199	24.198	(0.999)	2037070	55	3700
63 bis(2-Ethylhexyl)phthalate	149	24.214	24.212	(1.000)	1798242	60	4000
* 81 Chrysene-d12	240	24.221	24.220	(1.000)	1084935	40	
62 Chrysene	228	24.264	24.263	(1.002)	2117199	59	3900
64 Di-n-octylphthalate	149	25.344	25.343	(0.934)	3517198	52	3500
65 Benzo(b)fluoranthene	252	26.208	26.207	(0.966)	2141655	48	3200
66 Benzo(k)fluoranthene	252	26.280	26.279	(0.969)	2442493	54	3600
67 Benzo(a)pyrene	252	27.001	26.999	(0.995)	2156820	52	3500
* 84 Perylene-d12	264	27.130	27.129	(1.000)	1234239	40	
68 Indeno(1,2,3-cd)pyrene	276	30.565	30.564	(1.127)	2329866	53	3500(M)
69 Dibenz(a,h)anthracene	278	30.666	30.658	(1.130)	2208645	52	3500
70 Benzo(g,h,i)perylene	276	31.660	31.651	(1.167)	2363947	55	3600

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304221

Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7586.d
Date : 16-OCT-98 20:29:00
Client ID: ALL
Sample Info: 4734BS;30;2;1;;

Column phase: DB-5

Instrument: BNAMS5.i

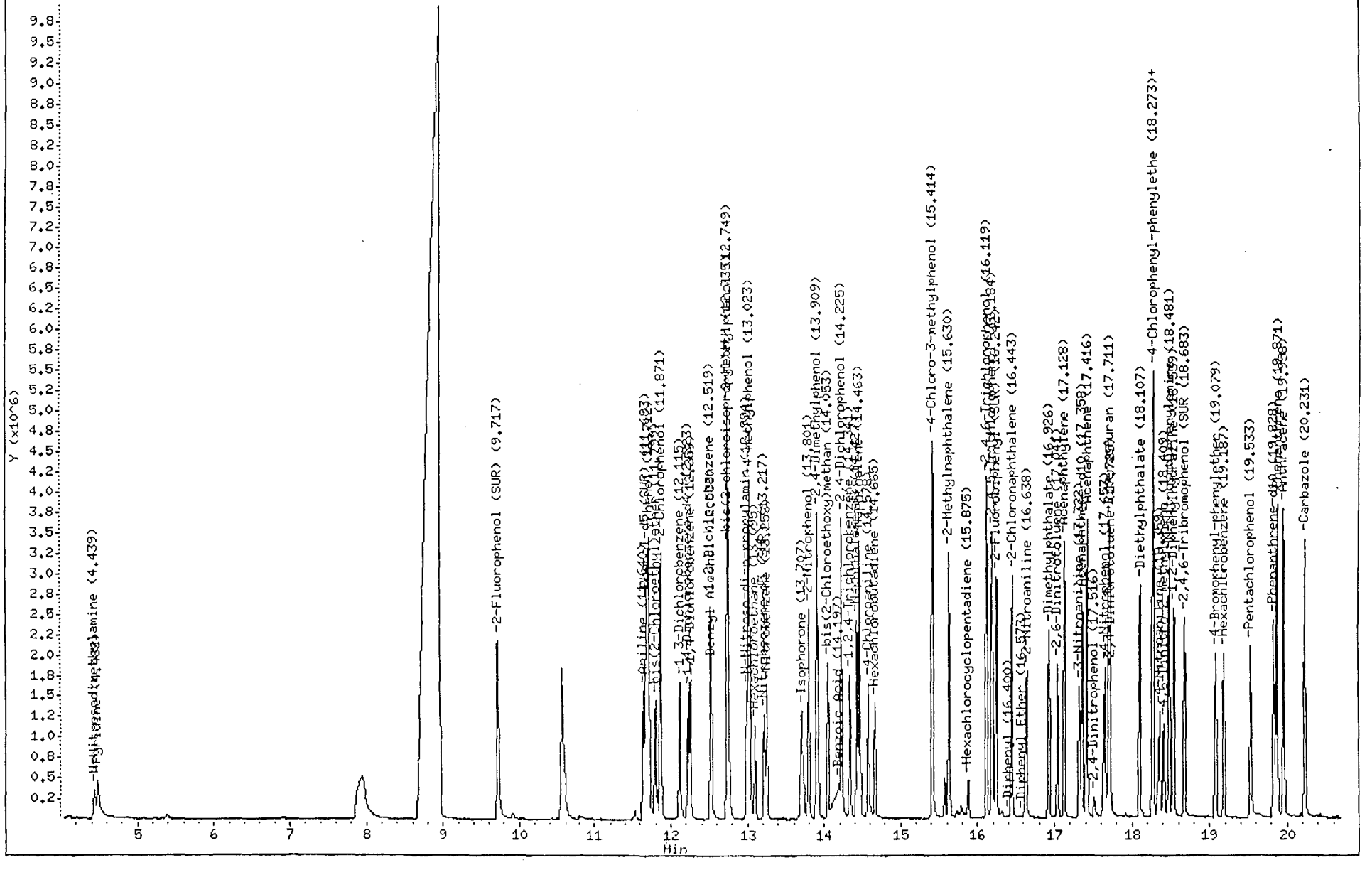
Operator: BNAMS3

Column diameter: 0.25

304222

685

/chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7586.d (Part 1 of 2)



Data File: /chem/BNAMS5.i/8270/10-07-98/16oct98A.b/q7586.d
Date : 16-OCT-98 20:29:00
Client ID: ALL
Sample Info: 4734BS;30;2;1;;

Instrument: BNAMS5.i

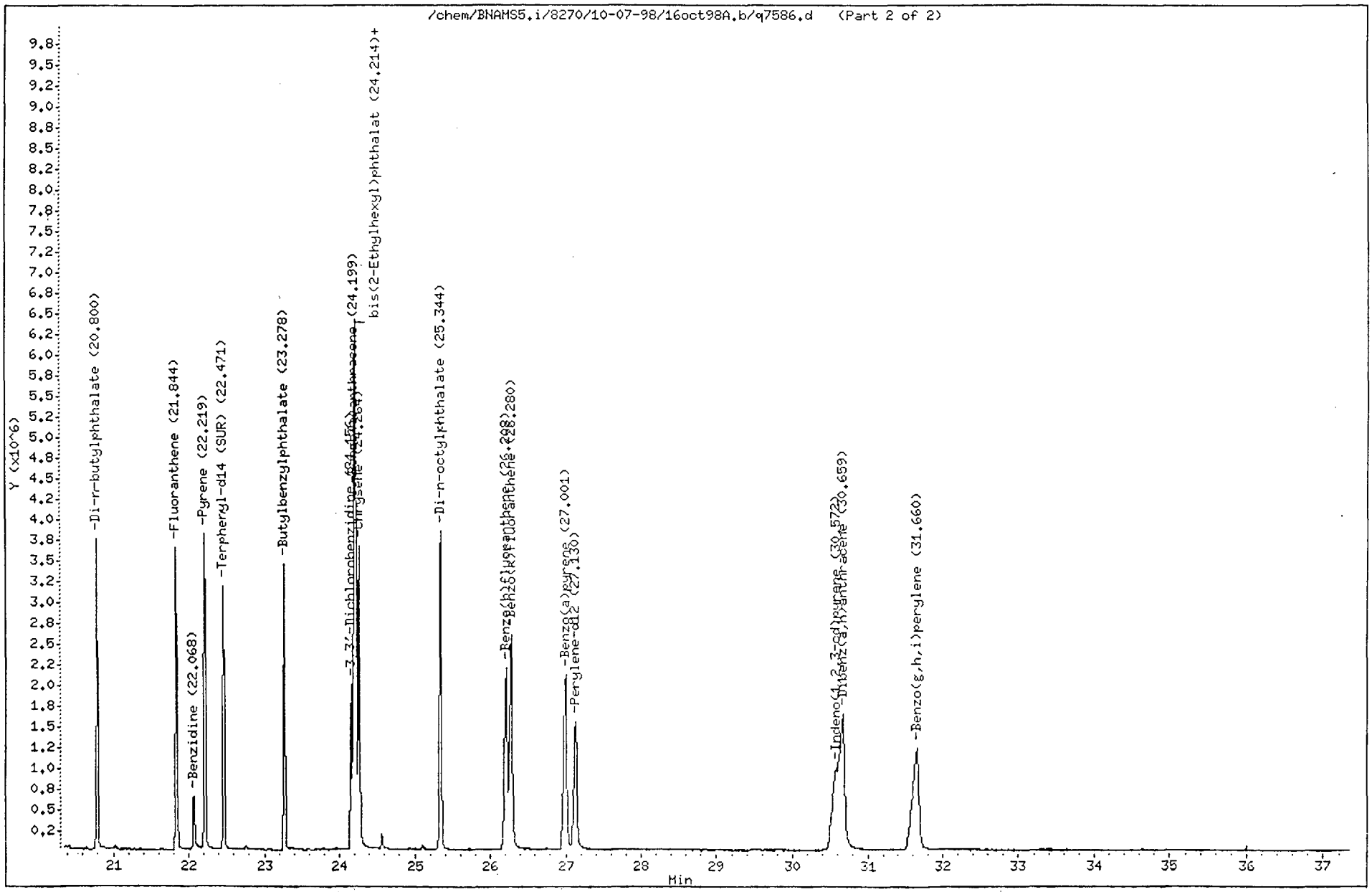
Operator: BNAMS3

304223

686

Column phase: DB-5

Column diameter: 0.25



SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
METHOD 8270B

Matrix: WATER

Level: LOW

Matrix Spike - Lab Sample No.: 89115

MS Sample from Lab Job No: I016

QA Batch: 4179

Compound	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,4-Dichlorobenzene	100	0	73	73	38-112
N-Nitroso-di-n-propylami	100	0	93	93	61-125
1,2,4-Trichlorobenzene	100	0	80	80	45-104
Acenaphthene	100	0	93	93	35-156
2,4-Dinitrotoluene	100	0	96	96	72-124
Pyrene	100	0	120	120	69-128

Compound	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,4-Dichlorobenzene	100	80	80	9	40	38-112
N-Nitroso-di-n-propylami	100	100	100	7	40	61-125
1,2,4-Trichlorobenzene	100	86	86	7	40	45-104
Acenaphthene	100	98	98	5	40	35-156
2,4-Dinitrotoluene	100	100	100	4	40	72-124
Pyrene	100	120	120	0	40	69-128

Column to be used to flag recovery and RPD values with an asterik
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS: _____

304224

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7555.d
Report Date: 16-Oct-98 13:20:07

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7555.d
Lab Smp Id: 89115 Client Smp ID: DP100998
Inj Date : 15-OCT-98 19:41:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : 89115;1000;2;1;;
Misc Info : I016;PPBNA;4179;A87
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/8270C-REV..m
Meth Date : 16-Oct-98 13:17:11 rui Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PPBNAb.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: 1000*Vt/Vo

Name	Value	Description
Vt	2.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
$ 16 2-Fluorophenol (SUR)	112	9.695	9.702	(0.792)	616446	44	89
$ 17 Phenol-d5 (SUR)	99	11.675	11.689	(0.954)	611379	31	63
* 79 1,4-Dichlorobenzene-d4	152	12.237	12.244	(1.000)	394405	40	
$ 76 Nitrobenzene-d5 (SUR)	82	13.223	13.237	(0.916)	646957	44	89
* 80 Naphthalene-d8	136	14.440	14.447	(1.000)	1691317	40	
$ 77 2-Fluorobiphenyl (SUR)	172	16.255	16.262	(0.936)	1478900	46	91
* 82 Acenaphthene-d10	164	17.371	17.378	(1.000)	997985	40	
$ 18 2,4,6-Tribromophenol (SUR)	330	18.689	18.696	(1.076)	452989	92	180
* 83 Phenanthrene-d10	188	19.841	19.848	(1.000)	1504125	40	
$ 78 Terphenyl-d14 (SUR)	244	22.484	22.484	(0.928)	1706920	58	120
* 81 Chrysene-d12	240	24.220	24.234	(1.000)	1131741	40	
* 84 Perylene-d12	264	27.144	27.150	(1.000)	1086194	40	

304225

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7555.d
Date : 15-OCT-98 19:41:00
Client ID: DP100998
Sample Info: 89115;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

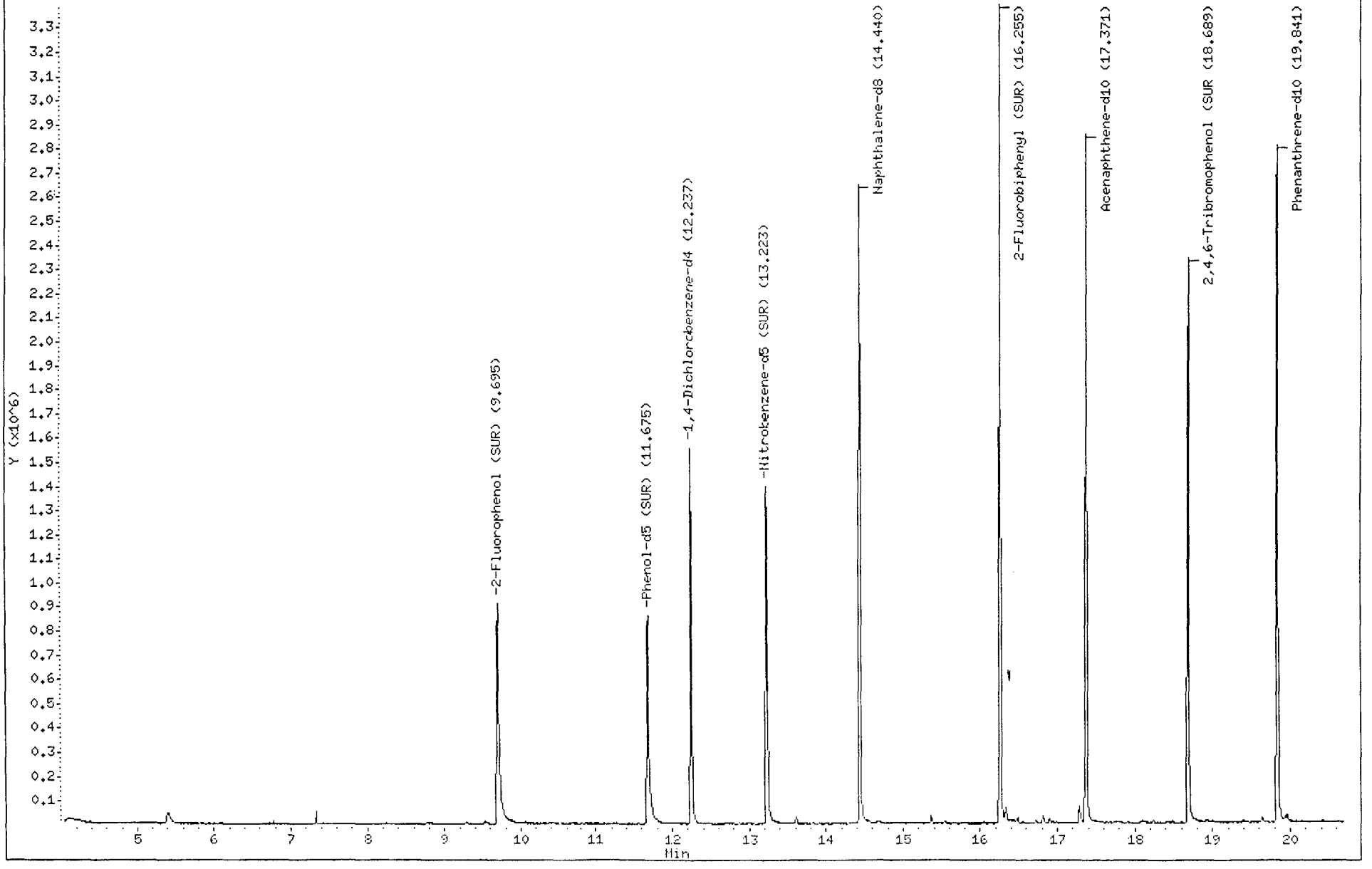
Instrument: BNAMS5.i

Operator: BNAMS3
Column diameter: 0.25

304226

689

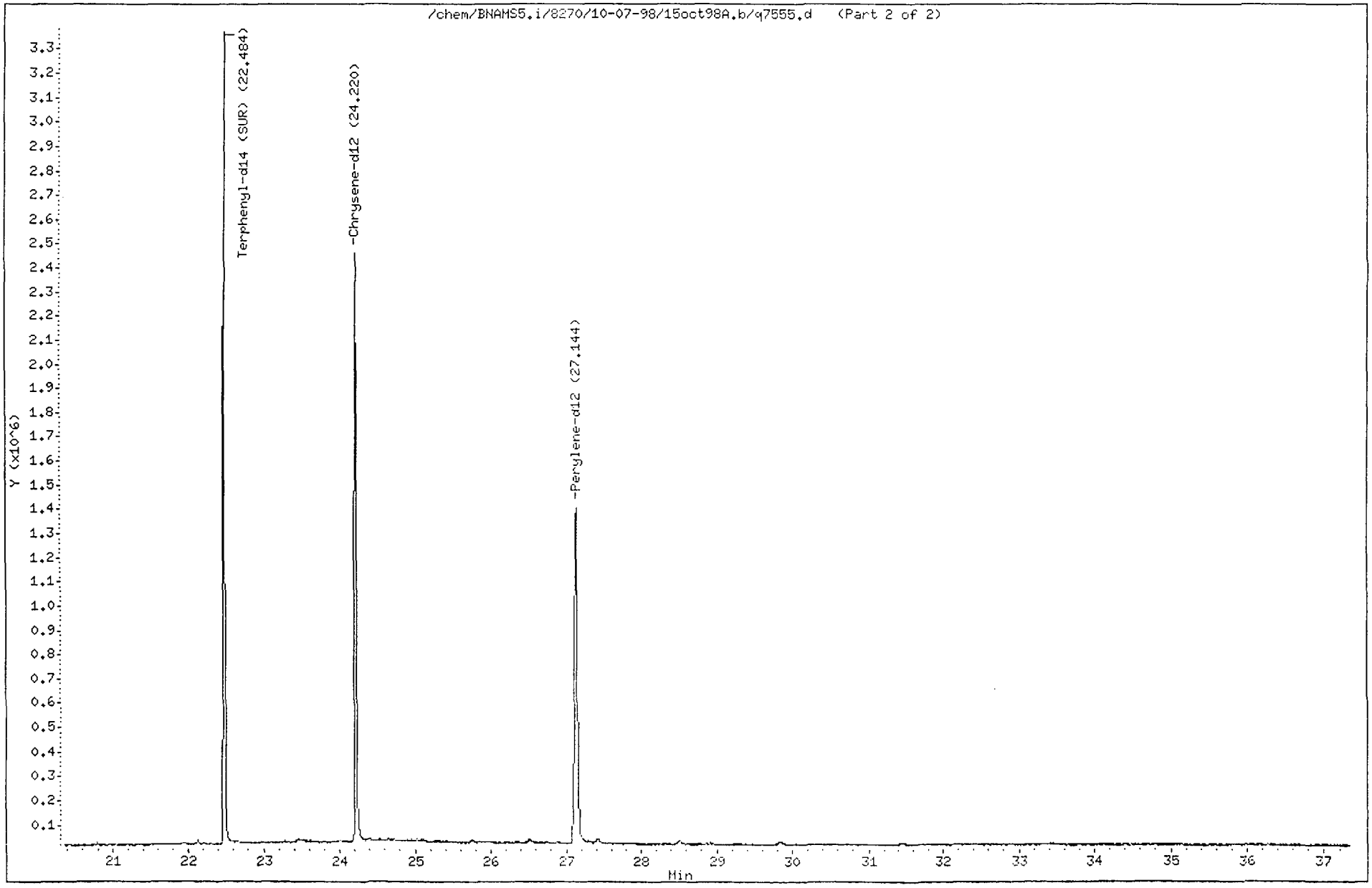
/chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7555.d (Part 1 of 2)



Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7555.d
Date : 15-OCT-98 19:41:00
Client ID: DP100998
Sample Info: 89115;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS3
Column diameter: 0.25

304227



Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7556.d
Report Date: 16-Oct-98 09:47:31

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7556.d
Lab Smp Id: 89115MS
Client Smp ID: DP100998MS
Inj Date : 15-OCT-98 20:27:00
Operator : BNAMS3
Inst ID: BNAMS5.i
Smp Info : 89115MS;1000;2;1;;
Misc Info : I016;PPBNA;4179;A87
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/8270C-REV..m
Meth Date : 15-Oct-98 19:34:15
Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00
Cal File: q7343.d
Als bottle: 3
QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE
Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: 1000*Vt/Vo

Name	Value	Description
Vt	2.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
19 N-Nitrosodimethylamine	74	4.451	4.481	(0.364)	227610	20	40
71 Pyridine	79	4.501	4.502	(0.368)	315087	18	37
$ 16 2-Fluorophenol (SUR)	112	9.693	9.702	(0.792)	653749	43	85
$ 17 Phenol-d5 (SUR)	99	11.681	11.689	(0.955)	639656	30	60
1 Phenol	94	11.703	11.711	(0.956)	738493	31	62
73 Aniline	93	11.652	11.660	(0.952)	826416	33	67(R)
20 bis(2-Chloroethyl)ether	93	11.803	11.812	(0.965)	705969	38	77
2 2-Chlorophenol	128	11.875	11.876	(0.971)	1334639	78	160
21 1,3-Dichlorobenzene	146	12.127	12.136	(0.991)	646638	36	71
* 79 1,4-Dichlorobenzene-d4	152	12.236	12.244	(1.000)	433818	40	
22 1,4-Dichlorobenzene	146	12.271	12.272	(1.003)	673003	36	73
74 Benzyl Alcohol	108	12.538	12.539	(1.025)	386982	32	64(R)
23 1,2-Dichlorobenzene	146	12.531	12.532	(1.024)	655288	37	75
3 2-Methylphenol	108	12.754	12.762	(1.042)	1065589	66	130
24 bis(2-chloroisopropyl)ether	45	12.768	12.769	(1.044)	2178321	45	89(M)
4 4-Methylphenol	108	13.028	13.036	(1.065)	1157056	68	140
25 N-Nitroso-di-n-propylamine	70	13.006	13.007	(1.063)	556115	47	93

304228

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7556.d
Report Date: 16-Oct-98 09:47:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
	26 Hexachloroethane	117	13.114	13.115	(1.072)	210266	33	66
$	76 Nitrobenzene-d5 (SUR)	82	13.236	13.237	(0.916)	709947	44	88
	27 Nitrobenzene	77	13.265	13.281	(0.918)	714034	33	65
	28 Isophorone	82	13.719	13.691	(0.950)	1744539	50	99
	5 2-Nitrophenol	139	13.820	13.814	(0.957)	1053083	96	190
	6 2,4-Dimethylphenol	122	13.921	13.922	(0.964)	1283940	80	160
	15 Benzoic Acid	122	14.129	14.217	(0.978)	123620	14	29(RH)
	29 bis(2-Chloroethoxy)methane	93	14.065	14.066	(0.974)	962424	49	98
	7 2,4-Dichlorophenol	162	14.237	14.238	(0.986)	1281426	95	190
	30 1,2,4-Trichlorobenzene	180	14.353	14.354	(0.994)	589989	40	80
*	80 Naphthalene-d8	136	14.446	14.447	(1.000)	1887048	40	
	31 Naphthalene	128	14.482	14.483	(1.002)	2416139	46	91
	32 4-Chloroaniline	127	14.590	14.599	(1.010)	946009	42	85
	33 Hexachlorobutadiene	225	14.684	14.685	(1.016)	212096	32	63
	8 4-Chloro-3-methylphenol	107	15.426	15.419	(1.068)	1340728	95	190
	34 2-Methylnaphthalene	142	15.642	15.643	(1.083)	1501504	44	88
	35 Hexachlorocyclopentadiene	237	15.894	15.895	(0.915)	101715	38	76
	9 2,4,6-Trichlorophenol	196	16.131	16.132	(0.928)	916420	100	200
	10 2,4,5-Trichlorophenol	196	16.196	16.204	(0.932)	969429	100	210
$	77 2-Fluorobiphenyl (SUR)	172	16.261	16.262	(0.936)	1646962	49	97
	36 2-Chloronaphthalene	162	16.463	16.464	(0.947)	1415286	48	96
	37 2-Nitroaniline	65	16.650	16.651	(0.958)	465196	44	89
	38 Dimethylphthalate	163	16.945	16.946	(0.975)	1795845	48	96
	40 2,6-Dinitrotoluene	165	17.060	17.061	(0.982)	446102	49	99
	39 Acenaphthylene	152	17.147	17.148	(0.987)	2428293	47	94
	41 3-Nitroaniline	138	17.341	17.335	(0.998)	463678	60	120
*	82 Acenaphthene-d10	164	17.377	17.378	(1.000)	1042388	40	
	42 Acenaphthene	153	17.435	17.436	(1.003)	1473268	46	93
	11 2,4-Dinitrophenol	184	17.536	17.537	(1.009)	486153	99	200
	12 4-Nitrophenol	65	17.658	17.659	(1.016)	143824	29	59
	44 2,4-Dinitrotoluene	165	17.737	17.738	(1.021)	618039	48	96
	43 Dibenzofuran	168	17.723	17.724	(1.020)	2073706	48	97
	45 Diethylphthalate	149	18.119	18.120	(1.043)	1789501	46	92
	46 4-Chlorophenyl-phenylether	204	18.285	18.293	(1.052)	650598	46	92
	47 Fluorene	166	18.292	18.293	(1.053)	1682501	49	98
	48 4-Nitroaniline	138	18.371	18.372	(1.057)	460736	42	84
	13 4,6-Dinitro-2-methylphenol	198	18.429	18.430	(0.929)	737185	120	240
	49 N-Nitrosodiphenylamine	169	18.501	18.502	(0.932)	1178158	53	110
	75 1,2-Diphenylhydrazine	77	18.558	18.559	(0.935)	1660967	50	99
$	18 2,4,6-Tribromophenol (SUR)	330	18.702	18.696	(1.076)	485774	94	190
	50 4-Bromophenyl-phenylether	248	19.098	19.099	(0.962)	382926	48	96
	51 Hexachlorobenzene	284	19.206	19.207	(0.968)	451114	50	100
	14 Pentachlorophenol	266	19.545	19.546	(0.985)	381462	100	200
*	83 Phenanthrene-d10	188	19.847	19.848	(1.000)	1470631	40	
	52 Phenanthrene	178	19.891	19.892	(1.002)	2225780	51	100
	53 Anthracene	178	19.977	19.978	(1.007)	2264549	50	100
	54 Carbazole	167	20.243	20.252	(1.020)	2212174	48	96

304229

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7556.d
Report Date: 16-Oct-98 09:47:31

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
55 Di-n-butylphthalate	149	20.812	20.813	(1.049)	3168030	51	100
56 Fluoranthene	202	21.856	21.857	(1.101)	2049789	47	94
58 Benzidine	184	22.087	22.081	(1.113)	26403	1.2	2.4(a)
57 Pyrene	202	22.231	22.232	(0.917)	2122083	62	120
$ 78 Terphenyl-d14 (SUR)	244	22.483	22.484	(0.928)	1582228	61	120
59 Butylbenzylphthalate	149	23.290	23.291	(0.961)	1305450	60	120
60 3,3'-Dichlorobenzidine	252	24.168	24.176	(0.997)	569247	44	88
61 Benzo(a)anthracene	228	24.211	24.212	(0.999)	1807552	54	110
63 bis(2-Ethylhexyl)phthalate	149	24.226	24.227	(1.000)	1849692	67	130(R)
* 81 Chrysene-d12	240	24.233	24.234	(1.000)	991367	40	
62 Chrysene	228	24.276	24.277	(1.002)	1922998	58	120
64 Di-n-octylphthalate	149	25.356	25.357	(0.934)	3073685	49	98
65 Benzo(b)fluoranthene	252	26.228	26.229	(0.966)	1946875	48	95
66 Benzo(k)fluoranthene	252	26.300	26.301	(0.969)	2125275	51	100
67 Benzo(a)pyrene	252	27.020	27.021	(0.995)	1963612	52	100
* 84 Perylene-d12	264	27.149	27.150	(1.000)	1143575	40	
68 Indeno(1,2,3-cd)pyrene	276	30.599	30.600	(1.127)	2472157	60	120
69 Dibenz(a,h)anthracene	278	30.693	30.694	(1.131)	2120353	54	110
70 Benzo(g,h,i)perylene	276	31.686	31.687	(1.167)	2216619	55	110

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

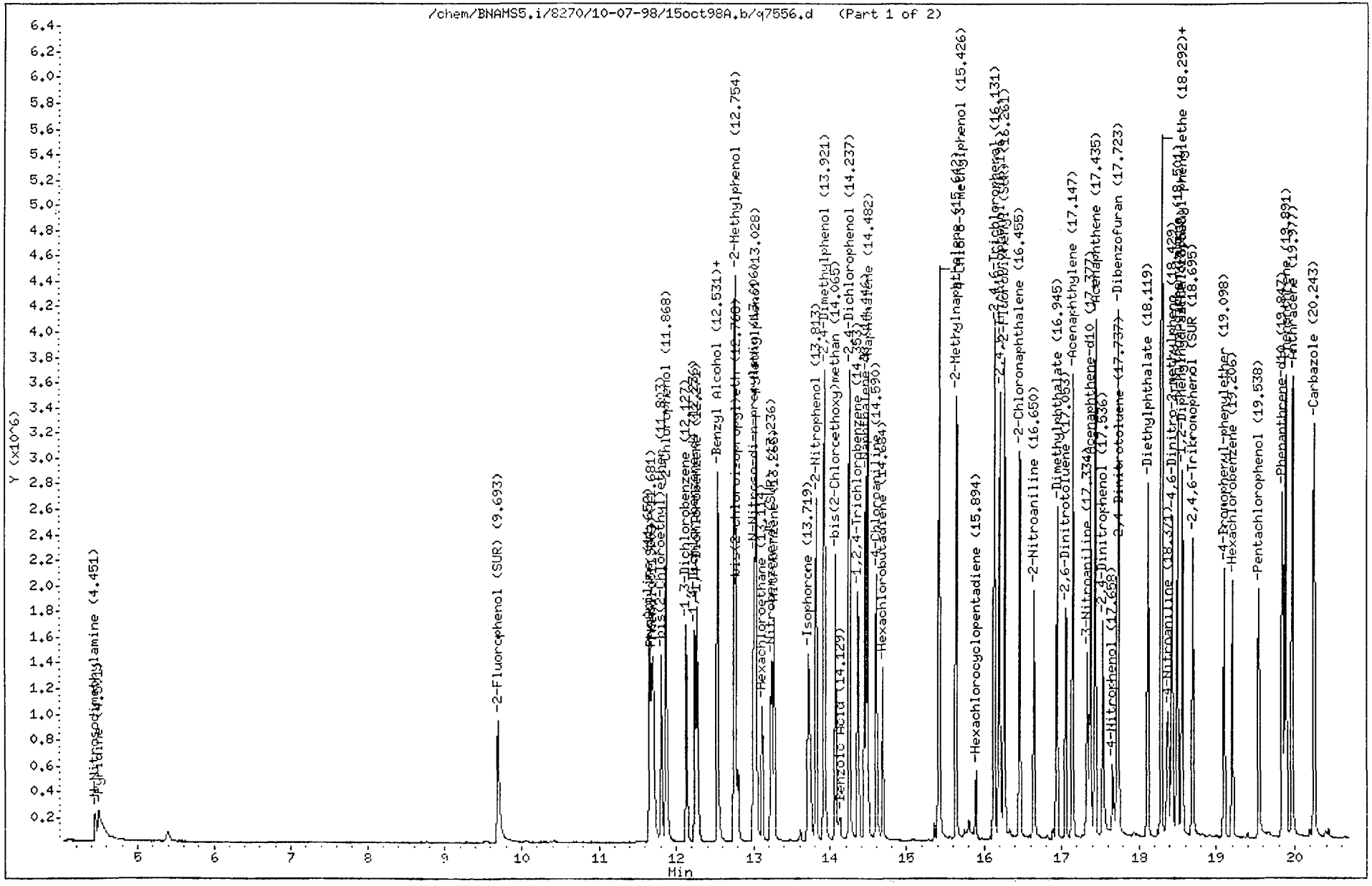
304230

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7556.d
Date : 15-OCT-98 20:27:00
Client ID: DP100998MS
Sample Info: 89115MS;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS3
Column diameter: 0.25

304231

694

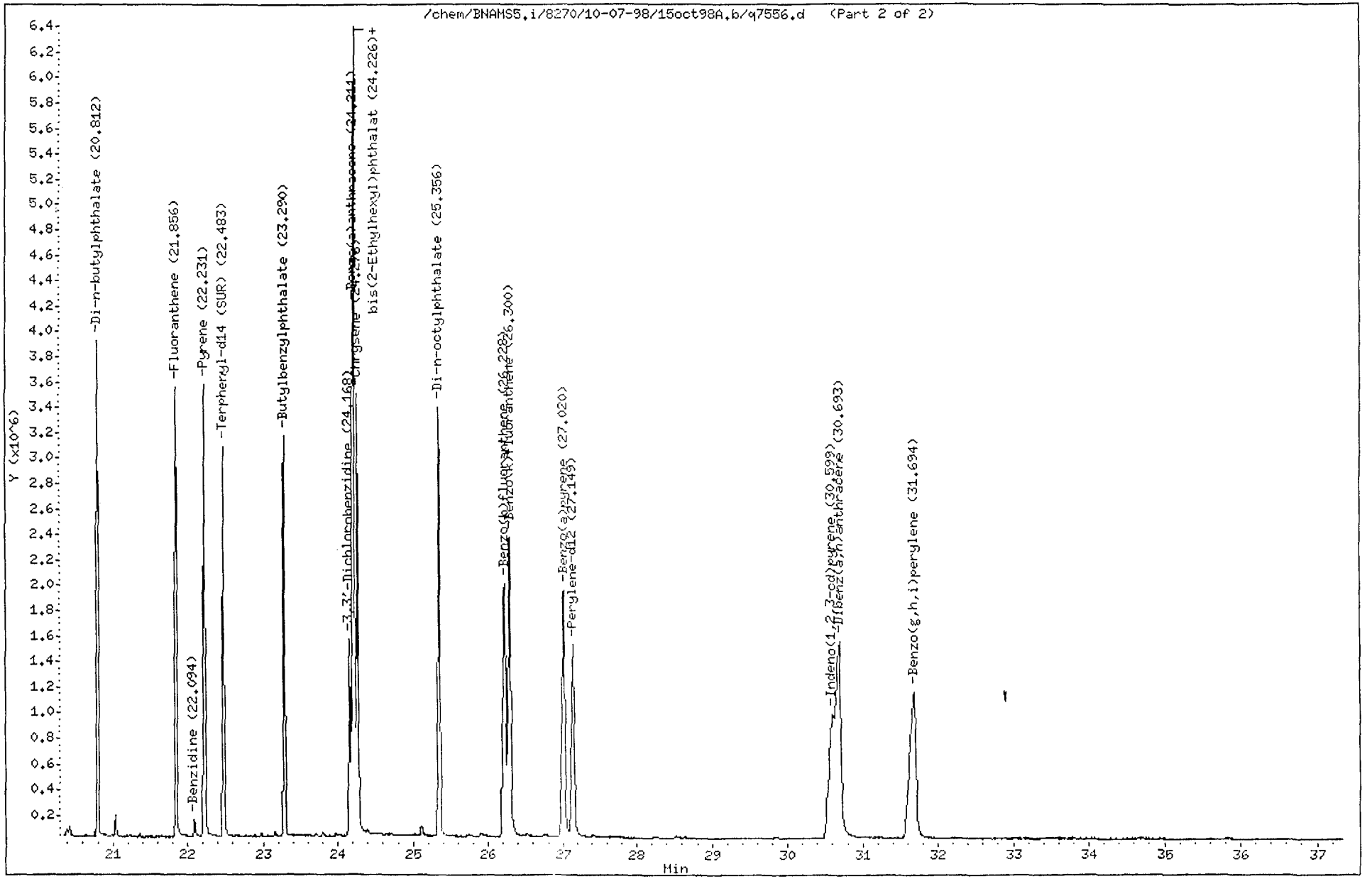


Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7556.d
Date : 15-OCT-98 20:27:00
Client ID: DP100998MS
Sample Info: 89115MS;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS3
Column diameter: 0.25

304232

695



Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7557.d
Report Date: 16-Oct-98 09:48:36

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7557.d
Lab Smp Id: 89115MSD
Client Smp ID: DP100998MSD
Inj Date : 15-OCT-98 21:13:00
Operator : BNAMS3
Inst ID: BNAMS5.i
Smp Info : 89115MSD;1000;2;1;;
Misc Info : I016;PPBNA;4179;A87
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/8270C-REV..m
Meth Date : 15-Oct-98 19:34:15
Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00
Cal File: q7343.d
Als bottle: 4
QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE
Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: 1000*Vt/Vo

Name	Value	Description
Vt	2.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
19 N-Nitrosodimethylamine	74	4.452	4.481	(0.364)	250128	24	48
71 Pyridine	79	4.502	4.502	(0.368)	298591	19	38
$ 16 2-Fluorophenol (SUR)	112	9.694	9.702	(0.792)	707923	50	99
$ 17 Phenol-d5 (SUR)	99	11.675	11.689	(0.954)	695210	35	70
1 Phenol	94	11.704	11.711	(0.956)	789627	35	71
73 Aniline	93	11.653	11.660	(0.952)	889166	38	77
20 bis(2-Chloroethyl)ether	93	11.804	11.812	(0.965)	738913	43	86
2 2-Chlorophenol	128	11.869	11.876	(0.970)	1373513	86	170
21 1,3-Dichlorobenzene	146	12.129	12.136	(0.991)	652756	39	77
* 79 1,4-Dichlorobenzene-d4	152	12.237	12.244	(1.000)	403528	40	
22 1,4-Dichlorobenzene	146	12.265	12.272	(1.002)	684129	40	80
74 Benzyl Alcohol	108	12.532	12.539	(1.024)	396502	35	70
23 1,2-Dichlorobenzene	146	12.532	12.532	(1.024)	659580	40	81
3 2-Methylphenol	108	12.748	12.762	(1.042)	1103499	74	150
24 bis(2-chloroisopropyl)ether	45	12.762	12.769	(1.043)	2259313	50	100(M)
4 4-Methylphenol	108	13.029	13.036	(1.065)	1196924	75	150
25 N-Nitroso-di-n-propylamine	70	13.007	13.007	(1.063)	565787	51	100

304233

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7557.d
Report Date: 16-Oct-98 09:48:36

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
	26 Hexachloroethane	117	13.108	13.115	(1.071)	208167	35	70
$	76 Nitrobenzene-d5 (SUR)	82	13.230	13.237	(0.916)	736195	48	96
	27 Nitrobenzene	77	13.266	13.281	(0.919)	732620	35	71
	28 Isophorone	82	13.713	13.691	(0.950)	1784516	54	110
	5 2-Nitrophenol	139	13.814	13.814	(0.957)	1078599	100	210
	6 2,4-Dimethylphenol	122	13.922	13.922	(0.964)	1328148	87	170
	15 Benzoic Acid	122	14.087	14.217	(0.976)	20274	2.5	5.0(aRH)
	29 bis(2-Chloroethoxy)methane	93	14.066	14.066	(0.974)	971713	52	100
	7 2,4-Dichlorophenol	162	14.239	14.238	(0.986)	1299586	100	200
	30 1,2,4-Trichlorobenzene	180	14.354	14.354	(0.994)	602958	43	86
*	80 Naphthalene-d8	136	14.440	14.447	(1.000)	1794261	40	
	31 Naphthalene	128	14.483	14.483	(1.003)	2464054	49	98
	32 4-Chloroaniline	127	14.591	14.599	(1.010)	966907	45	91
	33 Hexachlorobutadiene	225	14.685	14.685	(1.017)	210519	33	66
	8 4-Chloro-3-methylphenol	107	15.427	15.419	(1.068)	1340162	100	200(R)
	34 2-Methylnaphthalene	142	15.643	15.643	(1.083)	1524612	47	94
	35 Hexachlorocyclopentadiene	237	15.895	15.895	(0.915)	100459	39	79
	9 2,4,6-Trichlorophenol	196	16.132	16.132	(0.928)	919909	110	220
	10 2,4,5-Trichlorophenol	196	16.197	16.204	(0.932)	968726	110	220
$	77 2-Fluorobiphenyl (SUR)	172	16.262	16.262	(0.936)	1663119	51	100
	36 2-Chloronaphthalene	162	16.457	16.464	(0.947)	1392394	50	99
	37 2-Nitroaniline	65	16.644	16.651	(0.958)	460892	46	92
	38 Dimethylphthalate	163	16.946	16.946	(0.975)	1802952	50	100
	40 2,6-Dinitrotoluene	165	17.054	17.061	(0.981)	454240	52	100
	39 Acenaphthylene	152	17.141	17.148	(0.986)	2401913	49	98
	41 3-Nitroaniline	138	17.335	17.335	(0.998)	458392	62	120
*	82 Acenaphthene-d10	164	17.378	17.378	(1.000)	998537	40	
	42 Acenaphthene	153	17.436	17.436	(1.003)	1486082	49	98
	11 2,4-Dinitrophenol	184	17.537	17.537	(1.009)	486456	100	210
	12 4-Nitrophenol	65	17.652	17.659	(1.016)	149897	32	64
	44 2,4-Dinitrotoluene	165	17.731	17.738	(1.020)	635791	52	100
	43 Dibenzofuran	168	17.724	17.724	(1.020)	2102251	51	100
	45 Diethylphthalate	149	18.113	18.120	(1.042)	1803811	48	96
	46 4-Chlorophenyl-phenylether	204	18.286	18.293	(1.052)	661394	49	97
	47 Fluorene	166	18.293	18.293	(1.053)	1716727	52	100
	48 4-Nitroaniline	138	18.372	18.372	(1.057)	467932	44	89
	13 4,6-Dinitro-2-methylphenol	198	18.430	18.430	(0.929)	756332	130	250(A)
	49 N-Nitrosodiphenylamine	169	18.502	18.502	(0.932)	1200097	56	110
	75 1,2-Diphenylhydrazine	77	18.559	18.559	(0.935)	1709971	53	110
$	18 2,4,6-Tribromophenol (SUR)	330	18.696	18.696	(1.076)	476700	97	190
	50 4-Bromophenyl-phenylether	248	19.099	19.099	(0.963)	391073	51	100
	51 Hexachlorobenzene	284	19.200	19.207	(0.968)	459663	53	110
	14 Pentachlorophenol	266	19.539	19.546	(0.985)	386195	110	220
*	83 Phenanthrene-d10	188	19.841	19.848	(1.000)	1420249	40	
	52 Phenanthrene	178	19.884	19.892	(1.002)	2225876	53	100
	53 Anthracene	178	19.971	19.978	(1.007)	2241143	51	100
	54 Carbazole	167	20.244	20.252	(1.020)	2240911	50	100

304234

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7557.d
Report Date: 16-Oct-98 09:48:36

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
55 Di-n-butylphthalate	149	20.813	20.813	(1.049)	3192890	54	110
56 Fluoranthene	202	21.858	21.857	(1.102)	2131565	51	100
58 Benzidine	184	22.081	22.081	(1.113)	53345	2.5	4.9(a)
57 Pyrene	202	22.232	22.232	(0.917)	2143552	62	120
$ 78 Terphenyl-d14 (SUR)	244	22.484	22.484	(0.928)	1596171	61	120
59 Butylbenzylphthalate	149	23.291	23.291	(0.961)	1330833	60	120
60 3,3'-Dichlorobenzidine	252	24.162	24.176	(0.997)	586126	45	90
61 Benzo(a)anthracene	228	24.212	24.212	(0.999)	1868764	55	110
63 bis(2-Ethylhexyl)phthalate	149	24.227	24.227	(1.000)	1702682	61	120
* 81 Chrysene-d12	240	24.234	24.234	(1.000)	1001318	40	
62 Chrysene	228	24.277	24.277	(1.002)	1943753	58	120
64 Di-n-octylphthalate	149	25.357	25.357	(0.934)	3141879	52	100
65 Benzo(b)fluoranthene	252	26.229	26.229	(0.966)	2025495	51	100
66 Benzo(k)fluoranthene	252	26.294	26.301	(0.968)	2153590	53	100
67 Benzo(a)pyrene	252	27.014	27.021	(0.995)	1956500	53	100
* 84 Perylene-d12	264	27.151	27.150	(1.000)	1113925	40	
68 Indeno(1,2,3-cd)pyrene	276	30.600	30.600	(1.127)	2480147	62	120
69 Dibenz(a,h)anthracene	278	30.694	30.694	(1.130)	2051933	54	110
70 Benzo(g,h,i)perylene	276	31.687	31.687	(1.167)	2239625	58	120

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

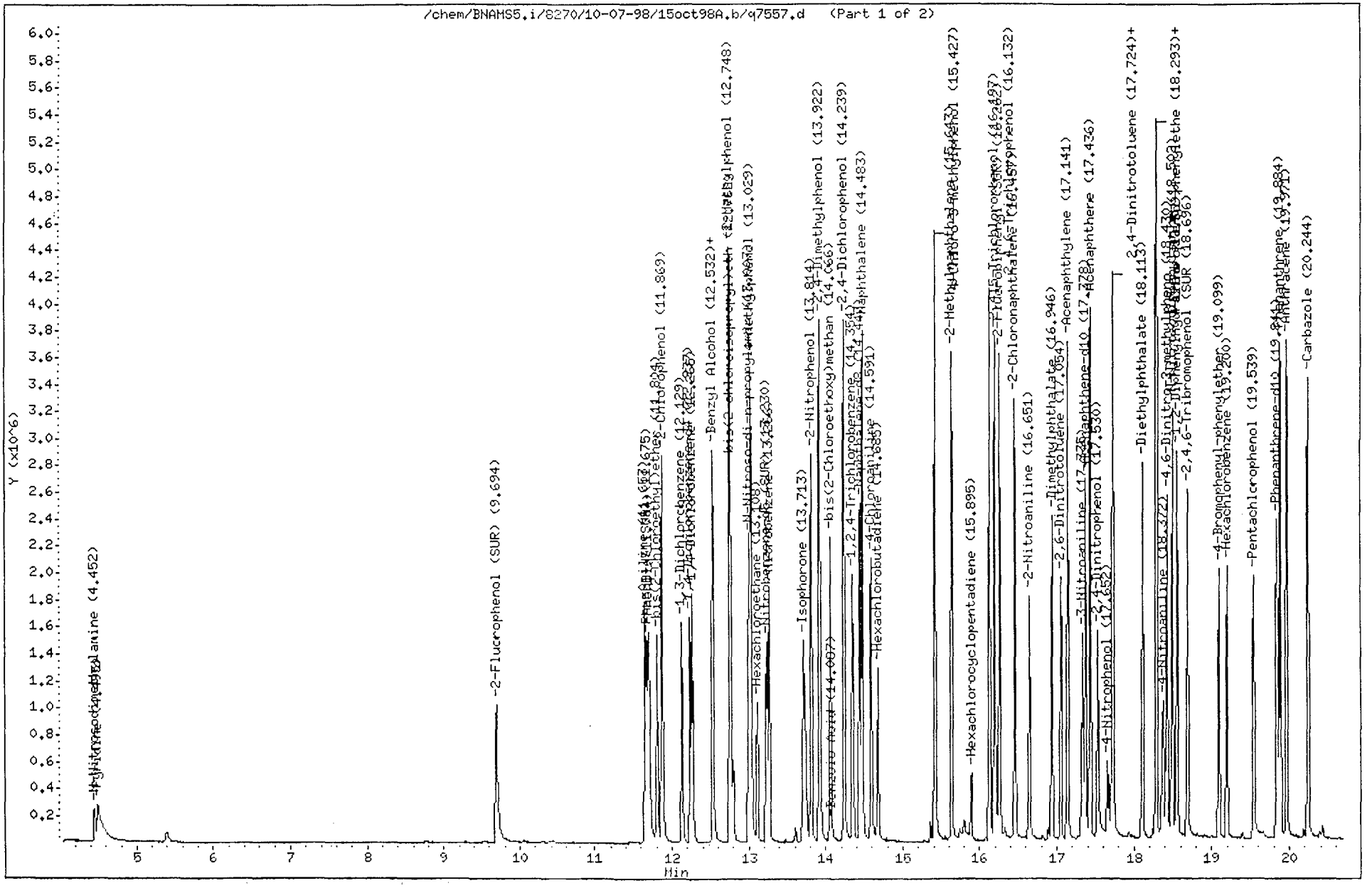
304235

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7557.d
Date : 15-OCT-98 21:13:00
Client ID: DP100998MSD
Sample Info: 89115MSD;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS3
Column diameter: 0.25

304236

699

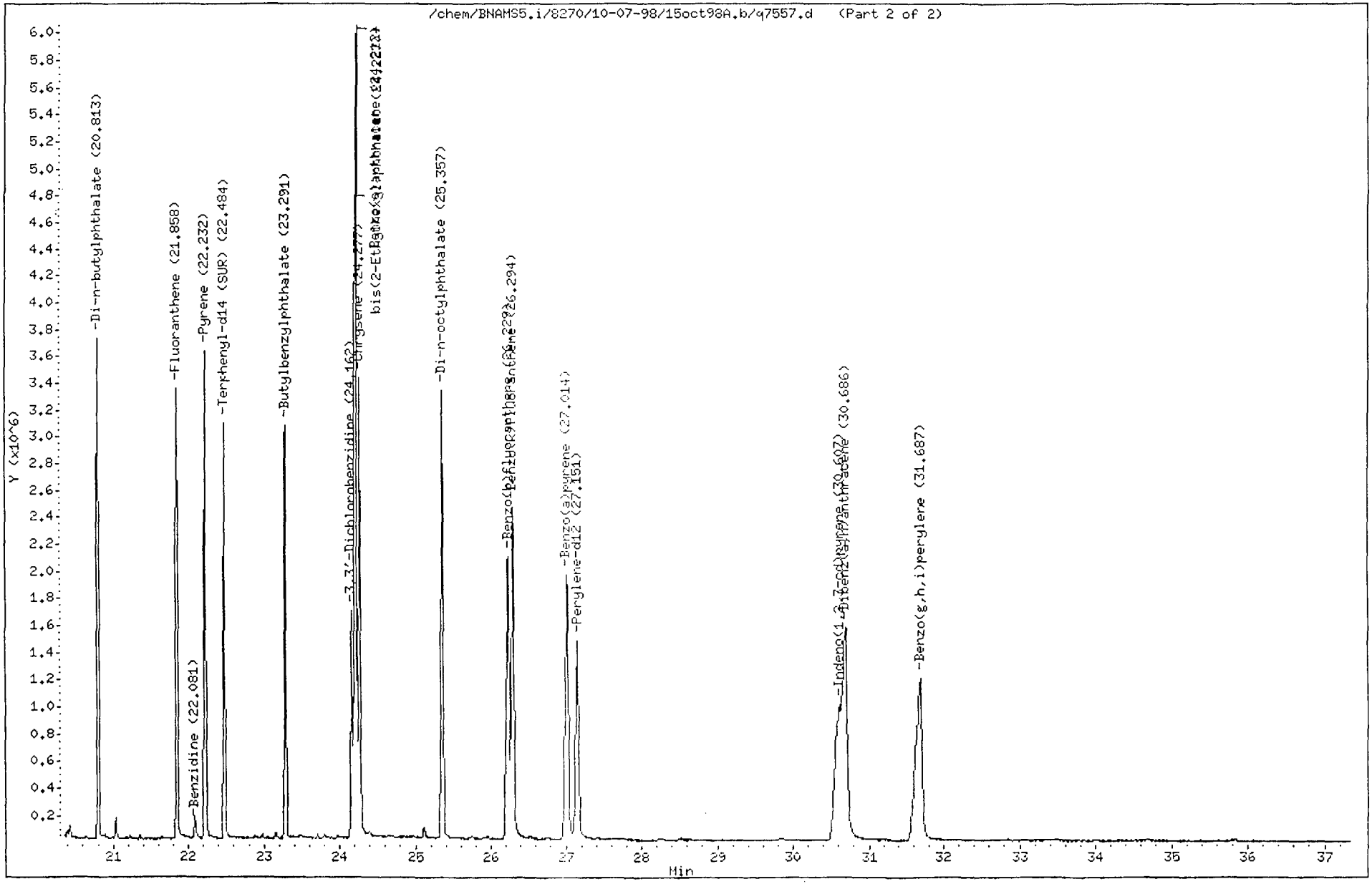


Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98A.b/q7557.d
Date : 15-OCT-98 21:13:00
Client ID: DP100998MSD
Sample Info: 89115MSD;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS3
Column diameter: 0.25

304237

700



Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7544.d
Report Date: 15-Oct-98 16:23:30

Envirotech Research Inc.

SEMI-VOLATILE ORGANIC COMPOUND ANALYSIS

Data file : /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7544.d
Lab Smp Id: 4179BS Client Smp ID: BNA
Inj Date : 15-OCT-98 11:03:00
Operator : BNAMS3 Inst ID: BNAMS5.i
Smp Info : 4179BS;1000;2;1;;
Misc Info : ;BNA;;
Comment :
Method : /chem/BNAMS5.i/8270/10-07-98/15oct98.b/8270C-REV..m
Meth Date : 15-Oct-98 09:22:02 Quant Type: ISTD
Cal Date : 07-OCT-98 17:28:00 Cal File: q7343.d
Als bottle: 4 QC Sample: BS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.20
Procesing Host: hp735

Concentration Formula: 1000*Vt/Vo

Name	Value	Description
Vt	2.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
19 N-Nitrosodimethylamine	74	4.475	4.492	(0.365)	203810	24	47
71 Pyridine	79	4.525	4.513	(0.369)	288798	22	44
$ 16 2-Fluorophenol (SUR)	112	9.717	9.720	(0.793)	605113	51	100
$ 17 Phenol-d5 (SUR)	99	11.690	11.700	(0.954)	601622	36	73
1 Phenol	94	11.712	11.722	(0.956)	634658	34	68
73 Aniline	93	11.669	11.671	(0.952)	759232	40	79
20 bis(2-Chloroethyl)ether	93	11.820	11.823	(0.965)	601379	42	85
2 2-Chlorophenol	128	11.885	11.888	(0.970)	1134345	86	170
21 1,3-Dichlorobenzene	146	12.144	12.147	(0.991)	514923	37	73
* 79 1,4-Dichlorobenzene-d4	152	12.252	12.255	(1.000)	335087	40	
22 1,4-Dichlorobenzene	146	12.281	12.284	(1.002)	540219	38	76
74 Benzyl Alcohol	108	12.547	12.550	(1.024)	334134	36	71
23 1,2-Dichlorobenzene	146	12.547	12.543	(1.024)	529804	39	78
3 2-Methylphenol	108	12.763	12.773	(1.042)	942439	76	150
24 bis(2-chloroisopropyl)ether	45	12.778	12.773	(1.043)	1857510	49	98(M)
4 4-Methylphenol	108	13.037	13.040	(1.064)	1006416	76	150
25 N-Nitroso-di-n-propylamine	70	13.015	13.011	(1.062)	480970	52	100

304238

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7544.d
Report Date: 15-Oct-98 16:23:30

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
26 Hexachloroethane	117	13.123	13.126	(1.071)	162558	33	66
$ 76 Nitrobenzene-d5 (SUR)	82	13.246	13.249	(0.916)	589370	45	90
27 Nitrobenzene	77	13.282	13.285	(0.919)	597822	34	68
28 Isophorone	82	13.721	13.702	(0.949)	1525305	54	110
5 2-Nitrophenol	139	13.829	13.825	(0.957)	897707	100	200
6 2,4-Dimethylphenol	122	13.937	13.933	(0.964)	1142945	89	180
15 Benzoic Acid	122	14.261	14.206	(0.975)	10461	1.5	3.0(aRMH)
29 bis(2-Chloroethoxy)methane	93	14.074	14.070	(0.974)	837949	53	110
7 2,4-Dichlorophenol	162	14.254	14.250	(0.986)	1080163	100	200
30 1,2,4-Trichlorobenzene	180	14.369	14.365	(0.994)	472940	40	80
* 80 Naphthalene-d8	136	14.456	14.458	(1.000)	1516152	40	
31 Naphthalene	128	14.492	14.494	(1.002)	2033300	48	96
32 4-Chloroaniline	127	14.607	14.602	(1.010)	861056	48	96
33 Hexachlorobutadiene	225	14.693	14.696	(1.016)	153840	29	57
8 4-Chloro-3-methylphenol	107	15.435	15.438	(1.068)	1167988	100	210(R)
34 2-Methylnaphthalene	142	15.658	15.661	(1.083)	1283184	47	94
35 Hexachlorocyclopentadiene	237	15.910	15.906	(0.915)	73547	33	66
9 2,4,6-Trichlorophenol	196	16.148	16.144	(0.929)	785919	100	210
10 2,4,5-Trichlorophenol	196	16.213	16.216	(0.932)	830302	100	210
$ 77 2-Fluorobiphenyl (SUR)	172	16.270	16.273	(0.936)	1321723	46	93
102 Diphenyl	154	16.436	16.439	(0.945)	3710	0.12	0.23(a)
36 2-Chloronaphthalene	162	16.472	16.475	(0.947)	1206824	49	98
103 Diphenyl Ether	170	16.609	16.612	(0.955)	4797	0.29	0.57(a)
37 2-Nitroaniline	65	16.659	16.662	(0.958)	433736	49	98
38 Dimethylphthalate	163	16.954	16.957	(0.975)	1599485	51	100
40 2,6-Dinitrotoluene	165	17.070	17.065	(0.982)	396670	52	100
39 Acenaphthylene	152	17.156	17.159	(0.987)	2086682	48	97
41 3-Nitroaniline	138	17.351	17.346	(0.998)	441888	68	140(R)
* 82 Acenaphthene-d10	164	17.387	17.389	(1.000)	875985	40	
42 Acenaphthene	153	17.444	17.447	(1.003)	1282962	48	96
11 2,4-Dinitrophenol	184	17.545	17.541	(1.009)	304261	74	150
12 4-Nitrophenol	65	17.667	17.670	(1.016)	136012	33	66
44 2,4-Dinitrotoluene	165	17.747	17.742	(1.021)	569187	52	100
43 Dibenzofuran	168	17.732	17.735	(1.020)	1835069	51	100
45 Diethylphthalate	149	18.128	18.131	(1.043)	1636898	50	100
46 4-Chlorophenyl-phenylether	204	18.301	18.304	(1.053)	578085	48	97
47 Fluorene	166	18.308	18.304	(1.053)	1509574	52	100
48 4-Nitroaniline	138	18.388	18.383	(1.058)	468339	51	100
13 4,6-Dinitro-2-methylphenol	198	18.445	18.434	(0.929)	668158	120	240
49 N-Nitrosodiphenylamine	169	18.510	18.506	(0.932)	1079515	54	110
75 1,2-Diphenylhydrazine	77	18.568	18.570	(0.935)	1519047	50	100
$ 18 2,4,6-Tribromophenol (SUR)	330	18.712	18.707	(1.076)	456541	100	210
50 4-Bromophenyl-phenylether	248	19.108	19.110	(0.962)	339474	47	94
51 Hexachlorobenzene	284	19.216	19.218	(0.968)	409301	51	100
14 Pentachlorophenol	266	19.554	19.557	(0.985)	330941	98	200
* 83 Phenanthrene-d10	188	19.857	19.859	(1.000)	1332052	40	
52 Phenanthrene	178	19.900	19.903	(1.002)	2074181	52	100

304239

Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7544.d
Report Date: 15-Oct-98 16:23:30

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/L)
	53 Anthracene	178	19.986	19.989	(1.007)	2148427	52	100
	54 Carbazole	167	20.260	20.263	(1.020)	2144996	52	100
	55 Di-n-butylphthalate	149	20.822	20.824	(1.049)	3035729	54	110
	56 Fluoranthene	202	21.873	21.869	(1.102)	2069236	52	100
	58 Benzidine	184	22.089	22.099	(1.112)	651784	32	64
	57 Pyrene	202	22.247	22.250	(0.917)	2094770	57	110
$	78 Terphenyl-d14 (SUR)	244	22.492	22.495	(0.928)	1557022	56	110
	59 Butylbenzylphthalate	149	23.299	23.302	(0.961)	1360047	58	120
	60 3,3'-Dichlorobenzidine	252	24.177	24.187	(0.997)	702521	51	100
	61 Benzo(a)anthracene	228	24.221	24.223	(0.999)	1926175	53	110
	63 bis(2-Ethylhexyl)phthalate	149	24.235	24.238	(0.999)	1730548	58	120
*	81 Chrysene-d12	240	24.249	24.252	(1.000)	1064571	40	
	62 Chrysene	228	24.293	24.295	(1.002)	2013239	57	110
	64 Di-n-octylphthalate	149	25.373	25.376	(0.933)	3303982	52	100
	65 Benzo(b)fluoranthene	252	26.251	26.254	(0.966)	2045611	49	98
	66 Benzo(k)fluoranthene	252	26.316	26.319	(0.968)	2207781	52	100
	67 Benzo(a)pyrene	252	27.044	27.046	(0.995)	1998588	52	100
*	84 Perylene-d12	264	27.180	27.183	(1.000)	1161273	40	
	68 Indeno(1,2,3-cd)pyrene	276	30.651	30.647	(1.128)	2108551	51	100(M)
	69 Dibenz(a,h)anthracene	278	30.738	30.741	(1.131)	2125422	53	110
	70 Benzo(g,h,i)perylene	276	31.746	31.742	(1.168)	2200895	54	110

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

304240

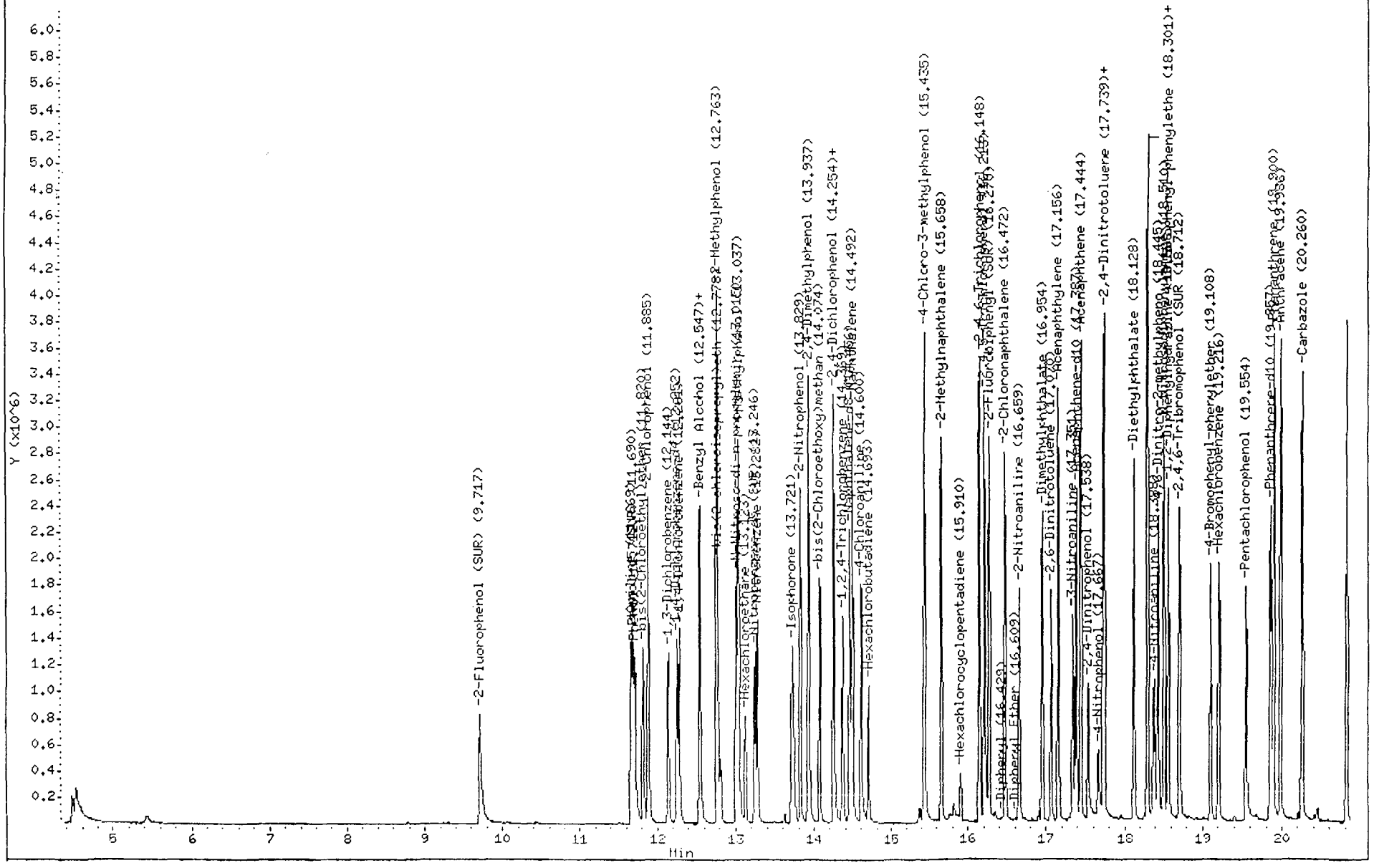
Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7544.d
Date : 15-OCT-98 11:03:00
Client ID: BNA
Sample Info: 4179BS;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS3
Column diameter: 0.25

304241

704

/chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7544.d (Part 1 of 2)

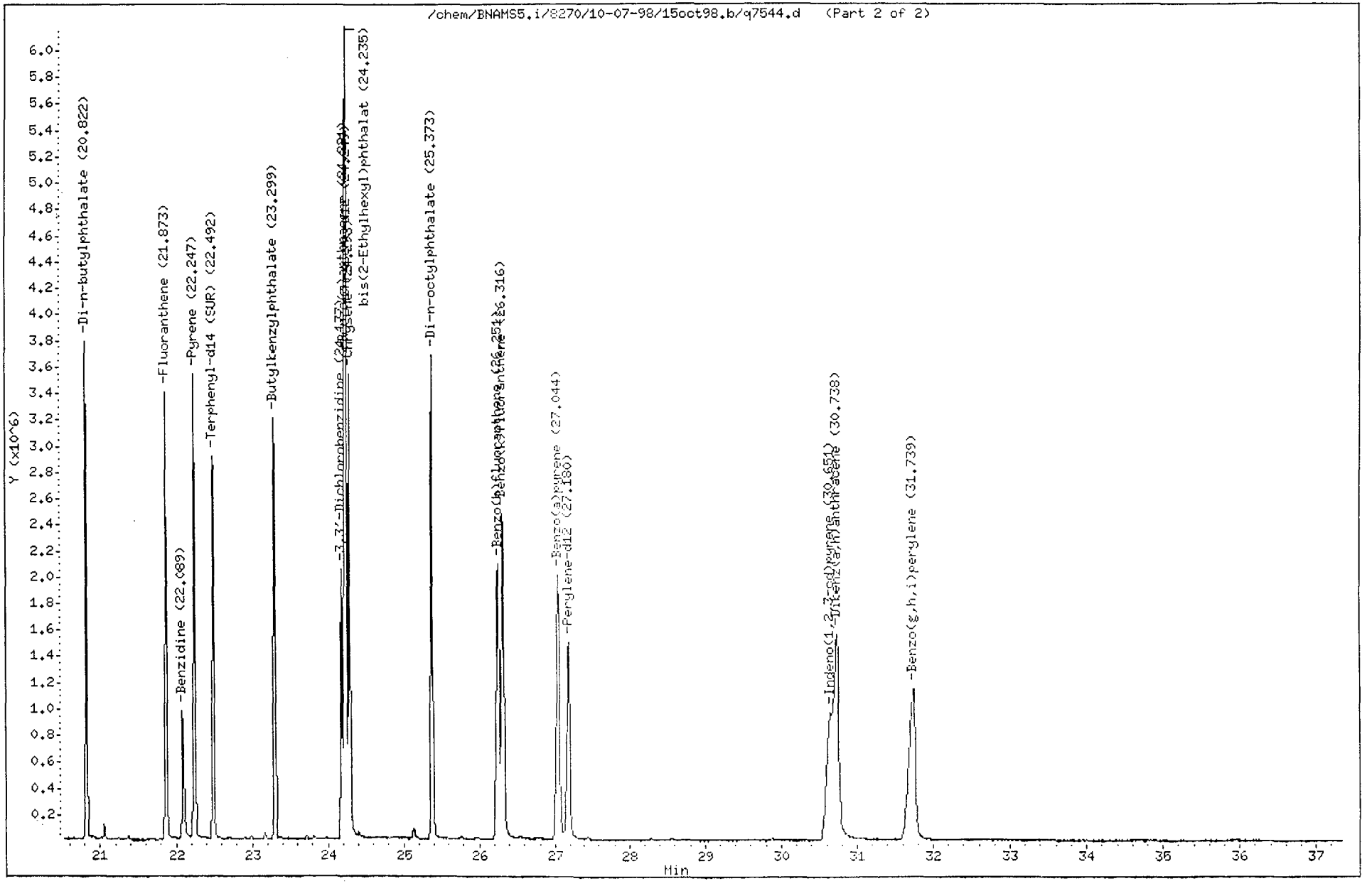


Data File: /chem/BNAMS5.i/8270/10-07-98/15oct98.b/q7544.d
Date : 15-OCT-98 11:03:00
Client ID: BNA
Sample Info: 4179BS;1000;2;1;;
Purge Volume: 1000.0
Column phase: DB-5

Instrument: BNAMS5.i
Operator: BNAMS3
Column diameter: 0.25

304242

705



VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): A6469 Date Analyzed: 10/20/98

Instrument ID: VOAMS1 Time Analyzed: 1106

		IS1 AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	3644575	10.52	3224925	14.13	1868847	16.69
	UPPER LIMIT	7289150	11.02	6449850	14.63	3737694	17.19
	LOWER LIMIT	1822288	10.02	1612462	13.63	934424	16.19
	LABORATORY SAMPLE NO.						
01	AV293	3574257	10.57	2931694	14.18	1608637	16.73
02	88559	3534771	10.51	3129121	14.15	1772841	16.70
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IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

304243

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): B8522 Date Analyzed: 10/18/98

Instrument ID: VOAMS2 Time Analyzed: 1150

		IS1 AREA #	RT #	IS2 (CBZ) AREA #	RT #	IS3 (DCB) AREA #	RT #
	12 HOUR STD	5526717	11.01	3597757	14.59	1728810	17.15
	UPPER LIMIT	11053434	11.51	7195514	15.09	3457620	17.65
	LOWER LIMIT	2763358	10.51	1798878	14.09	864405	16.65
	LABORATORY SAMPLE NO.						
01	BV291	4588018	11.01	3010842	14.59	1360095	17.15
02	88550	4806355	11.04	3179697	14.60	1428692	17.16
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IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

304244

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E4643 Date Analyzed: 10/15/98

Instrument ID: VOAMS5 Time Analyzed: 1023

		IS1 AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	2809110	9.11	2278567	12.76	696113	15.25
	UPPER LIMIT	5618220	9.61	4557134	13.26	1392226	15.75
	LOWER LIMIT	1404555	8.61	1139284	12.26	348056	14.75
	LABORATORY SAMPLE NO.						
01	EV288B	2792896	9.10	2198786	12.77	678251	15.24
02	88557	2869977	9.10	2226146	12.77	689026	15.24
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IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

304245

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): E4668 Date Analyzed: 10/16/98

Instrument ID: VOAMS5 Time Analyzed: 1020

		IS1 AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	2735045	9.08	2171695	12.75	667505	15.23
	UPPER LIMIT	5470090	9.58	4343390	13.25	1335010	15.73
	LOWER LIMIT	1367522	8.58	1085848	12.25	333752	14.73
	LABORATORY SAMPLE NO.						
01	EV289	2860235	9.09	2270549	12.75	686386	15.22
02	88560	2981801	9.09	2328494	12.75	719294	15.23
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IS1 = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

304246

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): S8212 Date Analyzed: 10/16/98

Instrument ID: BNAMS2 Time Analyzed: 0949

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
	12 HOUR STD	670526	12.66	2290711	14.85	1329363	24.60
	UPPER LIMIT	1341052	13.16	4581422	15.35	2658726	25.10
	LOWER LIMIT	335263	12.16	1145356	14.35	664682	24.10
	LABORATORY SAMPLE NO.						
01	SB288A	454947	12.67	1594561	14.85	1081197	24.58
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

304247

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): S8212 Date Analyzed: 10/16/98

Instrument ID: BNAMS2 Time Analyzed: 0949

		IS4(ANT) AREA #	RT #	IS5(PHN) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	1382697	17.76	2162417	20.22	1496801	27.76
	UPPER LIMIT	2765394	18.26	4324834	20.72	2993602	28.26
	LOWER LIMIT	691348	17.26	1081208	19.72	748400	27.26
	LABORATORY SAMPLE NO.						
01	SB288A	995676	17.76	1486594	20.22	1145229	27.75
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IS4 (ANT) = Acenaphthene-d10
IS5 (PHN) = Phenanthrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

304248

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): S8290 Date Analyzed: 10/20/98

Instrument ID: BNAMS2 Time Analyzed: 1004

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
	12 HOUR STD	556261	12.67	1918958	14.86	1206897	24.61
	UPPER LIMIT	1112522	13.17	3837916	15.36	2413794	25.11
	LOWER LIMIT	278130	12.17	959479	14.36	603448	24.11
	LABORATORY SAMPLE NO.						
01	88562	531503	12.68	1847987	14.86	1054757	24.59
02	88563	508926	12.68	1788676	14.86	1011902	24.60
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

304249

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): S8290 Date Analyzed: 10/20/98

Instrument ID: BNAMS2 Time Analyzed: 1004

		IS4(ANT) AREA #	RT #	IS5(PHN) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	1243091	17.78	1856495	20.23	1350004	27.78
	UPPER LIMIT	2486182	18.28	3712990	20.73	2700008	28.28
	LOWER LIMIT	621546	17.28	928248	19.73	675002	27.28
	LABORATORY SAMPLE NO.						
01	88562	1184030	17.78	1728460	20.24	740195	27.76
02	88563	1161050	17.78	1662858	20.23	690108	27.76
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IS4 (ANT) = Acenaphthene-d10
IS5 (PHN) = Phenanthrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

304250

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): S8305 Date Analyzed: 10/20/98

Instrument ID: BNAMS2 Time Analyzed: 2146

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
	12 HOUR STD	511755	12.67	1773563	14.85	1014245	24.60
	UPPER LIMIT	1023510	13.17	3547126	15.35	2028490	25.10
	LOWER LIMIT	255878	12.17	886782	14.35	507122	24.10
	LABORATORY SAMPLE NO.						
01	88565	617745	12.66	2165783	14.85	1118607	24.60
02	88566	497566	12.66	1746532	14.85	1000348	24.58
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

304251

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): S8305 Date Analyzed: 10/20/98

Instrument ID: BNAMS2 Time Analyzed: 2146

		IS4(ANT) AREA #	RT #	IS5(PHN) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	1101224	17.77	1579058	20.23	1091129	27.77
	UPPER LIMIT	2202448	18.27	3158116	20.73	2182258	28.27
	LOWER LIMIT	550612	17.27	789529	19.73	545564	27.27
	LABORATORY SAMPLE NO.						
01	88565	1393210	17.76	1810267	20.22	794024	27.79
02	88566	1116182	17.76	1580322	20.22	743343	27.74
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IS4 (ANT) = Acenaphthene-d10
IS5 (PHN) = Phenanthrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

304252

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): Q7510 Date Analyzed: 10/14/98

Instrument ID: BNAMS5 Time Analyzed: 0805

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
	12 HOUR STD	422728	12.29	1849339	14.49	1306121	24.29
	UPPER LIMIT	845456	12.79	3698678	14.99	2612242	24.79
	LOWER LIMIT	211364	11.79	924670	13.99	653060	23.79
	LABORATORY SAMPLE NO.						
01	WB282B	418247	12.29	1758399	14.48	1256311	24.27
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

304253

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): Q7510 Date Analyzed: 10/14/98

Instrument ID: BNAMS5 Time Analyzed: 0805

		IS4(ANT) AREA #	RT #	IS5(PHN) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	1023195	17.42	1567075	19.89	1421142	27.25
	UPPER LIMIT	2046390	17.92	3134150	20.39	2842284	27.75
	LOWER LIMIT	511598	16.92	783538	19.39	710571	26.75
	LABORATORY SAMPLE NO.						
01	WB282B	1027523	17.42	1556238	19.89	1309489	27.24
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IS4 (ANT) = Acenaphthene-d10
IS5 (PHN) = Phenanthrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

304254

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): Q7541 Date Analyzed: 10/15/98

Instrument ID: BNAMS5 Time Analyzed: 0841

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
	12 HOUR STD	354743	12.25	1565465	14.46	1069866	24.25
	UPPER LIMIT	709486	12.75	3130930	14.96	2139732	24.75
	LOWER LIMIT	177372	11.75	782732	13.96	534933	23.75
	LABORATORY SAMPLE NO.						
01	88548	308523	12.25	1338198	14.45	1096344	24.24
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

304255

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): Q7541 Date Analyzed: 10/15/98

Instrument ID: BNAMS5 Time Analyzed: 0841

		IS4(ANT) AREA #	RT #	IS5(PHN) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	877158	17.39	1325255	19.86	1192005	27.18
	UPPER LIMIT	1754316	17.89	2650510	20.36	2384010	27.68
	LOWER LIMIT	438579	16.89	662628	19.36	596002	26.68
	LABORATORY SAMPLE NO.						
01	88548	812057	17.39	1315497	19.85	1087953	27.17
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IS4 (ANT) = Acenaphthene-d10
IS5 (PHN) = Phenanthrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

304256

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): M2809 Date Analyzed: 10/15/98

Instrument ID: BNAMS6 Time Analyzed: 1055

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(CRY) AREA #	RT #
	12 HOUR STD	267273	13.25	997881	15.44	2005211	25.38
	UPPER LIMIT	534546	13.75	1995762	15.94	4010422	25.88
	LOWER LIMIT	133636	12.75	498940	14.94	1002606	24.88
	LABORATORY SAMPLE NO.						
01	SB287B	257696	13.25	975217	15.43	1875023	25.36
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (CRY) = Chrysene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

304257

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab File ID (Standard): M2809 Date Analyzed: 10/15/98

Instrument ID: BNAMS6 Time Analyzed: 1055

		IS4(ANT) AREA #	RT #	IS5(PHN) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	705389	18.39	1448718	20.87	1534570	29.28
	UPPER LIMIT	1410778	18.89	2897436	21.37	3069140	29.78
	LOWER LIMIT	352694	17.89	724359	20.37	767285	28.78
	LABORATORY SAMPLE NO.						
01	SB287B	696855	18.38	1451500	20.86	1572589	29.25
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IS4 (ANT) = Acenaphthene-d10
IS5 (PHN) = Phenanthrene-d10
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

304258

Notebook No. _____
Continued From Page _____

VOA1 (8260 High)

DATE	DATA FILE	ALS	SAMPLE #	TAB #	CCA	WT/VOL	SCR DF	WC WT	SUBLIST	LPB	MI	CLP DF	STD LOT #	RESULTS
10 7 98	A6156	-	ABFB250					Ind					Scan. V98-492	C 98(95%) Scan 37 5:45
	A6157	1	ASTD005										SU22BH V98-482	G
	~~A6158~~	~~1~~	~~ASTD005~~	MD									5242VCX V98-489	NG
	A6159	2	ASTD020										ER8260CH V98-484	G
	A6190	3	ASTD050										ER-VBCXT V98-556	G
	A6191	4	ASTD100										CVERC1 V98-486	G
	A6192	5	ASTD200											G
	A6193	6	BLK											-

8260 High Calibration

LP 10/7/98

304259

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Continued on Page

Date 11/5/98

PROJECT VCAI — S2C0 MeOH

Date	Deliable	Ac	Sample	Jobs	GA	Wt/Vol	Scr Dil	Vol Inj Ind	Subject	LPB	PA	Cf	Std Total	Results
10/20	A6468	0	ABS6293											G
	A6469	1	ASTD 293											G
	A6470	2	Blank										Same as Pg 69	—
	A6471	3	AV293											not used
	A6472	4	AV293											G
	A6473	5	88559	H941	8040	11.29/2 Sml	500		HSL 60A 110	AV293				G
	A6474	6	87906	I 120	8042	5.09/10ml	520		P/V 60A					~~RR 40~~ G not used
	A6475	7	91021	J319	8040	10.09/2 Sml	50		HSL 60A 110-1					~~G~~ RR 40 NG
	A6476	8	91023			9.79/								~~Surr RR~~ -59 G
	A6477	9	91024			10.39/								Surr RR ST G Conf A6496
	A6478	10	91028			10.09/								~~G~~ Surr RR ST G Conf A6498
	A6479	11	91029			10.19/								~~Surr RR~~ ST G
	A6480	12	91027			7.59/								~~G~~ Surr RR ST G Conf A6497
	A6481	13	91026			10.89/								G
	A6482	14	91025			11.59/								G
	A6483	15	89870	I 193	8044	38.79/100 ml			BBL					G
	A6484	16	886666	H950	8010	10.89/25 Sml	250		HSL 60A 110					G
	A6485	17	86674	H952	8042	5.11/10ml	100		BTL 150 NaN					G
	A6486	18	90273	J 205		5 /10ml	100		P/V 60A 115					Surr RR ST G Conf A6499
	A6487	19	Blank											
	A6488	20	Blank											

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VI 10-21-98

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Date

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86
PROJECT UOAI 8260 MeOH

Notebook No.
Continued From Page

Date	Datafile	A/S	Sample	Job	QA	wt/vol	SCR DF	Vol Inj	Sub list	LPB	pH	CLP DF	Std Lot(H)	Results
10/25	A6578	0	AB15B248											G
	A6579	1	AS15B248										Same as Pg 65	G
	A6580	2	Blank											—
	A6581	3	AV298											G
	A6582	4	8040BS		8040				8260wcl					NG-RR
	A6583	5	806635		8066									NG-RR
	A6584	6	89997MS	I161		10.79/25ml	50			A1278				G
	A6585	7	89997MSD			10.79/								G
	A6586	8	91023MS	I351	8040	9.60/								G
	A6587	9	91023MSD			9.92/								G
	A6588	10	89997	I161	8066	10.79/			PPVOA115					(G) BRC/O
	A6589	11	89998			10.09/								BRC/O-NG
	A6590	12	90263	I204	8068	11.89/			PPVOA110					G
	A6591	13	90264			11.49/								G
	A6592	14	90265			10.49/								G
	A6593	15	90266			11.29/								G
	A6594	16	90267			10.09/								G
	A6595	17	90301	I208	8040	9.96/			HSLVOA110					G
	A6596	18	90303			10.29/								G
	A6597	19	90309			9.50/								G
	A6598	20	90305			10.09/								G
	A6599	21	89777	I130	8068	1.50/	200		PPVOA110					G
	A6600	22	Blank											—

304261

10-26-98

Signature 10-26-98 Date

Continued On Page

Continued From Page

24

PROJECT 8260 HIGH (new sited)

Notebook No. _____

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304262

DATE	DATA FILE	AC S	SAMPLE #	TOB #	GA	WT/VOL	SCH DF	VOL INJ	SURGE	LPB	PH	CLP DF	STD LOT #	REMARKS
9-29-98	B8230	-	RBFB272A					[illegible]				50ppm [illegible] V98-461	V98-492	G
	B8231	1	RCL									50ppm [illegible]		
	B8232	2	RCL									50ppm V98-485	V98-482	G
	B8233	11	RSTD005									50ppm [illegible] V98-490	V98-489	NCL
	B8234	12	RSTD001									50ppm [illegible] V98-485	V98-484	G
	B8235	13	RSTD020									50ppm [illegible] V98-470	V98-491	G
	B8236	14	RSTD050									50ppm [illegible] V98-487	V98-486	G
	B8237	15	RSTD100									50ppm [illegible] V98-494		
	B8238	16	RSTD200									50ppm [illegible] V98-517		
	B8239	1	RCL											

updated 9-30-98

QW 9-30-98

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9-29-98 Date

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Date

PROJECT LOA2 8260 H10

Notebook No. _____

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Date	Data file	ALS	sample	JOB	QA	Vol Inj	wt/vol	SCR PT	LPB	pH	sublist	Results
10-18-98	B8521	0	BBTB291									G
	B8522	1	BSTD291									G
	B8523	2	BV291									NG
	B8524	3	↓									G
	B8525	4	90245	J199	8359		5 ml	ST	BV291		TCLP	G
	B8526	5	90246	↓	↓		↓	↓	↓		↓	G
	B8527	6	90247									G
	B8528	7	2101698									G
	B8529	8	90245MS	J199							TCLP ~~8260 all~~	G
	B8530	9	90 ~~254~~ 245 MSD SW	↓							↓	G
	B8531	10	8359BS									G
	B8532	11	88550 TB	H941	8361						TCL+10	G
	B8533	12	88776	H969	↓						PP+10	G
	B8534	13	88777	↓							↓	G
	B8535	14	88778									G
	B8536	15	88779									G
	B8537	16	88780				1 ml	5				G
	B8538	17	88781				5 ml	ST				G
	B8539	2	88782				↓	↓				G
	B8540	3	88783									G
	B8541	4	88784									G J.W
	B8542	5	88785 TB.	↓	↓		↓	↓	↓		↓	out of clock

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304263

Signed Jane Uhr Date 10-18-98 Signed Date

PROJECT NOAA 2 8260 M/H

Date	Data file	ALS	Sample	JOB	QA	Vol Inj	Wt/Vol	DF	LPB	pH	Sublist	Results
10-19-98	B8543	-	BDFB372									G
	B8544	1	BSTD372									G
	B8545	2	BV372									NG
	B8546	3	↓									G
	B8547	4	88785 TB	H969	8361		5 ml	ST	Bvsyl		PP+10	RR c/o
	B8548	5	88784MS	↓	↓		↓	↓	↓		8260 all	RR ↑s.
	B8549	6	88784MSD	↓	↓		↓	↓	↓		↓	G
	B8550	7	8361 BS	↓	↓		↓	↓	↓		↓	G ~~RR~~ J.W.
	B8551	8	88785 TB	↓	↓		↓	↓	↓		PP+10	RR c/o
	B8552	9	90158	J185	8365		↓	↓	↓		TCL+10	G
	B8553	10	90159	↓	↓		0.2	25	↓		↓	G
	B8554	11	90160	↓	↓		2.5	2	↓		↓	G
	B8555	12	90161	↓	↓		5	ST	↓		↓	G
	B8556	13	90162	↓	↓		↓	↓	↓		↓	G
	B8557	14	90163	↓	↓		0.5	10	↓		↓	G
	B8558	15	88915	H986	8361		5	ST	↓		TCL	G Full Rip
	B8559	16	88916	↓	↓		↓	↓	↓		↓	NG leak
	B8560	1	88917	↓	↓		↓	↓	↓		↓	G
	B8561	2	88918	↓	↓		↓	↓	↓		↓	G
	B8562	3	88919	↓	↓		↓	↓	↓		↓	G J.W.
	B8563	4	88920	↓	↓		↓	↓	↓		↓	out of clock

John Uhler 10-19-98

304264

Date	Data file	ALS	Sample	JOB	QA	Vol Inj	Wt/Vol	DF	LPB	pH	Sublist	STD Lot	Results
10-30-98	B8564	–	BBFB 293										G
	B8565	1	BSTD 293										G
	B8566	2	BV 293										Not used
	B8567	3	↓										G
	B8568	3	88785	H969	8361		5 ml	ST	BV293		Pp+10		G
	B8569	4	88784 MS	↓	↓		↓	↓	↓		8260 all		G
	B8570	5	8365 BS	↓	8365		↓	↓	↓		↓		G
	B8571	6	70356	J202	8355		↓	↓	↓		TCL+10		G
	B8572	7	B2										NG
	B8573 J.W.	8	70158 MS	T185	8365		↓	↓	↓		8260 all		G
	B8574 J.W.	8	70158 MSD	↓	↓		↓	↓	↓		↓		G ~~AP+~~ J.W
	B8575	10	88716	H986	8361		↓	↓	↓		TCL-Ben +VA		G Full Ap
	B8576	11	88720	↓	↓		↓	↓	↓		↓		G ↓
	B8577	12	88721	↓	↓		↓	↓	↓		↓		G ↓
	B8578	13	88722	↓	↓		↓	↓	↓		↓		G ↓
	B8579	14	88790	J002	8365		↓	↓	↓		TCL+10		G
	B8579 80	15	89178 FB	J031	↓		↓	↓	↓		(BT-ISO-NAP) special		G Full Ap
	B8581	16	90164	I185	↓		↓	↓	↓		TCL+10		NG leak
	B8582	16	90165 TB	↓	↓		↓	↓	↓		↓		G
	B8583	2	89219	J040	↓		↓	↓	↓		TCL+10		G
	B8584	3	89438 FB	J073	↓		↓	↓	↓		↓		G J.W out of clock
	B8585 J.W.	4	89441 TB	↓	↓		↓	↓	↓		↓		out of clock
	~~B8586~~ J.W.	6											

304265

PROJECT VOA 5 Inj Log

Notebook No. 01084

Continued From Page

DATE	DATA FILE	ALS	SAMPLE #	JOB #	QA	WT/VOL	SCR DIL.	VOL INJ	SUBLIST	LPB	pH	STD LOT#	RESULTS
10/14/98	E4607	–	EBFB287			50 mg		1 µL					
	E4608	1	ESTD005			5 mL		5 mL					NG
	E4609	2	ESTD005			↓		↓					G
	E4610	3	ESTD020			↓		↓					G
	E4611	4	ESTD050			↓		↓					G
	E4612	5	ESTD050			↓		↓					NG
	E4613	6	ESTD100			↓		↓					G
	E4614	7	ESTD200			↓		↓					G
	E4615	8	BLNK			↓		↓					did not use
	E4616	9	BLNK			↓		↓					did not use
	E4617	10	703465		7031	↓		↓					G
	E4618	11	EV287			↓		↓					G
	E4619	12	85266MS	H481	7031	38/100	50	1000	all sub	EV287			G
	E4620	13	85266MSD	↓	↓	↓	↓	↓	↓	↓			G
	E4621	14	85457MS	H515	7032	29/25	↓	↓	↓	↓			G
	E4622	15	85457MSD	↓	↓	↓	↓	↓	↓	↓			G
	E4623	–	EBFB287A										G
	E4624	1	ESTD287A										G
	E4625	2	EV287A 55										G
	E4626	3	~~BLNK~~										G
	E4627	4	EV287A										G
	E4628	5	88247	H872	8018	29.1/500	50	1000	H5170A+10	EV287A			G
	E4629	6	88243	↓	↓	98/500	↓	↓	↓	↓			~~NG~~ ↑
	E4630	7	88244	↓	↓	98.9/500	↓	↓	↓	↓			G
	E4631	8	88245	↓	↓	99/500	↓	↓	↓	↓			G
	E4632	9	88246	↓	↓	99.2/500	↓	↓	↓	↓			NG surr ↓
	E4633	10	88163	H877	8002	5.09/10	↓	↓	↓	↓			G
	E4634	11	88154	↓	↓	5.02/10	↓	↓	↓	↓			G
	E4635	12	88155	↓	↓	5.15/10	↓	↓	↓	↓			G

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Date 10/15/98

Continued on Page

304266

PROJECT 100 A S Tag Log

Notebook No. 6084

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DATE	DATA FILE	ALD	SAMPLE #	JOB #	QA	WT/VOL	SPR D.F.	VOL IND	SUBLIST	LPB	pH	STD LOT #	RESULTS
10/15/88	E4642 ~~E5FB288~~	–	E5FB288			50mg		1ml					G
	E4643 ~~E5TD288~~	1	E5TD288			5ml		5ml					G
	E4644	2	E5			↓		↓					did not use
	E4645	3	EV288A										did not use
	E4646	4	EV288A										G
	E4647	5	88243	H692	8018	98/500	50	1000	HSLVOAH10	EV288A			NG
	E4648	6	88240	↓	↓	99.2/500			↓				NG
	E4649	7	E5482MS	H518	7050	5.22/10			all sub				C
	E4650	8	E5482MSD	↓	↓	↓			↓				C
	E4651	9	BLNK										did not use
	E4652	10	E9641	I104	8020	11/25			PPVOAWT_H				NG
	E4653	11	EV288B			5ml	50	5ml		EV288B			G
	E4654	12	705255		7050	↓	↓	↓					G
	E4655	13	88283	H501	8020	10/25	50	1000	PPVOAH10				RR RECOVERY
	E4656	14	88557	H541		11/25			HSLVOAH10				G
	E4657	15	88002	H550		10/25							G
	E4658	16	88684			10.7/25							G
	E4659	17	88685			10/25							G
	E4660	18	88686			10.2/25							G
	E4661	19	88689	H552	8002	5.55/10			ACOE102 sub ~~B7HAF~~				G
	E4662	20	88980	I002	8020	9.8/25			HSLVOAH10				G
	E4663	21	88981	↓		10/25			↓				G
	E4664	22	88279	H501		11/25			PPVOAH10				G
	E4665	23	88560	H941		10.7/25	100	500	HSLVOAH10				NG c/o
	E4666	24	XSTD288			5ml		5ml					did not use

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Reviewed and Approved By [illegible] Signed Date 11/5/88

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304267

PROJECT VOA 5 Inj Log

Notebook No. 01084

Continued From Page

83

304268

DATE	DATA FILE	ALS	SAMPLE #	QA ~~JOB #~~	JOB # ~~QA~~	WT/VOL	SCP DIF.	VOL. INJ	SUBLIST	LPB	pH	STD LOTH	RESULTS
10/16/98	E4667	–	EBFB289			5 mg		1 µl					G
	E4668	1	ESTD289			5 ml		5 ml					G
	E4669	2	8018 BS	8018		↓		↓					G
	E4670	3	BLNK										did not use
	E4671	4	EV289										G
	E4672	5	88283	8020	H991	10/25	50	100	PPVOA+10	EV289			G
	E4673	6	89643	↓	I1 01	10/25	↓	↓	PPVOA+10	↓			G
	E4674	7	89641		↓	11/25			↓				G
	E4675	8	88560		H941	10.7/25	100	[illegible]	HSLVOA+10				G
	E4676	9	88743 R1	8018	H892	98/500	50	1000	↓				confirm e4629
	E4677	10	88246	↓	↓	99.2/500	↓	↓					G
	E4678	11	88244MS			98.9/500			all sub				G
	E4679	12	88244MSD			98.9/500			↓				G
	E4680	13	BS			5 ml		5 ml	all sub				did not use
	E4681	–	EBFB289A			5 mg		1 µl					G
	E4682	1	ESTD289A			5 ml		5 ml					G
	E4683	2	BS			↓		↓					G
	E4684	3	BLNK										G
	E4685	4	EV289A										G
	E4686	5	88982	8028	H999	10/25	50	1000	PPVOA+10	EV289A			G
	E4687	6	88998	8020	I001	10/25	↓	↓	↓	↓			G
	E4688	7	89033	↓	I007	10/25							G
	E4689	8	89042	8028	I009	10/25							G
	E4690	9	89198	8020	I035	10/25							G
	E4691	10	89172	↓	I028	10.8/25							G
	E4692	11	89195		I035	10.2/25							G
	E4693	12	89196		↓	9.6/25							G
	E4694	13	89197			10.5/25							G
	E4695	14	89008	8028	I009	9.7/25	100	[illegible]					G

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Continued on Page

PROJECT: VOA 5 Tj LG

Date	Data File	Vs	Sample #	Jobs#	QA	wt/vol	Sol Vol	Vol Inj µL	Sublist	LPB	Pill	Sel Lot#	Results
10/26/99	E4852	-	E4662			50 g							
	E4853	1	E5750			5 mL							
	E4854	2	EUE99										
	E4855	3	EUE99										
	E4856	4	EUE99										
	E4857	5	90449	I220	8064	10.0g/5mL	30		VOA 115	EUE99			
	E4858	6	90441	I150	8064	6.22g/10mL			Fast Dil #2				MG, 90 MP Calibration
	E4859	7	90445			5.66g/10mL							
	E4860	8	90420	I165	8064	9.8g/5mL	150		VOA 116				Did not run
	E4861	9	90432	I220	8070	11.3g/5mL	30		VOA 117				
	E4862	10	90444		8070	11.1g/5mL							
	E4863	11	90446			10.5g/5mL							
	E4864	12	90448			11.5g/5mL							
	E4865	13	90442			10.1g/5mL							
	E4866	14	90439			10.3g/5mL							
	E4867	15	90438		8070	9.76g/5mL							
	E4868	16	90436			10.0g/5mL							
	E4869	17	90431			11.3g/5mL							
	E4870	18	89777	I130	8064	7.5g/5mL	200		VOA 110				Did not run
	E4871	19	90485		8064	5 mL							
	E4872	20	89778MS	I132	8064	9.8g/5mL	50						MG Check
	E4873	21	89778MSD										

11/24/99

304269

VOA 5 Inj Log

DATE	DATA FILE	ALS	SAMPLE #	JOB #	QA	WT/VOL	SCR D.F.	VOLING	SUBLIST	LPB	pH	STD LOT #	RESULTS
10/29/98	E4916	--	EBFB302			50mg		1µL					NG
	E4917	--	EBFB302			↓		↓					G
	E4918	1	ESTD302			5mL		5mL					G
	E4919	2	802065		8020	↓		↓					G
	E4920	3	EV302			↓		↓					[illegible]
	E4921	4	EV302			↓		↓					G
	E4922	5	91360	I378	8092	10/25	50	1000	HSLVOA+10	EV302			G
	E4923	6	91297	I365	↓	10/25	↓	↓	PPVOA+10	↓			G
	E4924	7	91394	I383	↓	10/25	↓	↓	↓	↓			G
	E4925	8	91300	I365	↓	10/25	↓	↓	PPVOA+10	↓			G
	E4926	9	91345	I378	↓	10/25	↓	↓	HSLVOA+10	↓			G
	E4927	10	91346	↓	↓	10/25	↓	↓	↓	↓			G
	E4928	11	91351	↓	↓	10/25	↓	↓	↓	↓			~~NG~~ 7.1 ~~[illegible]~~ 5.0
	E4929	12	91352	↓	↓	8.8/25	↓	↓	↓	↓			G
	E4930	13	91354	↓	↓	10.3/25	↓	↓	↓	↓			G
	E4931	14	91355	↓	↓	[illegible]	↓	↓	↓	↓			G
	E4932	15	91356	↓	↓	8.3/25	↓	↓	↓	↓			G
	E4933	16	91357	↓	↓	[illegible]	↓	↓	↓	↓			G
	E4934	17	91358	↓	↓	9.2/25	↓	↓	↓	↓			G
	E4935	18	91348	↓	↓	9.9/25	250	100	↓	↓			G
	E4936	19	91350	↓	↓	9.5/25	↓	↓	↓	↓			G
	E4937	20	91035	I323	8016	5/10	1000	150	HSLVOA+10	↓			G
	E4938	21	90448115	I220	8020	11.5/25	50	1000	[illegible]	↓			G
	E4939	22	90448150	↓	↓	↓	↓	↓	↓	↓			G
	E4940	23	XSTD302			5mL		5mL		↓			G

304270

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Page

PROJECT BNA 2 Inj Log

Continued From Page

DATE	DATAFILE	SAMPLE	W4/VOL	FV	DIL	JOB	Inj Vol	QA	EXT DATE	LPB	COMMENTS	A/S	SUB
9/28	S7717	SDFT271					2ul				NG	96	
	S7718	↓					↓				↓	↓	
	S7719												
	S7720												
	S7721												
	S7722										G	96	
	S7723	SSTD271					1ul				NG	1	
	S7724	SDFT271					2ul				G	96	
	S7725	SSTD271					1ul				NG	1	
	S7726	SDFT271					2ul				G BNA 741A	96	
	S7727	SSTD050					1ul				G	1	
	S7728	SSTD ~~080~~ 120									G	2	
	S7729	SSTD080									G G for 8270 and	3	
	S7730	SSTD020									G 625 & 8270 DEL	4	
	S7731	SSTD005									NG BNA 746	5	
	S7732	~~SSTD010~~ SSTD005									G	6	
	S7733	SSTD010									G	7	

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Continued on Page

304271

PROJECT BNA 2 Inj. Log

Notebook No. 1140

Continued From Page

DATE	DATAFILE	SAMPLE #	WT VOL	F.V.	DIN	JOB#	INJ VOL	QA	EXT DATE	LOB #	comments	ALS	Sub.
10/16	S8211	SDFT289					2uL				G BNA741B	96	
	S8212	SSTD289					1uL				G BNA746	1	
	S8213	ISTDLOTTEST									X	2	
	S8214	EB288	250ml	2mL	str.	-		-	10/15	EB288	G	3	BNA
	S8215	TB286				-		-	10/13	TB286	G	4	
	S8216	TB287				-		-	10/14	TB287	G	5	
	S8217	89377	250ml			I066		4145	10/15	EB288	G	6	TCLPBNA
	S8218	89663				I113					G	7	
	S8219	89664									G	8	
	S8220	89665									G	9	
	S8221	90188	30gH		20X	I189		4726	10/15	SB288A	G	10	PPBN(+)
	S8222	SB288A			str.	-		-			G	11	BNA

Continued on Page

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16

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Notebook No. 140

Continued From Page

DATE	DATAFILE	Sample#	Wt-Vol	F.V.	Diln	Job#	Ini Vol	QA	EXT DATE	LPB#	Comments	AJ	Sub
10/16 (Cont)	S8223	SDFT289A					2uL				G - BNA 741B	96	
	S8224	SSTD050					1uL				NG - BNA 746	1	
	S8225	SSTD050									G - BNA 796	1	
	S8226	SSTD0120									G	2	
	S8227	SSTD080									G	3	
	S8228	SSTD020									G	4	
	S8229	SSTD010									G	5	
	S8230	SSTD005-S									G	6	
	S8231	WB281	1000	2ml	Str	-		-	10/8	WB281	G	7	BN
	S8232	WB288	1000	2ml	Str	-		-	10/15	WB288	G	8	BNA
	S8233	87123	880	2ml	Str	H745		4159	10/6	WB279	G	9	PPBNA (+)
	S8234	87283	970	2ml	Str	H768		4159	10/6	WB279	G	10	TCLBNA (+)
	S8235	87369	940	2ml	Str	H785		4159	10/6	WB279	G	11	TCLBNA (+)
	S8236	87484	900	2ml	Str	H798		4175	10/8	WB281	G	12	PAH
	S8237	87236	920	2ml	2x	H759		4159	10/6	WB279	G	13	12BNA
	S8238	87401	940	2ml	Str	H788		4173	10/7	WB280A	G	14	TCLBN (+)
	S8239	87402	930								G	15	
	S8240	87403	910								G	16	
	S8241	87404	960								G	17	
	S8242	87405	930								G	18	
	S8243	87406	980								G	19	
	S8244	87407	900								G	20	
	S8245	87407 MS									G	21	
	S8246	87407 MSD									G	22	
	S8247	87408	960								G	23	
	S8248	87410	950								G	24	
	S8249	87411	950								G	25	
	S8250	4173 BS	1000								G	26	
	S8251	87508	1000	2ml	Str	H804		4153	10/2	WB275	G	27	PPBNA
	S8252	87508 MS									G	28	

Continued on Page

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304273

10/22/98

20

PROJECT BNA & Inj Log

Notebook No. 1140

Continued From Page

DATE	DATAFILE	SAMPLE #	wt/vol	FV	DILN	JOB	Inj Vol	QA ~~EXT DATE~~	EXT DATE	LPB#	COMMENTS	A/S	SUB
10/20	S8289	SDFT293					2ul				G BNA741B	96	
	S8290	SSTD293					1ul				G BNA796	1	
	S8291	4748BS	30g	2ml	str.	–		4748	10/14	SB287		2	all
	S8292	88501				H936		4748	10/14	SB287		3	PPBNA⊕
	S8293	88501MS										4	
	S8294	88501MSD										5	
	S8295	88506		5ml	100x						N.G. RR 25x	6	
	S8296	88507		2ml	5x						G	7	
	S8297	88502			str.							8	
	S8298	88503										9	
	S8299	88504									R.R. low internal stan.	10	
	S8300	88677		5ml	5x	H950		4734	10/15	SB288A	NG. R.R 2x	11	TCLBN⊕
	S8301	88562		2ml	str.	H941					G.	12	
	S8302	88563									G.	13	
	S8303	88565									R.R Low internal sta.	14	

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PROJECT BNA 2 Inj Log

Notebook No. 1140

Continued From Page

DATE	DATAFILE	SAMPLE#	WT/VOL	FV	DILN	JOB	INJ VOL	QA	EXT DATE	LPB#	COMMENTS	ACC	SUB
10/20	S8304	SDFT293A					2ul				G BNA 741B	96	
(cont)	S8305	SSTD293A					1ml				G BNA 796	1	
	S8306	SB287	30g	2ml	STR			4744	10/14	SB 287A	G	2	all ~~All-AE surr~~
	S8307	4744BS								SB287A	G JN	3	All-AE surr ~~PA11~~
	S8308	88691				H952					G	4	~~PA H952~~ ~~all-AE surr~~
	S8309	88691MS									G	5	all-AE surr
	S8310	88691MSD									G	6	↓
	S8311	88688									G	7	H952 ~~PA11~~
	S8312	88689									G	8	
	S8313	88690		↓	↓	↓		↓	↓	↓	G	9	↓
	S8314	88506		5ml	25x	H936		4748	10/14	SB 287	NG-RR at 50X	10	PPBNA⊕
	S8315	88565		2ml	STR	H941		4734 ~~4350~~	10/15	SB 288A	G	11	TCLBN⊕
	S8316	88566		↓	↓	↓		↓	↓	↓	G	12	↓
	S8317	88677		5ml	2x	H950		4734	10/15	SB 288A	NG-RR STR	13	↓
	S8318	88504		2ml	STR	H936		4748	10/14	SB 287	NG RR/ISTD OUT	14	PPBNA⊕
	S8319	88505	↓	↓	↓	↓	↓	↓	↓	↓	NG-RR at 25X	15	↓
	S8320	BLK									X	16	

Continued on Page

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PROJECT BNA 5 Tray Log

Notebook No. 1081

Continued From Page

DATE	DATAFILE	SAMPLE	wt/vol	FV	DIL FV	JOB DIL	Inj vol	QA FOB	EXT DATE	LPB#	COMMENTS	A/S	SUB
10/7	Q7330	QDFT280					2ul				NG	96	
	Q7331												
	Q7332												
	Q7333												
	Q7334												
	Q7335												
	Q7336										G		
	Q7337	QSTD280					1ul				NG (failed for Pentachloro phenol & Hexachlorobenzene)	1	
	Q7338	QDFT280					2ul				G BNA741B	96	
	Q7339	QSTD050					1ul				G	1	
	Q7340	QSTD120									G Range Good for	2	
	Q7341	QSTD080									G 8270 only	3	
	Q7342	QSTD020									G BNA 796	4	
	Q7343	QSTD005									G	5	
	Q7344	QSTD010									NG	6	

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Continued on Page

PROJECT BNA 5 TYS Lab

Notebook No. 1881

Continued From Page

DATE	DATE	Sample	Wt	F.V	D.C	Jobs	Int	QA	Ext DATE	LPB	Comments			Subst
10-10-	Q7426	QDFT283					2ml				G	BNA74KB	96	
	Q7427	QSTD283					1ml				G	BNA796	1	
	Q7428	4694BS	30g	2ml	STR	H631		4694	10/5-	SB 278B	G		2	all
	Q7429	85973	30g	2ml	~~STR~~ 10X	H583		4662	9/25	SB 268A	G		3	TCLBN (+)
	Q7430	85974			STR ~~10X~~						G		4	
	Q7431	85978			STR						G		5	
	Q7432	85979									G		6	
	Q7433	86309				H631		4694	10/5-	SB 278B	G		7	TCLBNA (+)
	Q7434	86309MS									G		8	all
	Q7435	86309MSD									G		9	
	Q7436	86295									G		10	TCLBNA (+)
	Q7437	86296									G		11	
	Q7438	86297			5X						G		12	
	Q7439	86298			STR						G		13	
	Q7440	85975				H583		4662	9/25	SB 268A	NG - RR at 2X		14	TCLBN (+)
	Q7441	86384			2X	H637		4696	10/5-	SB 278A	G		15	PPBNA
	Q7442	86380		5ml	STR						NG - out of clock		16	
	Q7443	BLK									X		17	
	Q7444										X		17	
	Q7445										X		17	
	Q7446										X		17	

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Continued on Page

304277

4 PROJECT BNA 5 Inj Log

Notebook No. 1148

Continued From Page

DATE	DATAFILE	SAMPLE	WT/VOL	FV	DILN	JOB	Inj Vol	QL	EXT DATE	LPB	COMMENTS	AK	SUB
10/14	Q7509	QDFT287					2µl				G BNA741B	96	
	Q7510	QSTD287					1µl				G BNA 796	1	
	Q7511	ISTD									~~G~~ OK BNA783U 10/14	2	
	Q7512	SB283	30g	2ml	STR						G	3	all
	Q7513	87021				H735		4710	10/7	SB 24 80	G	4	PAH
	Q7514	87026R1									G Confirm S8144 (Re extract)	5	↓
	Q7515	87033									G	6	PABNA
	Q7516	87034									G	7	PAH
	Q7517	87035	↓	↓	↓	↓	↓	↓	↓	↓	G	8	↓
	Q7518	WB282B	1000ml	2ml	Str	—	1µl				G	9	all
	Q7519	WB283	↓	↓	↓	—	↓				G	10	all BN
	Q7520	WB266A				—					~~G~~ U R/R surr low	11	all
	Q7521	85071	970ml	↓	↓	H447	↓	4139	9/25	WB266BC	G	12	TCLBN⊕
	Q7522	85081	940ml	↓	↓	H451	↓	4127	9/23	WB266A	G	13	↓

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304278

Continued on Page

6 PROJECT BNA 5 Inj Log

Notebook No. 1148

Continued From Page

DATE	DATAFILE	SAMPLE	wt/vol	FV	DILN	JOB	Inj vol	QA	EXT DATE	LAB	COMMENTS	A/S	SUB
10/15	Q7540	QDFT288					2µl				G BNA 741B	96	
	Q7541	QSTD288					1µl				G BNA 796	1	
	Q7542	ISTD									OK 783 U 10/15/98	2	
	Q7543	WB286A	1000ml	2ml	5tr	—					G	3	all
	Q7544	4179 BS	↓			—					G	4	all
	Q7545	85993	930ml			H586		4143	9/26	WB269	G	5	PPBN
	Q7546	88063	970ml			H862		4143	10/5	WB278A	G	6	TCLBN⊕
	Q7547	88430	990ml			H925		4179	10/9	WB282A	G	7	↓
	Q7548	88450	950ml			H928					G	8	TCLBNA⊕
	Q7549	88548	930ml			H941					G	9	TCLBN⊕
	Q7550	88692	980ml			H952					G	10	TCLBNA⊕
	Q7551	88990	980ml			I002		↓	↓	↓	G	11	TCLBN⊕
	Q7552	89027	990ml	↓	↓	I006	↓	4185	10/13	WB286A	G	12	TCLBNA⊕

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Continued on Page

304279

PROJECT BNA 5 INJ LOG

Notebook No. 1148

Continued From Page

DATE	DATA FILE	SAMPLE #	Wt/Vol	F.V.	DIL^C	JOB#	INJ VOL	QA	Ext Date	LPB #	COMMENTS	ALS	SUB
10/15	Q7553	QDFT288A					2µl				G BNA 741 B	96	
(cont.)	Q7554	QSTD288A					1µl				G BNA 796	1	
	Q7555	89115	1000ml	2ml	Str	I016		4179	10/9	WB282B	G	2	PPBNA
	Q7556	89115MS									G	3	all
	Q7557	89115MSD									G	4	
	Q7558	89219	960ml			I040		4185	10/13	WB286A	G	5	TCLBNA⊕
	Q7559	89572	960ml			I092					G	6	Fuel #2
	Q7560	88151	15g	1ml		H879		4734	10/13	SB286A	R/R surr low	7	TCLBNA⊕
	Q7561	88152	30g	2ml	10X						G	8	
	Q7562	88153			Str						G	9	
	Q7563	88154			2X						NG R/R Str	10	
	Q7564	88155	15g	1ml	Str						G	11	
	Q7565	88156	30g	2ml							G	12	
	Q7566	88157									G	13	
	Q7567	88160			10X						G	14	
	Q7568	88161			10X						G	15	
	Q7569	88163	15g	1ml	Str						G	16	
	Q7570	BLK									—	17	—
	Q7571	BLK									—	17	—
	Q7572	BLK									—	17	—

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PROJECT BNA 5 INJ LOG

Notebook No. 1148

Continued From Page

DATE	DATA FILE	SAMPLE #	Wt/Vol	F.V.	DIL^C	JOB#	INJ VOL	QA	Ext Date	LPB#	COMMENTS	ALS	SUB
10/16	Q7584	QDFT289A					2ml				G BNA 741B	96	
(cont.)	Q7585	QSTD289A					1ml				G BNA 796	1	
	Q7586	4734 BS	30g	2ml	Str.	H879		4734	10-13	SB286A	G		TCLBNA (+)
	Q7587	88158									G		
	Q7588	88158MS									G		
	Q7589	88158MSD									G		
	Q7590	88151R1	15g								G		
	Q7591	88154	30g								G		
	Q7592	88159									G		
	Q7593	88162									G		
	Q7594	89513			2X	I088		4736		SB286B	G		BN (+)
	Q7595	87380			50X	H786		4720		SB286A	G		BN (+)
	Q7596	87384			Str.				10-10	SB283	G		BNA (+)
	Q7597	87385			25X						G		
	Q7598	87386			10X						N.G. R.R. str.		
	Q7599	87421			Str.	H789		4726	10-12	SB285A	G		
	Q7600	85990			2X	H586		4676	9-29	SB272A	G		4NJGPAH
	Q7601	BIK											

Continued on Page

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82

PROJECT BNA 6 INJ Log

Notebook No. 10 +3

Continued From Page

DATE	DATA FILE	Sample #	Wt/Vol	F.V.	Dil	Job #	INJ Vol	QA	Ext. DATE	LPB	ALS	Comments	Sub List
10/12/	M2723	MDFT285					2.4						
	M2724	MSTD050					1.0						
	M2725	05-S										Range	
	M2726	120										o.k.	
	M2727	080										for 8270	
	M2728	020											

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Continued on Page

304282

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Notebook No. 6075

Continued From Page

DATE	DATA FILE	Sample #	Wt/vol	F.V.	Dil	Job #	INT vol	QA	Ext. DATE	LPB	A/S	Comments	Sub list
10-15	M2808	MDFT288					2W				96	G	
	M2809	MSTD288					1.0				1	G	
	M2810	SB286B	30g	2ml	Str.	—		4736		SB286B	2	G	BN.
	M2811	SB287B				—				SB287B	3	G	BN.
	M2812	4712BS				H768		4712		SB281	4	G	BNA
	M2813	4736BS				I088		4736		SB286B	5	G	BN.
	M2814	87288R1				H768		4712		SB281	6	G Conf. from M2794	TCLBNA (+)
	M2815	89921			2X	I154		4736		SB278B	7	G	PAH.
	M2816	89512			Str.	I088				SB286B	8	G	BN (+)
	M2817	89512MS									9	G	
	M2818	89512MSD									10	G	
	M2819	89516									11	G	
	M2820	89531									12	G	
	M2821	89532									13	G	
	M2822	89533			2X						14	G	
	M2823	89535			20X						15	G	
	M2824	87229			2X	H757		4698		SB281	16	N.G. out of clock	TCLBNA (+)
	M2825	89513			2X	I088		4736		SB286B	17	N.G. out of clock	BN (+)
	M2827	BIK									18		
	M2828										18		
	M2829										18		
	M2830										18		

Continued on Page

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87