

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: K.i  
 Lab File ID: k3466.d  
 Analysis Type: WATER

Injection Date: 02-JUN-2004 17:18  
 Lab Sample ID: HSL 0080  
 Method File: /chem/K.i/060204.b/8270C.m

COMPOUND	RRF/CONC	RRF/CONC	CCAL RRF	MIN RRF	%D	MAX %D	CURVE TYPE
212 n-docosane	0.478856	0.621342	0.62134	0.01	29.8	50.0	Average
112 Benzidine	80.0000	127.626	0.19080	0.01	59.5	50.0	WtLinear
9 Pyrene	1.11038	1.08444	1.0844	0.01	2.34	50.0	Average
31 Terphenyl-d14	0.675075	0.692830	0.69283	0.01	2.63	50.0	Average
117 Butyl benzyl phthalate	0.443260	0.455798	0.45580	0.01	2.83	50.0	Average
123 Bis(2-ethylhexyl) phthalate	0.606839	0.647084	0.64708	0.01	6.63	50.0	Average
119 3,3'-Dichlorobenzidine	0.381569	0.402404	0.40240	0.01	5.46	50.0	Average
120 Benzo(a)anthracene	1.03608	1.10111	1.1011	0.01	6.28	50.0	Average
122 Chrysene	0.987584	1.06893	1.0689	0.01	8.24	50.0	Average
124 Di-n-octyl phthalate	1.05664	1.11893	1.1189	0.01	5.90	20.0	Average
126 Benzo(b)fluoranthene	1.13677	1.16695	1.1670	0.01	2.65	50.0	Average
127 Benzo(k)fluoranthene	1.26557	1.33791	1.3379	0.01	5.72	50.0	Average
128 Benzo(a)pyrene	1.04218	1.07418	1.0742	0.01	3.07	20.0	Average
132 Dibenz(a,h)anthracene	0.976653	1.05972	1.0597	0.01	8.50	50.0	Average
131 Indeno(1,2,3-cd)pyrene	1.15875	1.24914	1.2491	0.01	7.80	50.0	Average
133 Benzo(g,h,i)perylene	0.983143	0.970094	0.97009	0.01	1.33	50.0	Average

*out comp*  
~~ATC~~ 6/3/04

STL-Denver

*JMP*  
*6/2/04*

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/K.i/060204.b/k3466.d  
 Lab Smp Id: HSL\_0080 Client Smp ID: HSL\_0080  
 Inj Date : 02-JUN-2004 17:18  
 Operator : petersonj Inst ID: K.i  
 Smp Info : HSL\_0080,BNA1509,P:052804,E:060404  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/K.i/060204.b/8270C.m  
 Meth Date : 02-Jun-2004 18:31 petersoj Quant Type: ISTD  
 Cal Date : 31-MAY-2004 17:57 Cal File: k3410.d  
 Als bottle: 3 Continuing Calibration Sample  
 Dil Factor: 1.00000 Compound Sublist: 1-HSL.sub  
 Integrator: HP RTE  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT		AMOUNTS					
	SI	SIG	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 22 1,4-Dichlorobenzene-d4	152		5.070	5.070	(1.000)	101139	40.0000	(H)
* 49 Naphthalene-d8	136		6.281	6.281	(1.000)	372641	40.0000	
* 83 Acenaphthene-d10	164		7.973	7.973	(1.000)	249760	40.0000	
* 117 Phenanthrene-d10	188		9.212	9.212	(1.000)	498914	40.0000	
* 142 Chrysene-d12	240		11.357	11.357	(1.000)	578954	40.0000	
* 151 Perylene-d12	264		12.861	12.861	(1.000)	517217	40.0000	
\$ 36 Nitrobenzene-d5	82		5.611	5.611	(1.101)	356702	80.0000	87.9936
\$ 70 2-Fluorobiphenyl	172		7.326	7.326	(0.919)	615114	80.0000	81.1872
\$ 133 Terphenyl-d14	244		10.446	10.446	(0.920)	802233	80.0000	82.1040
\$ 10 2-Fluorophenol	112		3.995	3.995	(0.784)	423013	120.000	127.238
\$ 14 Phenol-d5	99		4.753	4.753	(0.933)	526581	120.000	125.506
\$ 103 2,4,6-Tribromophenol	330		8.660	8.660	(0.940)	148397	120.000	134.122
\$ 163 1,2-Dichlorobenzene-d4	152		5.252	5.252	(1.031)	173708	80.0000	83.8630
\$ 162 2-Chlorophenol-d4	132		4.906	4.906	(0.963)	388118	120.000	126.063
5 Pyridine	79		2.984	2.984	(0.586)	346286	80.0000	87.0586

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ug/ml)	ON-COL (ug/ml)
4 N-Nitrosodimethylamine	74	2.967	2.967	(0.582)	192058	80.0000	77.1133
16 Aniline	93	4.812	4.812	(0.945)	374178	80.0000	115.288
15 Phenol	94	4.765	4.765	(0.935)	371829	80.0000	87.5501
18 Bis(2-chloroethyl) ether	93	4.841	4.841	(0.950)	300617	80.0000	78.5905
20 2-Chlorophenol	128	4.917	4.917	(0.965)	260795	80.0000	81.9938
21 1,3-Dichlorobenzene	146	5.041	5.041	(0.990)	309827	80.0000	82.9348
23 1,4-Dichlorobenzene	146	5.088	5.088	(0.999)	318756	80.0000	83.8566
24 Benzyl alcohol	108	5.199	5.199	(1.021)	183370	80.0000	83.6890
25 1,2-Dichlorobenzene	146	5.264	5.264	(1.033)	286569	80.0000	82.8129
26 2-Methylphenol	108	5.299	5.299	(1.040)	267515	80.0000	82.9202
27 1H-Indene	116	5.335	5.335	(1.047)	478272	80.0000	84.7281
28 2,2'-oxybis(1-chloropropane)	45	5.323	5.323	(1.045)	530704	80.0000	102.425
29 4-Methylphenol	108	5.429	5.429	(1.066)	268267	80.0000	80.3719
30 N-nitrosodi-n-propylamine	70	5.458	5.458	(1.072)	225411	80.0000	92.5146
32 Acetophenone	105	5.458	5.458	(1.072)	398076	80.0000	86.2367
33 Hexachloroethane	117	5.546	5.546	(1.089)	142515	80.0000	86.5507
37 Nitrobenzene	77	5.628	5.628	(1.105)	364647	80.0000	87.4494
40 Isophorone	82	5.828	5.828	(0.928)	604829	80.0000	88.5756
41 2-Nitrophenol	139	5.928	5.928	(0.944)	131573	80.0000	85.6756
42 2,4-Dimethylphenol	107	5.928	5.928	(0.944)	283506	80.0000	92.2960
43 Bis(2-chloroethoxy)methane	93	6.016	6.016	(0.958)	333352	80.0000	84.3349
45 Benzoic acid	122	6.028	6.028	(0.960)	152952	80.0000	77.5469
46 2,4-Dichlorophenol	162	6.145	6.145	(0.978)	232306	80.0000	86.2376
47 1,2,4-Trichlorobenzene	180	6.234	6.234	(0.992)	252482	80.0000	86.1172
50 Naphthalene	128	6.298	6.298	(1.003)	763969	80.0000	84.7730
51 4-Chloroaniline	127	6.363	6.363	(1.013)	298154	80.0000	84.7951
52 Hexachlorobutadiene	225	6.451	6.451	(1.027)	176977	80.0000	92.8581
59 4-Chloro-3-methylphenol	107	6.815	6.815	(1.085)	247992	80.0000	87.4415
62 2-Methylnaphthalene	142	6.968	6.968	(1.109)	473797	80.0000	87.1912
64 1-Methylnaphthalene	142	7.080	7.080	(1.127)	485643	80.0000	87.5420
63 Hexachlorocyclopentadiene	237	7.180	7.180	(0.900)	202910	80.0000	89.9944
67 2,4,6-Trichlorophenol	196	7.268	7.268	(0.912)	184390	80.0000	81.8464
68 2,4,5-Trichlorophenol	196	7.309	7.309	(0.917)	198642	80.0000	80.5764
71 2-Chloronaphthalene	162	7.444	7.444	(0.934)	500248	80.0000	77.6779
74 2-Nitroaniline	65	7.567	7.567	(0.949)	231702	80.0000	89.4574
76 Dimethyl phthalate	163	7.726	7.726	(0.969)	568710	80.0000	81.1443
79 2,6-Dinitrotoluene	165	7.808	7.808	(0.979)	121046	80.0000	79.1123
81 Acenaphthylene	152	7.843	7.843	(0.984)	819291	80.0000	80.0643
82 3-Nitroaniline	138	7.943	7.943	(0.996)	142027	80.0000	79.0774
84 Acenaphthene	153	8.002	8.002	(1.004)	482777	80.0000	81.8246
85 2,4-Dinitrophenol	184	8.031	8.031	(1.007)	86542	80.0000	81.0945
86 4-Nitrophenol	109	8.073	8.073	(1.013)	143641	80.0000	91.7520
87 2,4-Dinitrotoluene	165	8.161	8.161	(1.024)	164673	80.0000	80.9492
88 Dibenzofuran	168	8.137	8.137	(1.021)	690834	80.0000	81.0405
93 Diethyl phthalate	149	8.337	8.337	(1.046)	601576	80.0000	85.9565
95 4-Chlorophenyl phenyl ether	204	8.413	8.413	(1.055)	313041	80.0000	82.7910
96 Fluorene	166	8.437	8.437	(1.058)	609472	80.0000	83.3889

Compounds	QUANT SIG			REL RT	RESPONSE	AMOUNTS	
	MASS	RT	EXP RT			CAL-AMT (ug/ml)	ON-COL (ug/ml)
97 4-Nitroaniline	138	8.490	8.490	(1.065)	153170	80.0000	86.4936
99 4,6-Dinitro-2-methylphenol	198	8.507	8.507	(1.067)	132337	80.0000	91.8882
101 N-nitrosodiphenylamine	169	8.519	8.519	(1.069)	427016	80.0000	83.8919
102 Azobenzene	77	8.549	8.549	(1.072)	772075	80.0000	92.0731
108 4-Bromophenyl phenyl ether	248	8.819	8.819	(0.957)	182366	80.0000	80.9508
110 Hexachlorobenzene	284	8.960	8.960	(0.973)	200139	80.0000	83.4109
113 Pentachlorophenol	266	9.101	9.101	(0.988)	112397	80.0000	77.8802
118 Phenanthrene	178	9.230	9.230	(1.002)	944466	80.0000	82.1207
122 Anthracene	178	9.265	9.265	(1.006)	948917	80.0000	80.9066
123 Carbazole	167	9.389	9.389	(1.019)	840512	80.0000	82.1218
125 Di-n-butyl phthalate	149	9.630	9.630	(1.045)	1068796	80.0000	88.4590
130 Fluoranthene	202	10.182	10.182	(1.105)	1202534	80.0000	89.8324
131 Benzidine	184	10.258	10.258	(0.903)	220933	80.0000	127.626
132 Pyrene	202	10.370	10.370	(0.913)	1255678	80.0000	78.1308
137 Butyl benzyl phthalate	149	10.822	10.822	(0.953)	527772	80.0000	82.2628 (H)
140 3,3'-Dichlorobenzidine	252	11.298	11.298	(0.995)	465947	80.0000	84.3683 (H)
141 Benzo(a)anthracene	228	11.345	11.345	(0.999)	1274980	80.0000	85.0208 (H)
144 Chrysene	228	11.381	11.381	(1.002)	1237728	80.0000	86.5898 (H)
143 Bis(2-ethylhexyl) phthalate	149	11.263	11.263	(0.992)	749264	80.0000	85.3056 (H)
146 Di-n-octyl phthalate	149	11.786	11.786	(1.038)	1295621	80.0000	84.7166 (H)
147 Benzo(b)fluoranthene	252	12.397	12.397	(0.964)	1207134	80.0000	82.1237 (H)
148 Benzo(k)fluoranthene	252	12.426	12.426	(0.966)	1383984	80.0000	84.5730
150 Benzo(a)pyrene	252	12.791	12.791	(0.995)	1111173	80.0000	82.4567 (H)
155 Indeno(1,2,3-cd)pyrene	276	14.442	14.442	(1.123)	1292148	80.0000	86.2400 (H)
156 Dibenz(a,h)anthracene	278	14.436	14.436	(1.122)	1096210	80.0000	86.8042 (H)
157 Benzo(g,h,i)perylene	276	14.929	14.929	(1.161)	1003498	80.0000	78.9381 (H)
168 Methyl Styrene	118	4.835	4.835	(0.949)	314357	80.0000	86.8310
202 Alachlor	188	9.536	9.536	(1.035)	139396	80.0000	88.8968 (H)
204 Atrazine	200	8.954	8.954	(0.972)	16927	80.0000	77.0846
205 Caprolactam	55	6.686	6.686	(1.065)	180996	80.0000	111.781
207 2,3-Dichlorobenzeneamine	161	7.279	7.279	(0.913)	276436	80.0000	79.1075
206 Decane	43	4.882	4.882	(0.958)	425003	80.0000	110.269
213 n-Dodecane	43	6.198	6.198	(0.777)	413848	80.0000	96.8951
210 Tetradecane	43	7.338	7.338	(0.920)	378863	80.0000	113.774
209 Hexadecane	57	8.255	8.255	(1.035)	425719	80.0000	90.5213
208 n-Octadecane	85	9.007	9.007	(0.978)	164182	80.0000	84.1277
211 n-Eicosane	43	9.647	9.647	(1.210)	385009	80.0000	105.491
212 n-docosane	43	10.229	10.229	(1.283)	310373	80.0000	103.804

QC Flag Legend

H - Operator selected an alternate compound hit.



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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: K.i  
 Lab File ID: k3466.d  
 Lab Smp Id: HSL 0080  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: petersonj  
 Method File: /chem/K.i/060204.b/8270C.m  
 Misc Info:

Calibration Date: 02-JUN-2004  
 Calibration Time: 17:42  
 Client Smp ID: HSL\_0080  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	94553	47276	189106	101139	6.97
49 Naphthalene-d8	339435	169718	678870	372641	9.78
83 Acenaphthene-d10	212865	106432	425730	249760	17.33
117 Phenanthrene-d10	413425	206712	826850	498914	20.68
142 Chrysene-d12	466664	233332	933328	578954	24.06
151 Perylene-d12	399392	199696	798784	517217	29.50

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.07	4.57	5.57	5.07	0.00
49 Naphthalene-d8	6.28	5.78	6.78	6.28	0.00
83 Acenaphthene-d10	7.97	7.47	8.47	7.97	0.00
117 Phenanthrene-d10	9.21	8.71	9.71	9.21	0.00
142 Chrysene-d12	11.35	10.85	11.85	11.36	0.05
151 Perylene-d12	12.84	12.34	13.34	12.86	0.14

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.

Internal Standard  
Check Report

Instrument ID: K.i  
Lab File ID: k3466.d  
Analysis Type: WATER

Injection Date: 02-JUN-2004 17:18  
Lab Sample ID: HSL 0080  
Method File: /chem/K.i/060204.b/8270C.m

INTERNAL STANDARD	ICAL AREA	SAMP AREA	ICAL RT	SAMP RT	%R
1,4-Dichlorobenzene-d4	160879	101139	5.117	5.070	62.9
Naphthalene-d8	591401	372641	6.322	6.281	63.0
Acenaphthene-d10	354180	249760	8.008	7.973	70.5
Phenanthrene-d10	683575	498914	9.248	9.212	73.0
Chrysene-d12	669104	578954	11.392	11.357	86.5
Perylene-d12	582855	517217	12.920	12.861	88.7

Data File: /chem/K.i/060204,b/k3466.d

Date : 02-JUN-2004 17:18

Client ID: HSL\_0080

Sample Info: HSL\_0080,BNA1509,P:052804,E:060404

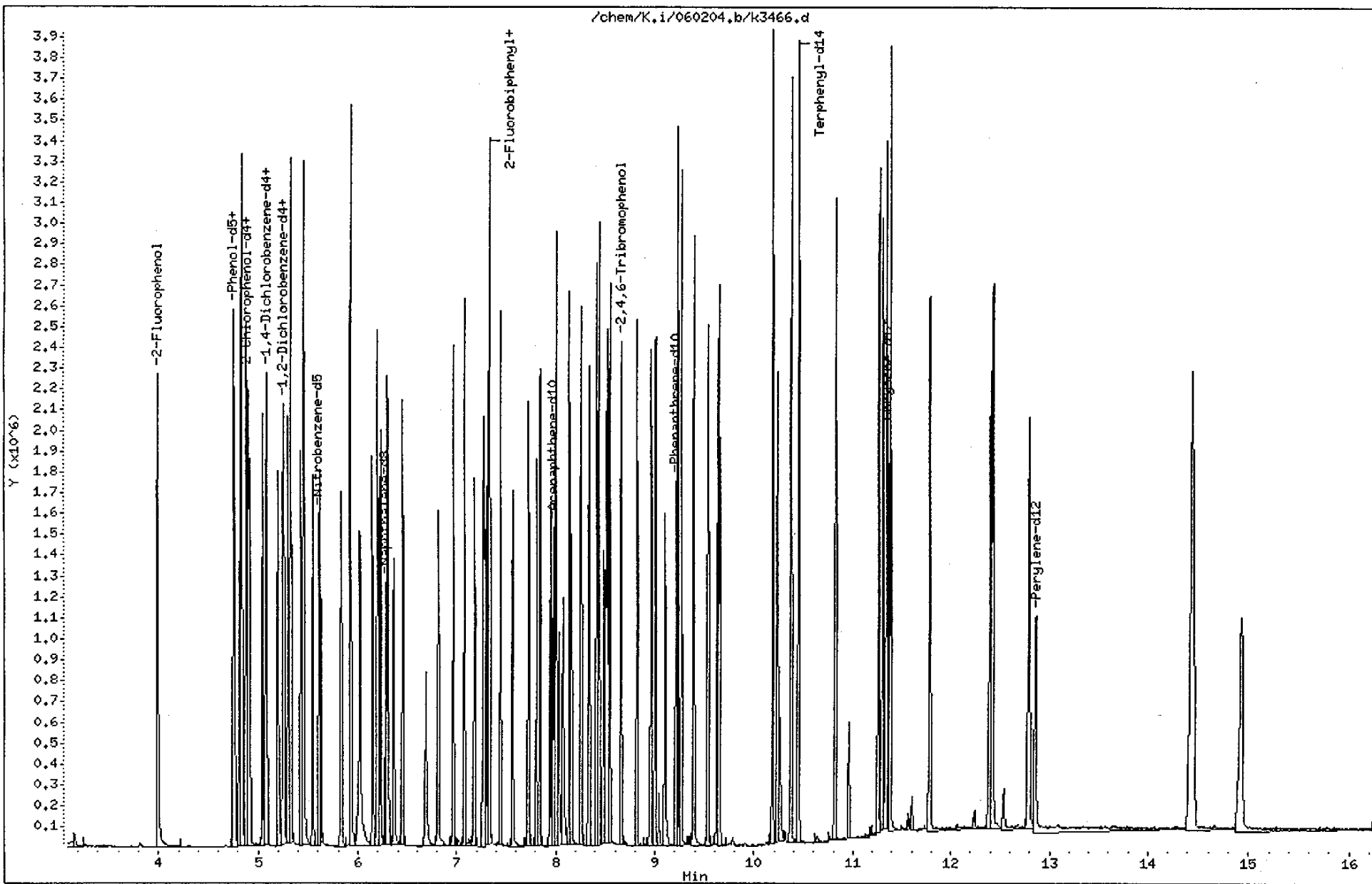
Volume Injected (uL): 0.5

Column phase: Rtx-5ms 30m 0.5um

Instrument: K.i

Operator: petersonj

Column diameter: 0.25



Report Date: 02-Jun-2004 18:31

### Calibration History

Method : /chem/K.i/060204.b/8270C.m  
Start Cal Date: 29-MAY-2004 08:39  
End Cal Date : 31-MAY-2004 17:57

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 5.00000		
29-MAY-2004 08:39	1-HSL	/chem/K.i/052904.b/k3366.d
Cal Level: 2 , Cal Amount: 10.00000		
31-MAY-2004 15:35	3-REF	/chem/K.i/053104.b/k3404.d
31-MAY-2004 12:49	4-CUST	/chem/K.i/053104.b/k3397.d
29-MAY-2004 12:13	2-AP9std	/chem/K.i/052904.b/k3375.d
29-MAY-2004 09:03	1-HSL	/chem/K.i/052904.b/k3367.d
Cal Level: 3 , Cal Amount: 20.00000		
31-MAY-2004 15:58	3-REF	/chem/K.i/053104.b/k3405.d
31-MAY-2004 13:12	4-CUST	/chem/K.i/053104.b/k3398.d
29-MAY-2004 12:37	2-AP9std	/chem/K.i/052904.b/k3376.d
29-MAY-2004 09:26	1-HSL	/chem/K.i/052904.b/k3368.d
Cal Level: 4 , Cal Amount: 50.00000		
31-MAY-2004 16:22	3-REF	/chem/K.i/053104.b/k3406.d
31-MAY-2004 12:25	4-CUST	/chem/K.i/053104.b/k3396.d
29-MAY-2004 13:00	2-AP9std	/chem/K.i/052904.b/k3377.d
29-MAY-2004 09:50	1-HSL	/chem/K.i/052904.b/k3369.d
Cal Level: 5 , Cal Amount: 80.00000		
31-MAY-2004 16:46	3-REF	/chem/K.i/053104.b/k3407.d
31-MAY-2004 13:36	4-CUST	/chem/K.i/053104.b/k3399.d
29-MAY-2004 13:24	2-AP9std	/chem/K.i/052904.b/k3378.d
29-MAY-2004 10:14	1-HSL	/chem/K.i/052904.b/k3370.d
Cal Level: 6 , Cal Amount: 120.00000		
31-MAY-2004 17:09	3-REF	/chem/K.i/053104.b/k3408.d
31-MAY-2004 14:00	4-CUST	/chem/K.i/053104.b/k3400.d
29-MAY-2004 13:48	2-AP9std	/chem/K.i/052904.b/k3379.d
29-MAY-2004 10:38	1-HSL	/chem/K.i/052904.b/k3371.d
Cal Level: 7 , Cal Amount: 160.00000		
STL Denver		

31-MAY-2004 17:33	3-REF	/chem/K.i/053104.b/k3409.d
31-MAY-2004 14:23	4-CUST	/chem/K.i/053104.b/k3401.d
29-MAY-2004 14:12	2-AP9std	/chem/K.i/052904.b/k3380.d
29-MAY-2004 11:01	1-HSL	/chem/K.i/052904.b/k3372.d

Cal Level: 8 , Cal Amount: 200.00000

31-MAY-2004 17:57	3-REF	/chem/K.i/053104.b/k3410.d
31-MAY-2004 14:47	4-CUST	/chem/K.i/053104.b/k3402.d
29-MAY-2004 14:36	2-AP9std	/chem/K.i/052904.b/k3381.d
29-MAY-2004 11:25	1-HSL	/chem/K.i/052904.b/k3373.d

Continuing Calibration  
 Ccal Level Mode: GLOBAL LEVEL 5

Ccal Level: 5 , Ccal Amount: 80.0000

02-JUN-2004 17:42	2-AP9std	/chem/K.i/060204.b/k3467.d ✓
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Ccal Level: 5 , Ccal Amount: 80.0000

02-JUN-2004 17:18	1-HSL	/chem/K.i/060204.b/k3466.d ✓
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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: K.i                      Injection Date: 02-JUN-2004 17:42  
 Lab File ID: k3467.d                  Init. Cal. Date(s): 29-MAY-2004 31-MAY-2004  
 Analysis Type: WATER                  Init. Cal. Times: 08:39 17:57  
 Lab Sample ID: AP9 0080                Quant Type: ISTD  
 Method: /chem/K.i/060204.b/8270C.m

COMPOUND	_____		CCAL	MIN	MAX		CURVE TYPE
	RRF / AMOUNT	RF80	RRF80	RRF	%D / %DRIFT	%D / %DRIFT	
7 2-Picoline	1.54423	1.62828	1.62828	0.010	5.4	50.0	Averaged
8 N-Nitrosomethylethylamine	0.70043	0.70997	0.70997	0.010	1.4	50.0	Averaged
9 Methyl methanesulfonate	0.45914	0.51473	0.51473	0.010	12.1	50.0	Averaged
11 N-Nitrosodiethylamine	0.64620	0.68348	0.68348	0.010	5.8	50.0	Averaged
13 Ethyl methanesulfonate	1.01936	1.14893	1.14893	0.010	12.7	50.0	Averaged
19 Pentachloroethane	0.47990	0.55853	0.55853	0.010	16.4	50.0	Averaged
31 N-Nitrosopyrrolidine	0.61737	0.68755	0.68755	0.010	11.4	50.0	Averaged
34 N-Nitrosomorpholine	0.26122	0.28363	0.28363	0.010	8.6	50.0	Averaged
35 o-Toluidine	1.90558	2.11563	2.11563	0.010	11.0	50.0	Averaged
39 N-Nitrosopiperidine	0.16680	0.18285	0.18285	0.010	9.6	50.0	Averaged
44 O,O,O-Triethyl phosphorothi	0.18318	0.21440	0.21440	0.010	17.0	50.0	Averaged
48 a,a-Dimethylphenethylamine	0.99561	1.17616	1.17616	0.010	18.1	50.0	Averaged
53 2,6-Dichlorophenol	0.26526	0.29282	0.29282	0.010	10.4	50.0	Averaged
54 Hexachloropropene	0.24424	0.31095	0.31095	0.010	27.3	50.0	Averaged
57 N-Nitrosodi-n-butylamine	0.22510	0.26708	0.26708	0.010	18.6	50.0	Averaged
58 p-Phenylenediamine	0.29579	0.33866	0.33866	0.010	14.5	50.0	Averaged
61 Safrole	0.24960	0.29090	0.29090	0.010	16.5	50.0	Averaged
65 1,2,4,5-Tetrachlorobenzene	0.32278	0.38219	0.38219	0.010	18.4	50.0	Averaged
66 Isosafrole (#1)	0.31289	0.33214	0.33214	0.010	6.2	50.0	Averaged
72 Isosafrole (#2)	0.34482	0.40589	0.40589	0.010	17.7	50.0	Averaged
73 1-Chloronaphthalene	0.94058	1.01228	1.01228	0.010	7.6	50.0	Averaged
75 1,4-Naphthoquinone	0.21073	0.24572	0.24572	0.010	16.6	50.0	Averaged
78 1,4-Dinitrobenzene	0.14530	0.16972	0.16972	0.010	16.8	50.0	Averaged
80 1,3-Dinitrobenzene	0.17038	0.19110	0.19110	0.010	12.2	50.0	Averaged
89 Pentachlorobenzene	0.45426	0.53127	0.53127	0.010	17.0	50.0	Averaged
90 1-Naphthylamine	0.90891	1.02769	1.02769	0.010	13.1	50.0	Averaged
91 2,3,4,6-Tetrachlorophenol	0.31055	0.37979	0.37979	0.010	22.3	50.0	Averaged
92 2-Naphthylamine	0.91008	1.09547	1.09547	0.010	20.4	50.0	Averaged
98 Thionazin	0.27217	0.33090	0.33090	0.010	21.6	50.0	Averaged
100 5-Nitro-o-toluidine	0.30556	0.35776	0.35776	0.010	17.1	50.0	Averaged
182 Diphenylamine	0.98818	1.13239	1.13239	0.010	14.6	50.0	Averaged
104 Sulfotepp	0.11518	0.13362	0.13362	0.010	16.0	50.0	Averaged
105 1,3,5-Trinitrobenzene	94.68617	80.00000	0.07463	0.010	18.4	50.0	Wt Linear
106 Diallate (#1)	0.32805	0.34908	0.34908	0.010	6.4	50.0	Averaged
107 Phorate	0.10371	0.11746	0.11746	0.010	13.3	50.0	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: K.i                      Injection Date: 02-JUN-2004 17:42  
 Lab File ID: k3467.d                  Init. Cal. Date(s): 29-MAY-2004 31-MAY-2004  
 Analysis Type: WATER                 Init. Cal. Times: 08:39 17:57  
 Lab Sample ID: AP9 0080              Quant Type: ISTD  
 Method: /chem/K.i/060204.b/8270C.m

COMPOUND	RF		CCAL		MIN		MAX		CURVE TYPE
	RRF / AMOUNT	RF80	RRF80	RRF	%D / %DRIFT	%D / %DRIFT			
109 Phenacetin	0.29702	0.38203	0.38203	0.010	28.6	50.0	Averaged		
111 Diallylate (#2)	0.20855	0.21065	0.21065	0.010	1.0	50.0	Averaged		
112 Dimethoate	0.23997	0.27785	0.27785	0.010	15.8	50.0	Averaged		
114 4-Aminobiphenyl	0.67751	0.74275	0.74275	0.010	9.6	50.0	Averaged		
115 Pentachloronitrobenzene	0.10262	0.12117	0.12117	0.010	18.1	50.0	Averaged		
116 Pronamide	0.27618	0.32146	0.32146	0.010	16.4	50.0	Averaged		
120 2-secbutyl-4,6-dinitropheno	89.98737	80.00000	0.18253	0.010	12.5	50.0	Wt Linear		
121 Disulfoton	0.32803	0.35525	0.35525	0.010	8.3	50.0	Averaged		
124 Methyl parathion	0.19241	0.22447	0.22447	0.010	16.7	50.0	Averaged		
126 Parathion	0.13487	0.15922	0.15922	0.010	18.1	50.0	Averaged		
127 4-Nitroquinoline-1-oxide	96.77581	80.00000	0.06645	0.010	21.0	50.0	Wt Linear		
128 Methapyrilene	0.24327	0.30294	0.30294	0.010	24.5	50.0	Averaged		
129 Isodrin	0.10665	0.11641	0.11641	0.010	9.2	50.0	Averaged		
134 Aramite (#1)	0.10736	0.12366	0.12366	0.010	15.2	50.0	Averaged		
135 Aramite (#2)	0.13629	0.15155	0.15155	0.010	11.2	50.0	Averaged		
136 p-Dimethylaminoazobenzene	0.22408	0.25743	0.25743	0.010	14.9	50.0	Averaged		
138 3,3'-Dimethylbenzidine	0.57562	0.68916	0.68916	0.010	19.7	50.0	Averaged		
139 2-Acetylaminofluorene	0.37283	0.46327	0.46327	0.010	24.3	50.0	Averaged		
149 7,12-Dimethylbenz(a)anthrac	0.51366	0.57569	0.57569	0.010	12.1	50.0	Averaged		
152 3-Methylcholanthrene	0.52793	0.61537	0.61537	0.010	16.6	50.0	Averaged		
153 Dibenz(a,j)acridine	0.75804	0.88445	0.88445	0.010	16.7	50.0	Averaged		
M 1 Total Isosafrole	0.33924	0.39298	0.39298	0.010	15.8	50.0	Averaged		
M 2 Total Diallylate	0.29536	0.31172	0.31172	0.010	5.5	50.0	Averaged		
M 3 Total Aramite	0.12279	0.13748	0.13748	0.010	12.0	50.0	Averaged		
165 Chlorobenzilate	0.25823	0.30357	0.30357	0.010	17.6	50.0	Averaged		
199 1,4-Dioxane	0.67773	0.67603	0.67603	0.010	-0.3	50.0	Averaged		
175 Biphenyl	1.17140	1.25948	1.25948	0.010	7.5	50.0	Averaged		

STL-Denver

*JMP*  
*6/2/04*

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/K.i/060204.b/k3467.d  
 Lab Smp Id: AP9\_0080 Client Smp ID: AP9\_0080  
 Inj Date : 02-JUN-2004 17:42  
 Operator : petersonj Inst ID: K.i  
 Smp Info : AP9\_0080,BNA1406,P:052804,E:060404  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/K.i/060204.b/8270C.m  
 Meth Date : 02-Jun-2004 18:32 peterso  
 Cal Date : 31-MAY-2004 17:57  
 Als bottle: 4  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 3.50  
 Processing Host: chemsv03

Quant Type: ISTD  
 Cal File: k3410.d  
 Continuing Calibration Sample  
 Compound Sublist: 2-AP9std.sub

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	AMOUNTS					
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)
* 22 1,4-Dichlorobenzene-d4	152		5.070	5.070	(1.000)	94553	40.0000	
* 49 Naphthalene-d8	136		6.281	6.281	(1.000)	339435	40.0000	
* 83 Acenaphthene-d10	164		7.973	7.973	(1.000)	212865	40.0000	
* 117 Phenanthrene-d10	188		9.213	9.213	(1.000)	413425	40.0000	
* 142 Chrysene-d12	240		11.351	11.351	(1.000)	466664	40.0000	
* 151 Perylene-d12	264		12.844	12.844	(1.000)	399392	40.0000	
7 2-Picoline	93		3.537	3.537	(0.698)	307918	80.0000	84.3546
8 N-Nitrosomethylethylamine	88		3.643	3.643	(0.718)	134259	80.0000	81.0894
9 Methyl methanesulfonate	80		3.883	3.883	(0.766)	97339	80.0000	89.6857
11 N-Nitrosodiethylamine	102		4.195	4.195	(0.827)	129251	80.0000	84.6156
13 Ethyl methanesulfonate	79		4.436	4.436	(0.875)	217269	80.0000	90.1684
19 Pentachloroethane	117		4.823	4.823	(0.951)	105621	80.0000	93.1083
31 N-Nitrosopyrrolidine	100		5.458	5.458	(1.076)	130019	80.0000	89.0930
34 N-Nitrosomorpholine	116		5.470	5.470	(1.079)	53637	80.0000	86.8652
35 o-Toluidine	106		5.499	5.499	(1.085)	400079	80.0000	88.8184



Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ug/ml)	ON-COL (ug/ml)
39 N-Nitrosopiperidine	114	5.769	5.769	(0.919)	124129	80.0000	87.6946
44 O,O,O-Triethyl phosphorothio	198	6.016	6.016	(0.958)	145553	80.0000	93.6365
48 a,a-Dimethylphenethylamine	58	6.134	6.134	(0.977)	798461	80.0000	94.5079(M)
53 2,6-Dichlorophenol	162	6.369	6.369	(1.014)	198785	80.0000	88.3099
54 Hexachloropropene	213	6.410	6.410	(1.021)	211097	80.0000	101.852
57 N-Nitrosodi-n-butylamine	84	6.668	6.668	(1.062)	181312	80.0000	94.9172
58 p-Phenylenediamine	108	6.698	6.698	(1.066)	229906	80.0000	91.5942
61 Safrole	162	6.868	6.868	(1.094)	197480	80.0000	93.2343
65 1,2,4,5-Tetrachlorobenzene	216	7.168	7.168	(1.141)	259458	80.0000	94.7249
66 Isosafrole (#1)	162	7.156	7.156	(0.898)	24745	14.0000	14.8610
72 Isosafrole (#2)	104	7.368	7.368	(0.924)	142560	66.0000	77.6886
73 1-Chloronaphthalene	162	7.479	7.479	(0.938)	430957	80.0000	86.0984
75 1,4-Naphthoquinone	158	7.609	7.609	(0.954)	104612	80.0000	93.2855
78 1,4-Dinitrobenzene	168	7.661	7.661	(0.961)	72254	80.0000	93.4449
80 1,3-Dinitrobenzene	168	7.767	7.767	(0.974)	81358	80.0000	89.7292
89 Pentachlorobenzene	250	8.155	8.155	(1.023)	226177	80.0000	93.5619
90 1-Naphthylamine	143	8.214	8.214	(1.030)	437519	80.0000	90.4552
91 2,3,4,6-Tetrachlorophenol	232	8.278	8.278	(1.038)	161686	80.0000	97.8358
92 2-Naphthylamine	143	8.278	8.278	(1.038)	466376	80.0000	96.2966
98 Thionazin	97	8.413	8.413	(1.055)	140873	80.0000	97.2610
100 5-Nitro-o-toluidine	152	8.466	8.466	(1.062)	152311	80.0000	93.6674
182 Diphenylamine	169	8.519	8.519	(1.069)	482094	80.0000	91.6754
104 Sulfotepp	97	8.690	8.690	(0.943)	110485	80.0000	92.8114
105 1,3,5-Trinitrobenzene	213	8.772	8.772	(0.952)	61710	80.0000	94.6862
106 Diallate (#1)	86	8.766	8.766	(0.952)	208542	57.8000	61.5067
107 Phorate	121	8.784	8.784	(0.953)	97125	80.0000	90.6057
109 Phenacetin	108	8.784	8.784	(0.953)	315882	80.0000	102.898
111 Diallate (#2)	86	8.837	8.837	(0.959)	49204	22.6000	22.8275
112 Dimethoate	87	8.942	8.942	(0.971)	229739	80.0000	92.6263
114 4-Aminobiphenyl	169	9.042	9.042	(0.982)	614139	80.0000	87.7027
115 Pentachloronitrobenzene	237	9.160	9.160	(0.994)	100190	80.0000	94.4584
116 Pronamide	173	9.083	9.083	(0.986)	265800	80.0000	93.1158
120 2-secbutyl-4,6-dinitropheno	211	9.218	9.218	(1.001)	150921	80.0000	89.9874
121 Disulfoton	88	9.195	9.195	(0.998)	293736	80.0000	86.6368
124 Methyl parathion	109	9.506	9.506	(1.032)	185602	80.0000	93.3284
126 Parathion	109	9.800	9.800	(1.064)	131651	80.0000	94.4448
127 4-Nitroquinoline-1-oxide	190	9.859	9.859	(1.070)	54944	80.0000	96.7758(H)
128 Methapyrilene	97	9.888	9.888	(1.073)	250488	80.0000	99.6233
129 Isodrin	193	10.076	10.076	(1.094)	96256	80.0000	87.3223(H)
134 Aramite (#1)	185	10.394	10.394	(0.916)	51937	36.0000	41.4663
135 Aramite (#2)	185	10.452	10.452	(0.921)	76381	43.2000	48.0367
136 p-Dimethylaminoazobenzene	120	10.564	10.564	(0.931)	240270	80.0000	91.9073
138 3,3'-Dimethylbenzidine	212	10.834	10.834	(0.954)	643209	80.0000	95.7794
139 2-Acetylaminofluorene	181	11.069	11.069	(0.975)	432384	80.0000	99.4060
149 7,12-Dimethylbenz(a)anthrac	256	12.379	12.379	(0.964)	459854	80.0000	89.6618(H)
152 3-Methylcholanthrene	268	13.231	13.231	(1.030)	491550	80.0000	93.2508(H)
153 Dibenz(a,j)acridine	279	14.072	14.072	(1.096)	706484	80.0000	93.3403

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	
-----	----	--	-----	-----	-----	-----	-----	
M 1 Total Isosafrole	162				167305	80.0000	92.6752	
M 2 Total Diallate	86				257746	80.0000	84.4308	
M 3 Total Aramite	185				128318	80.0000	89.5722	
165 Chlorobenzilate	251	10.587	10.587	(0.933)	283328	80.0000	94.0470 (H)	
199 1,4-Dioxane	88	2.691	2.691	(0.531)	127842	80.0000	79.7999	
175 Biphenyl	154	7.415	7.415	(0.930)	536197	80.0000	86.0150	

QC Flag Legend

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

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: K.i  
 Lab File ID: k3467.d  
 Lab Smp Id: AP9 0080  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: petersonj  
 Method File: /chem/K.i/060204.b/8270C.m  
 Misc Info:

Calibration Date: 02-JUN-2004  
 Calibration Time: 17:18  
 Client Smp ID: AP9\_0080  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	101139	50570	202278	94553	-6.51
49 Naphthalene-d8	372641	186320	745282	339435	-8.91
83 Acenaphthene-d10	249760	124880	499520	212865	-14.77
117 Phenanthrene-d10	498914	249457	997828	413425	-17.14
142 Chrysene-d12	578954	289477	1157908	466664	-19.40
151 Perylene-d12	517217	258608	1034434	399392	-22.78

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.07	4.57	5.57	5.07	0.00
49 Naphthalene-d8	6.28	5.78	6.78	6.28	0.00
83 Acenaphthene-d10	7.97	7.47	8.47	7.97	0.00
117 Phenanthrene-d10	9.21	8.71	9.71	9.21	0.00
142 Chrysene-d12	11.36	10.86	11.86	11.35	-0.05
151 Perylene-d12	12.86	12.36	13.36	12.84	-0.14

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.

Internal Standard  
Check Report

Instrument ID: K.i  
Lab File ID: k3467.d  
Analysis Type: WATER

Injection Date: 02-JUN-2004 17:42  
Lab Sample ID: AP9\_0080  
Method File: /chem/K.i/060204.b/8270C.m

INTERNAL STANDARD	ICAL AREA	SAMP AREA	ICAL RT	SAMP RT	%R
1,4-Dichlorobenzene-d4	147164	94553	5.117	5.070	64.3
Naphthalene-d8	530122	339435	6.322	6.281	64.0
Acenaphthene-d10	318542	212865	8.008	7.973	66.8
Phenanthrene-d10	562072	413425	9.242	9.213	73.6
Chrysene-d12	593593	466664	11.357	11.351	78.6
Perylene-d12	499739	399392	12.873	12.844	79.9

Data File: /chem/K.i/060204,b/k3467.d

Date : 02-JUN-2004 17:42

Client ID: AP9\_0080

Sample Info: AP9\_0080,BNA1406,P:052804,E:060404

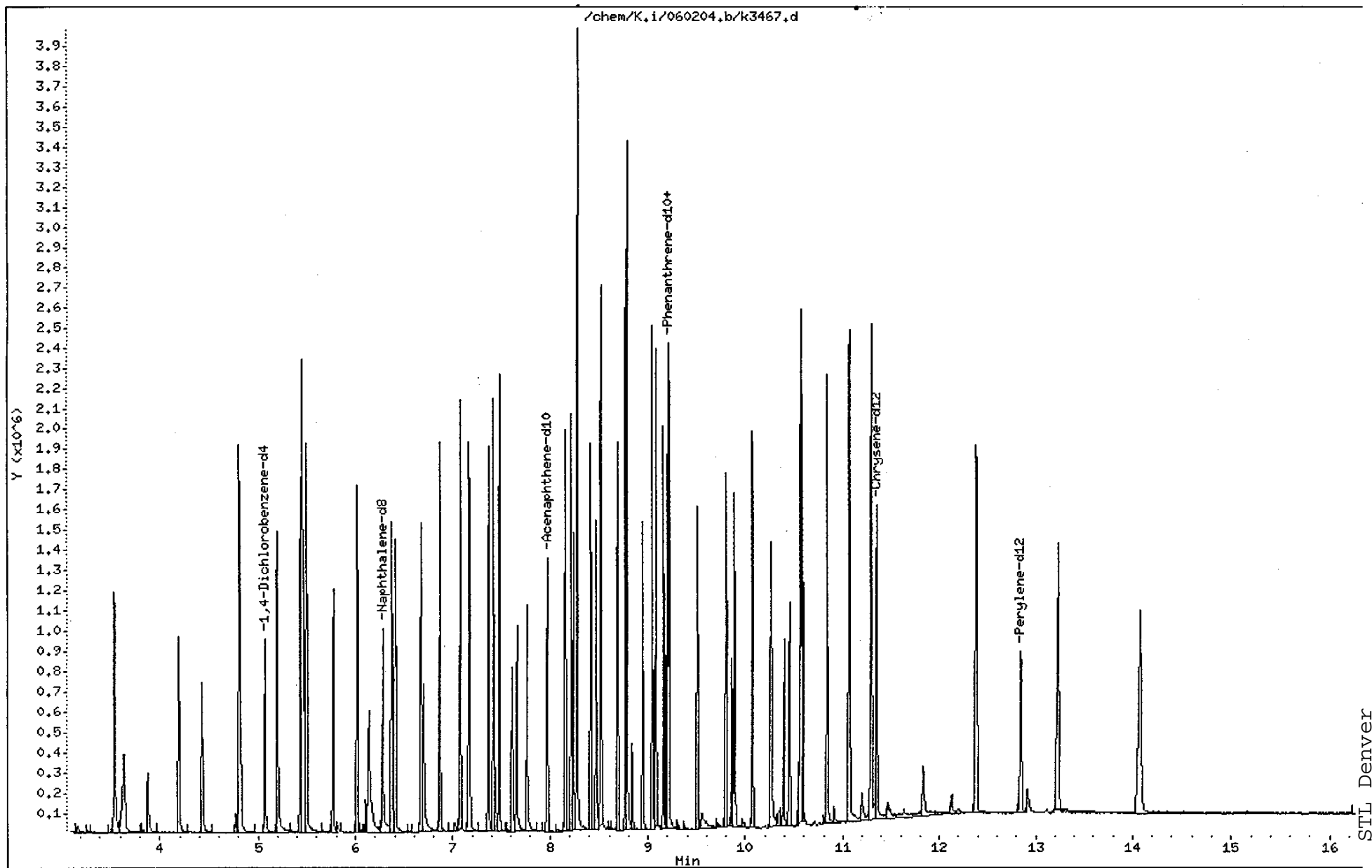
Volume Injected (uL): 0,5

Column phase: Rtx-5ms 30m 0.5um

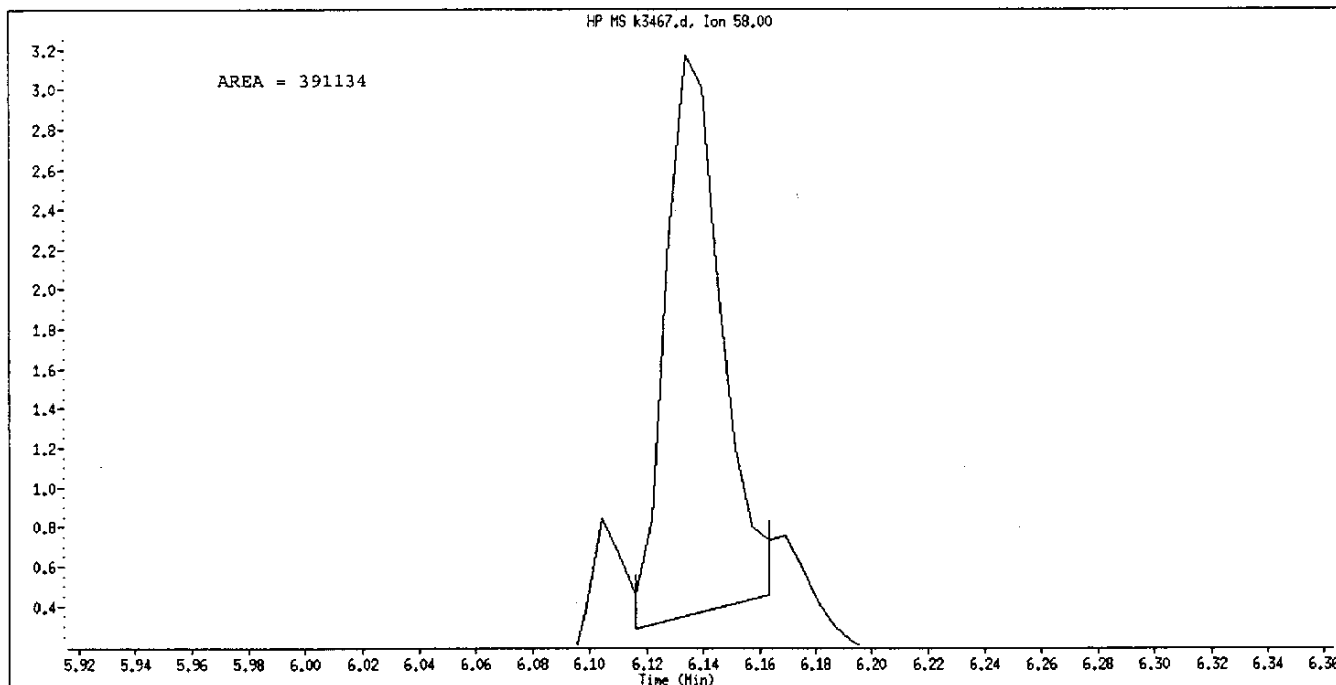
Instrument: K.i

Operator: petersonj

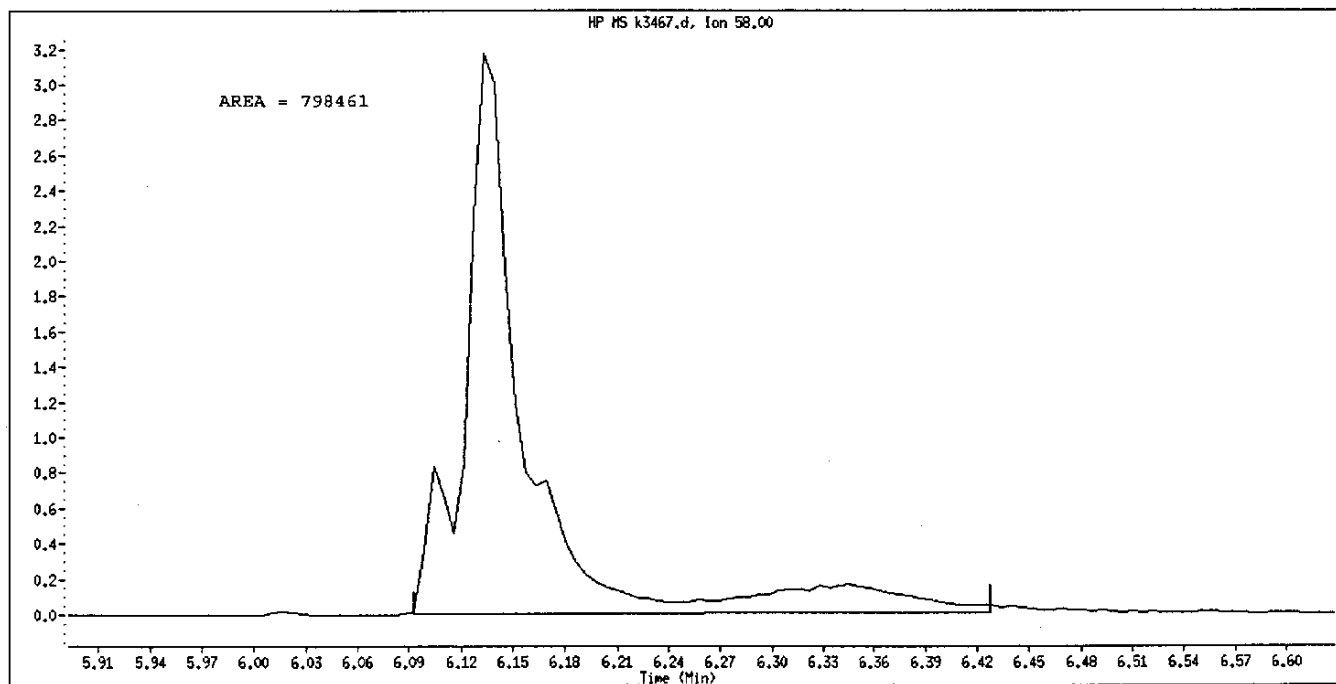
Column diameter: 0.25



Data File Name: k3467.d  
Inj. Date and Time: 02-JUN-2004 17:42  
Instrument ID: K.i  
Client ID: AP9\_0080  
Compound Name: a,a-Dimethylphenethylamine  
CAS #: 122-09-8  
Report Date: 06/02/2004



Original Integration



Manual Integration

Manually Integrated By: petersoj  
Manual Integration Reason: Split Peak

*jmp 6/2/04*  
*meu 06-03-04*

**GC/MS SEMIVOLATILE  
SAMPLE DATA**

**SEVERN**  
**TRENT**

**STL**

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*Handwritten signature*  
 6/3/04

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/K.i/060204.b/k3468.d  
 Lab Smp Id: GGXHGI1AA Client Smp ID: INTRA-LAB BLANK  
 Inj Date : 02-JUN-2004 18:07  
 Operator : petersonj Inst ID: K.i  
 Smp Info : GGXHGI1AA,,D4E240000-234  
 Misc Info : 4145234  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/K.i/060204.b/8270C.m  
 Meth Date : 03-Jun-2004 11:53 peterso Quant Type: ISTD  
 Cal Date : 31-MAY-2004 17:57 Cal File: k3410.d  
 Als bottle: 5 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: HSL+AP9.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	CONCENTRATIONS				
			ON-COLUMN	FINAL			
	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	( ug/L)
* 22 1,4-Dichlorobenzene-d4	152	5.070	5.070	(1.000)	84134	40.0000	
* 49 Naphthalene-d8	136	6.281	6.281	(1.000)	318657	40.0000	
* 83 Acenaphthene-d10	164	7.973	7.973	(1.000)	194223	40.0000	
* 117 Phenanthrene-d10	188	9.213	9.212	(1.000)	353021	40.0000	
* 142 Chrysene-d12	240	11.363	11.357	(1.000)	414028	40.0000	
* 151 Perylene-d12	264	12.861	12.861	(1.000)	353723	40.0000	
\$ 36 Nitrobenzene-d5	82	5.605	5.611	(1.105)	302743	89.7773	89.7773
\$ 70 2-Fluorobiphenyl	172	7.327	7.326	(0.919)	347939	59.0551	59.0550
\$ 133 Terphenyl-d14	244	10.452	10.446	(0.920)	550410	78.7707	78.7707
\$ 10 2-Fluorophenol	112	3.995	3.995	(0.788)	332711	120.303	120.303
\$ 14 Phenol-d5	99	4.747	4.753	(0.936)	450575	129.097	129.096
\$ 103 2,4,6-Tribromophenol	330	8.660	8.660	(0.940)	96682	123.494	123.494
\$ 163 1,2-Dichlorobenzene-d4	152	5.247	5.252	(1.035)	93578	54.3090	54.3090
\$ 162 2-Chlorophenol-d4	132	4.900	4.906	(0.966)	327947	128.049	128.049
4 N-Nitrosodimethylamine	74	Compound Not Detected.					



Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
5 Pyridine	79						
7 2-Picoline	93						
8 N-Nitrosomethylethylamine	88						
9 Methyl methanesulfonate	80						
11 N-Nitrosodiethylamine	102						
13 Ethyl methanesulfonate	79						
15 Phenol	94						
16 Aniline	93						
19 Pentachloroethane	117						
18 Bis(2-chloroethyl) ether	93						
20 2-Chlorophenol	128						
21 1,3-Dichlorobenzene	146						
23 1,4-Dichlorobenzene	146						
25 1,2-Dichlorobenzene	146						
24 Benzyl alcohol	108						
26 2-Methylphenol	108						
28 2,2'-oxybis(1-chloropropane)	45						
29 4-Methylphenol	108						
31 N-Nitrosopyrrolidine	100						
32 Acetophenone	105						
34 N-Nitrosomorpholine	116						
35 o-Toluidine	106						
30 N-nitrosodi-n-propylamine	70						
33 Hexachloroethane	117						
37 Nitrobenzene	77						
39 N-Nitrosopiperidine	114						
40 Isophorone	82						
41 2-Nitrophenol	139						
44 O,O,O-Triethyl phosphorothio	198						
42 2,4-Dimethylphenol	107						
43 Bis(2-chloroethoxy)methane	93						
45 Benzoic acid	122						
48 a,a-Dimethylphenethylamine	58						
46 2,4-Dichlorophenol	162						
47 1,2,4-Trichlorobenzene	180						
53 2,6-Dichlorophenol	162						
54 Hexachloropropene	213						
50 Naphthalene	128						
51 4-Chloroaniline	127						
52 Hexachlorobutadiene	225						
57 N-Nitrosodi-n-butylamine	84						
58 p-Phenylenediamine	108						
61 Safrole	162						
59 4-Chloro-3-methylphenol	107						
62 2-Methylnaphthalene	142						
64 1-Methylnaphthalene	142						
65 1,2,4,5-Tetrachlorobenzene	216						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
=====	====	==	=====	=====	=====	=====	=====
63 Hexachlorocyclopentadiene	237				Compound Not Detected.		
66 Isosafrole (#1)	162				Compound Not Detected.		
72 Isosafrole (#2)	104				Compound Not Detected.		
73 1-Chloronaphthalene	162				Compound Not Detected.		
71 2-Chloronaphthalene	162				Compound Not Detected.		
67 2,4,6-Trichlorophenol	196				Compound Not Detected.		
68 2,4,5-Trichlorophenol	196				Compound Not Detected.		
75 1,4-Naphthoquinone	158				Compound Not Detected.		
74 2-Nitroaniline	65				Compound Not Detected.		
78 1,4-Dinitrobenzene	168				Compound Not Detected.		
80 1,3-Dinitrobenzene	168				Compound Not Detected.		
76 Dimethyl phthalate	163				Compound Not Detected.		
79 2,6-Dinitrotoluene	165				Compound Not Detected.		
81 Acenaphthylene	152				Compound Not Detected.		
82 3-Nitroaniline	138				Compound Not Detected.		
84 Acenaphthene	153				Compound Not Detected.		
89 Pentachlorobenzene	250				Compound Not Detected.		
85 2,4-Dinitrophenol	184				Compound Not Detected.		
86 4-Nitrophenol	109				Compound Not Detected.		
87 2,4-Dinitrotoluene	165				Compound Not Detected.		
88 Dibenzofuran	168				Compound Not Detected.		
90 1-Naphthylamine	143				Compound Not Detected.		
91 2,3,4,6-Tetrachlorophenol	232				Compound Not Detected.		
92 2-Naphthylamine	143				Compound Not Detected.		
98 Thionazin	97				Compound Not Detected.		
93 Diethyl phthalate	149				Compound Not Detected.		
100 5-Nitro-o-toluidine	152				Compound Not Detected.		
96 Fluorene	166				Compound Not Detected.		
95 4-Chlorophenyl phenyl ether	204				Compound Not Detected.		
97 4-Nitroaniline	138				Compound Not Detected.		
99 4,6-Dinitro-2-methylphenol	198				Compound Not Detected.		
101 N-nitrosodiphenylamine	169				Compound Not Detected.		
182 Diphenylamine	169				Compound Not Detected.		
102 Azobenzene	77				Compound Not Detected.		
104 Sulfotepp	97				Compound Not Detected.		
105 1,3,5-Trinitrobenzene	213				Compound Not Detected.		
107 Phorate	121				Compound Not Detected.		
109 Phenacetin	108				Compound Not Detected.		
106 Diallate (#1)	86				Compound Not Detected.		
111 Diallate (#2)	86				Compound Not Detected.		
108 4-Bromophenyl phenyl ether	248				Compound Not Detected.		
110 Hexachlorobenzene	284				Compound Not Detected.		
112 Dimethoate	87				Compound Not Detected.		
114 4-Aminobiphenyl	169				Compound Not Detected.		
115 Pentachloronitrobenzene	237				Compound Not Detected.		
116 Pronamide	173				Compound Not Detected.		
113 Pentachlorophenol	266				Compound Not Detected.		

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/L)
120 2-secbutyl-4,6-dinitrophenol	211							
121 Disulfoton	88							
118 Phenanthrene	178							
122 Anthracene	178							
123 Carbazole	167							
124 Methyl parathion	109							
125 Di-n-butyl phthalate	149							
126 Parathion	109							
127 4-Nitroquinoline-1-oxide	190							
128 Methapyrilene	97							
129 Isodrin	193							
130 Fluoranthene	202							
131 Benzidine	184							
132 Pyrene	202							
134 Aramite (#1)	185							
135 Aramite (#2)	185							
136 p-Dimethylaminoazobenzene	120							
138 3,3'-Dimethylbenzidine	212							
137 Butyl benzyl phthalate	149							
139 2-Acetylaminofluorene	181							
140 3,3'-Dichlorobenzidine	252							
143 Bis(2-ethylhexyl) phthalate	149							
141 Benzo(a)anthracene	228							
144 Chrysene	228							
146 Di-n-octyl phthalate	149							
149 7,12-Dimethylbenz(a)anthracene	256							
147 Benzo(b)fluoranthene	252							
148 Benzo(k)fluoranthene	252							
150 Benzo(a)pyrene	252							
152 3-Methylcholanthrene	268							
153 Dibenz(a,j)acridine	279							
155 Indeno(1,2,3-cd)pyrene	276							
156 Dibenz(a,h)anthracene	278							
157 Benzo(g,h,i)perylene	276							
M 1 Total Isosafrole	162							
M 2 Total Diallate	86							
M 3 Total Aramite	185							
165 Chlorobenzilate	251							
168 Methyl Styrene	118							
27 1H-Indene	116							
199 1,4-Dioxane	88							
175 Biphenyl	154							
183 Hexachlorophene	196							
204 Atrazine	200							
205 Caprolactam	55							

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: K.i  
 Lab File ID: k3468.d  
 Lab Smp Id: GGXHGIAA  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: petersonj  
 Method File: /chem/K.i/060204.b/8270C.m  
 Misc Info: 4145234

Calibration Date: 02-JUN-2004  
 Calibration Time: 17:18  
 Client Smp ID: INTRA-LAB BLANK  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	101139	50570	202278	84134	-16.81
49 Naphthalene-d8	372641	186320	745282	318657	-14.49
83 Acenaphthene-d10	249760	124880	499520	194223	-22.24
117 Phenanthrene-d10	498914	249457	997828	353021	-29.24
142 Chrysene-d12	578954	289477	1157908	414028	-28.49
151 Perylene-d12	517217	258608	1034434	353723	-31.61

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.07	4.57	5.57	5.07	0.00
49 Naphthalene-d8	6.28	5.78	6.78	6.28	0.00
83 Acenaphthene-d10	7.97	7.47	8.47	7.97	0.00
117 Phenanthrene-d10	9.21	8.71	9.71	9.21	0.00
142 Chrysene-d12	11.36	10.86	11.86	11.36	0.05
151 Perylene-d12	12.86	12.36	13.36	12.86	0.00

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.

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RECOVERY REPORT

Client Name: Client SDG: D4E240000  
Sample Matrix: LIQUID Fraction: SV  
Lab Smp Id: GGXHG1AA Client Smp ID: INTRA-LAB BLANK  
Level: LOW Operator: petersonj  
Data Type: MS DATA SampleType: BLANK  
SpikeList File: 9HSOIL.spk Quant Type: ISTD  
Sublist File: HSL+AP9.sub  
Method File: /chem/K.i/060204.b/8270C.m  
Misc Info: 4145234

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	100.000	89.7773	89.78	53-107
\$ 70 2-Fluorobiphenyl	100.000	59.0550	59.06	31-105
\$ 133 Terphenyl-d14	100.000	78.7707	78.77	21-125
\$ 10 2-Fluorophenol	150.000	120.303	80.20	32-116
\$ 14 Phenol-d5	150.000	129.096	86.06	40-111
\$ 103 2,4,6-Tribromophen	150.000	123.494	82.33	42-122
\$ 163 1,2-Dichlorobenzen	100.000	54.3090	54.31	20-130
\$ 162 2-Chlorophenol-d4	150.000	128.049	85.37	20-130

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TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:  
Lab Smp Id: GGXHG1AA  
Operator : petersonj  
Sample Location: Generic Lab QC  
Sample Matrix: WATER  
Analysis Type: SV

Client SDG: D4E240000  
Client Smp ID: INTRA-LAB BLANK  
Sample Date: 21-MAY-2004  
Sample Point:  
Date Received: 21-MAY-2004 00:00  
Level: LOW

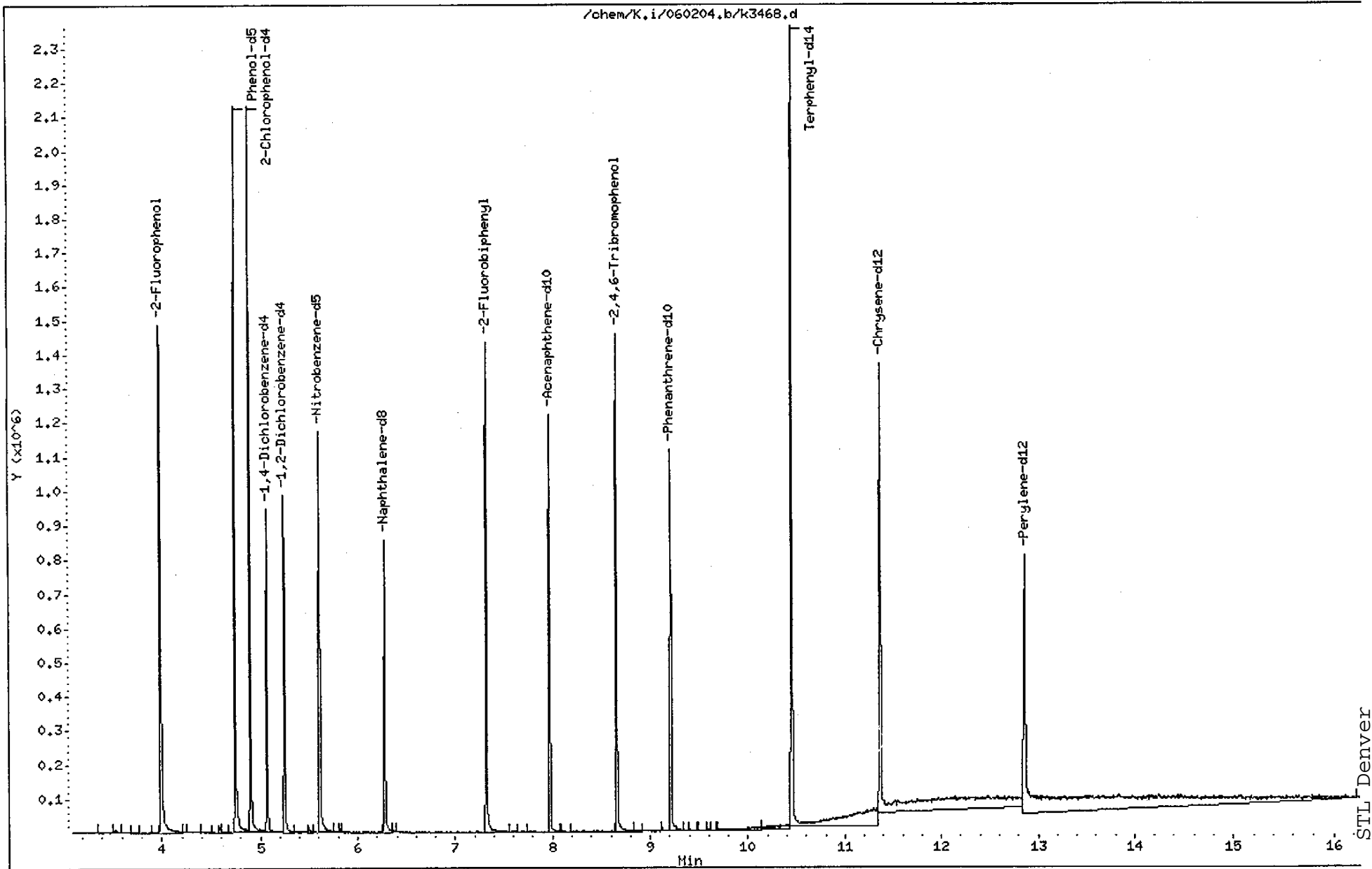
Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	2.456	6.21334	J
2.	Unknown	10.123	4.30203	J

Data File: /chem/K.i/060204.b/k3468.d  
Date : 02-JUN-2004 18:07  
Client ID: INTRA-LAB BLANK  
Sample Info: GGXHG1AA,,D4E240000-234  
Volume Injected (uL): 0,5  
Column phase: Rtx-5ms 30m 0.5um

Instrument: K.i  
Operator: petersonj  
Column diameter: 0.25



Date : 02-JUN-2004 18:07

Client ID: INTRA-LAB BLANK

Instrument: K.i

Sample Info: GCKHG1AA,,D4E240000-234

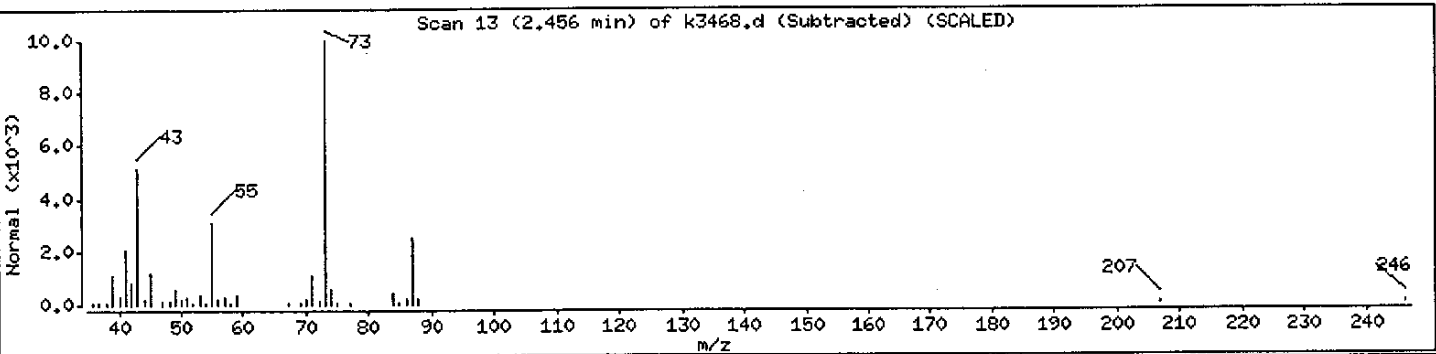
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0





Date : 02-JUN-2004 18:07

Client ID: INTRA-LAB BLANK

Instrument: K.i

Sample Info: GGXHG1AA,,D4E240000-234

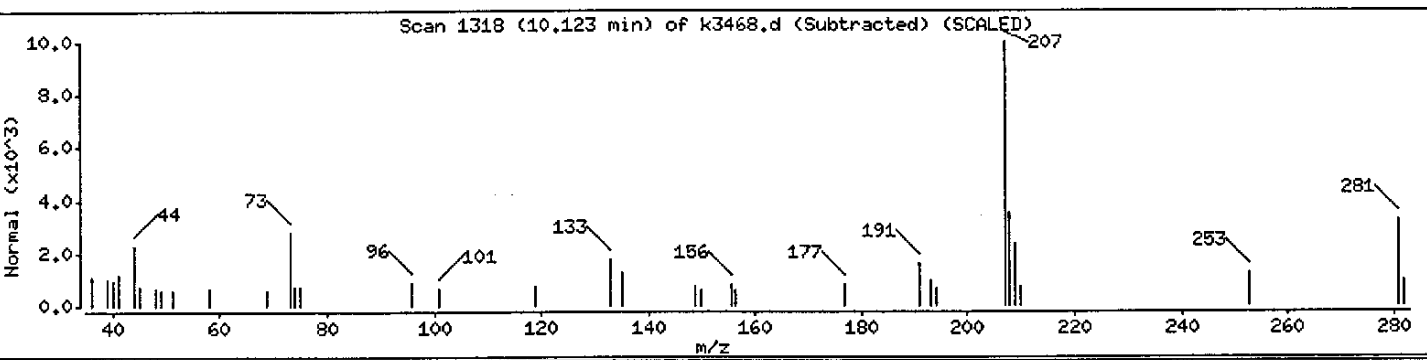
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



LCSD Report

LCS SAMPLE

Data File : /chem/K.i/060204.b/k3469.d  
 Samp Info : GGXHG1AC,,D4E240000-234  
 Inj Date : 02-JUN-2004 18:31  
 Sample Amt : 1000mL

LCSD SAMPLE

Data File : /chem/K.i/060204.b/k3470.d  
 Samp Info : GGXHG1AD,,D4E240000-234  
 Inj Date : 02-JUN-2004 18:55  
 Sample Amt : 1000mL

Sample #	Sample #	Sample #	Sample #	Sample #
=====	=====	=====	=====	=====
=====	=====	=====	=====	=====
=====	=====	=====	=====	=====
=====	=====	=====	=====	=====

	Concentration			%Recovery		RPD			
	Spiked	LCS	Measured LCSD	Avg.	Meas.	Min	Max	Meas.	Max
4-Nitrophenol	150.0	121.0	117.8	119.4	79.6	43	118	3	40
Pyrene	100.0	78.8	72.7	75.8	75.8	51	103	8	40
Pentachlorophenol	150.0	135.1	135.3	135.2	90.1	48	114	0	40
2,4-Dinitrotoluene	100.0	85.2	81.4	83.3	83.3	57	113	5	40
Phenol	150.0	126.0	129.0	127.5	85.0	56	106	2	40
2-Chlorophenol	150.0	123.2	126.4	124.8	83.2	59	105	3	40
1,4-Dichlorobenzene	100.0	59.1	62.5	60.8	60.8	31	98	5	40
N-nitrosodi-n-propylamine	100.0	89.8	87.4	88.6	88.6	51	99	3	40
1,2,4-Trichlorobenzene	100.0	65.4	70.3	67.9	67.9	36	99	7	40
4-Chloro-3-methylphenol	150.0	126.2	125.5	125.9	83.9	59	106	1	40
Acenaphthene	100.0	80.8	80.4	80.6	80.6	55	97	1	30

100.0 Percent of recoveries are within control limits.

100.0 Percent of RPD values are within control limits.

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*JMP*  
*6/3/04*

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/K.i/060204.b/k3469.d  
 Lab Smp Id: GGXHGIAC Client Smp ID: INTRA-LAB CHECK  
 Inj Date : 02-JUN-2004 18:31  
 Operator : petersonj Inst ID: K.i  
 Smp Info : GGXHGIAC,,D4E240000-234  
 Misc Info : 4145234  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/K.i/060204.b/8270C.m  
 Meth Date : 03-Jun-2004 11:53 peterso Quant Type: ISTD  
 Cal Date : 31-MAY-2004 17:57 Cal File: k3410.d  
 Als bottle: 6 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: DCS.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/ml)	FINAL (ug/L)
* 22 1,4-Dichlorobenzene-d4	152			5.070	5.070	(1.000)	89721	40.0000	
* 49 Naphthalene-d8	136			6.281	6.281	(1.000)	335870	40.0000	
* 83 Acenaphthene-d10	164			7.973	7.973	(1.000)	206521	40.0000	
* 117 Phenanthrene-d10	188			9.213	9.212	(1.000)	398652	40.0000	
* 142 Chrysene-d12	240			11.345	11.357	(1.000)	443373	40.0000	
* 151 Perylene-d12	264			12.838	12.861	(1.000)	381822	40.0000	
\$ 36 Nitrobenzene-d5	82			5.605	5.611	(1.105)	311805	86.7068	86.7068
\$ 70 2-Fluorobiphenyl	172			7.326	7.326	(0.919)	440520	70.3163	70.3163
\$ 133 Terphenyl-d14	244			10.441	10.446	(0.920)	633202	84.6216	84.6216
\$ 10 2-Fluorophenol	112			3.995	3.995	(0.788)	355640	120.586	120.586
\$ 14 Phenol-d5	99			4.747	4.753	(0.936)	458600	123.214	123.214
\$ 103 2,4,6-Tribromophenol	330			8.660	8.660	(0.940)	119631	135.316	135.316
\$ 163 1,2-Dichlorobenzene-d4	152			5.246	5.252	(1.035)	118517	64.4994	64.4994
\$ 162 2-Chlorophenol-d4	132			4.900	4.906	(0.966)	344023	125.961	125.961
15 Phenol	94			4.759	4.765	(0.939)	474824	126.029	126.029

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/L)
20 2-Chlorophenol	128	4.917	4.917	(0.970)	347546	123.174	123.174
23 1,4-Dichlorobenzene	146	5.088	5.088	(1.003)	199364	59.1222	59.1222
30 N-nitrosodi-n-propylamine	70	5.452	5.458	(1.075)	194017	89.7634	89.7634
47 1,2,4-Trichlorobenzene	180	6.228	6.234	(0.992)	172867	65.4170	65.4170
59 4-Chloro-3-methylphenol	107	6.804	6.815	(1.083)	322689	126.236	126.236
84 Acenaphthene	153	8.002	8.002	(1.004)	394237	80.8078	80.8078
86 4-Nitrophenol	109	8.073	8.073	(1.013)	156652	121.013	121.013
87 2,4-Dinitrotoluene	165	8.155	8.161	(1.023)	143250	85.1615	85.1615
113 Pentachlorophenol	266	9.101	9.101	(0.988)	155821	135.123	135.123
132 Pyrene	202	10.364	10.370	(0.914)	969981	78.8102	78.8102

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: K.i  
 Lab File ID: k3469.d  
 Lab Smp Id: GGXHG1AC  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: petersonj  
 Method File: /chem/K.i/060204.b/8270C.m  
 Misc Info: 4145234

Calibration Date: 02-JUN-2004  
 Calibration Time: 17:18  
 Client Smp ID: INTRA-LAB CHECK  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	101139	50570	202278	89721	-11.29
49 Naphthalene-d8	372641	186320	745282	335870	-9.87
83 Acenaphthene-d10	249760	124880	499520	206521	-17.31
117 Phenanthrene-d10	498914	249457	997828	398652	-20.10
142 Chrysene-d12	578954	289477	1157908	443373	-23.42
151 Perylene-d12	517217	258608	1034434	381822	-26.18

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.07	4.57	5.57	5.07	0.00
49 Naphthalene-d8	6.28	5.78	6.78	6.28	0.00
83 Acenaphthene-d10	7.97	7.47	8.47	7.97	0.00
117 Phenanthrene-d10	9.21	8.71	9.71	9.21	0.00
142 Chrysene-d12	11.36	10.86	11.86	11.35	-0.10
151 Perylene-d12	12.86	12.36	13.36	12.84	-0.18

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.

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RECOVERY REPORT

Client Name:  
 Sample Matrix: LIQUID  
 Lab Smp Id: GGXHGIAC  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: 02H2O-DCS.spk  
 Sublist File: DCS.sub  
 Method File: /chem/K.i/060204.b/8270C.m  
 Misc Info: 4145234

Client SDG: D4E240000  
 Fraction: SV  
 Client Smp ID: INTRA-LAB CHECK  
 Operator: petersonj  
 SampleType: LCS  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
15 Phenol	150.000	126.029	84.02	56-106
20 2-Chlorophenol	150.000	123.174	82.12	59-105
23 1,4-Dichlorobenzen	100.000	59.1222	59.12	31-98
30 N-nitrosodi-n-prop	100.000	89.7634	89.76	51-99
47 1,2,4-Trichloroben	100.000	65.4170	65.42	36-99
59 4-Chloro-3-methylp	150.000	126.236	84.16	59-106
84 Acenaphthene	100.000	80.8078	80.81	55-97
86 4-Nitrophenol	150.000	121.013	80.68	43-118
87 2,4-Dinitrotoluene	100.000	85.1615	85.16	57-113
113 Pentachlorophenol	150.000	135.123	90.08	48-114
132 Pyrene	100.000	78.8102	78.81	51-103

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	100.000	86.7068	86.71	58-108
\$ 70 2-Fluorobiphenyl	100.000	70.3163	70.32	53-97
\$ 133 Terphenyl-d14	100.000	84.6216	84.62	55-109
\$ 10 2-Fluorophenol	150.000	120.586	80.39	54-105
\$ 14 Phenol-d5	150.000	123.214	82.14	55-106
\$ 103 2,4,6-Tribromophen	150.000	135.316	90.21	62-113
\$ 163 1,2-Dichlorobenzen	100.000	64.4994	64.50	20-130
\$ 162 2-Chlorophenol-d4	150.000	125.961	83.97	20-130

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TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:  
Lab Smp Id: GGXHGIAC  
Operator : petersonj  
Sample Location: Generic Lab QC  
Sample Matrix: WATER  
Analysis Type: SV

Client SDG: D4E240000  
Client Smp ID: INTRA-LAB CHECK  
Sample Date: 21-MAY-2004  
Sample Point:  
Date Received: 21-MAY-2004 00:00  
Level: LOW

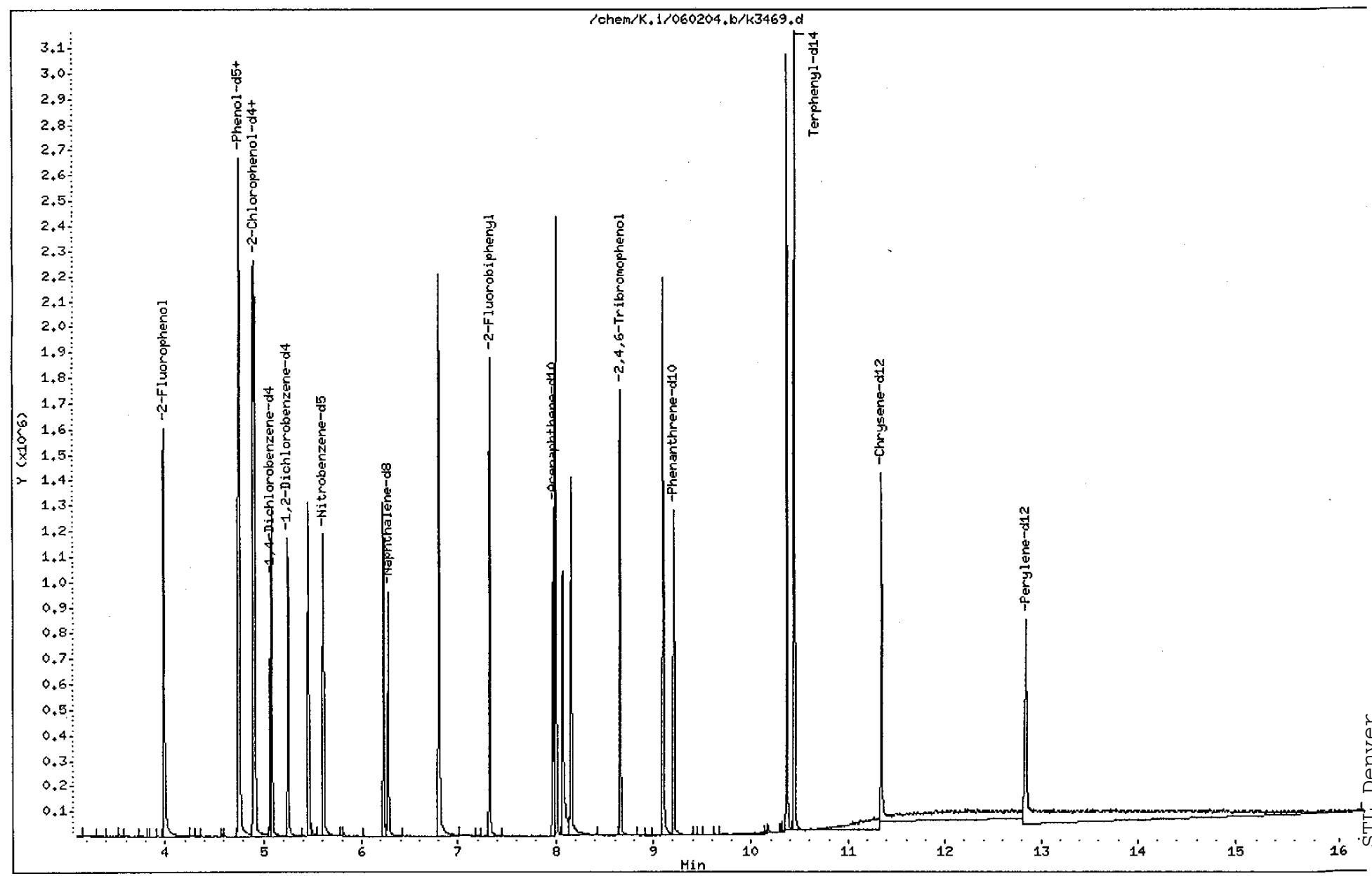
Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

Data File: /chem/K.i/060204,b/k3469,d  
Date : 02-JUN-2004 18:31  
Client ID; INTRA-LAB CHECK  
Sample Info: GGXHG1AC,,D4E240000-234  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

Instrument: K.i  
Operator: petersonj  
Column diameter: 0.25





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*JMP*  
*06/3/04*

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/K.i/060204.b/k3470.d  
 Lab Smp Id: GGXHGIAD Client Smp ID: INTRA-LAB CHECK  
 Inj Date : 02-JUN-2004 18:55  
 Operator : petersonj Inst ID: K.i  
 Smp Info : GGXHGIAD,,D4E240000-234  
 Misc Info : k3469.d  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/K.i/060204.b/8270C.m  
 Meth Date : 03-Jun-2004 11:53 peterso Quant Type: ISTD  
 Cal Date : 31-MAY-2004 17:57 Cal File: k3410.d  
 Als bottle: 7 QC Sample: LCSD  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: DCS.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN	FINAL
								(ug/ml)	( ug/L)
* 22 1,4-Dichlorobenzene-d4	152			5.070	5.070	(1.000)	89512	40.0000	
* 49 Naphthalene-d8	136			6.275	6.281	(1.000)	330474	40.0000	
* 83 Acenaphthene-d10	164			7.973	7.973	(1.000)	205564	40.0000	
* 117 Phenanthrene-d10	188			9.207	9.212	(1.000)	392869	40.0000	
* 142 Chrysene-d12	240			11.340	11.357	(1.000)	457278	40.0000	
* 151 Perylene-d12	264			12.832	12.861	(1.000)	386135	40.0000	
\$ 36 Nitrobenzene-d5	82			5.605	5.611	(1.105)	307884	85.8163	85.8163
\$ 70 2-Fluorobiphenyl	172			7.327	7.326	(0.919)	433454	69.5105	69.5105
\$ 133 Terphenyl-d14	244			10.441	10.446	(0.921)	605068	78.4029	78.4029
\$ 10 2-Fluorophenol	112			3.995	3.995	(0.788)	350599	119.155	119.155
\$ 14 Phenol-d5	99			4.747	4.753	(0.936)	460016	123.883	123.883
\$ 103 2,4,6-Tribromophenol	330			8.660	8.660	(0.941)	114060	130.914	130.914
\$ 163 1,2-Dichlorobenzene-d4	152			5.247	5.252	(1.035)	119963	65.4388	65.4388
\$ 162 2-Chlorophenol-d4	132			4.900	4.906	(0.966)	338107	124.084	124.084
15 Phenol	94			4.759	4.765	(0.939)	485012	129.034	129.034

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/L)
20 2-Chlorophenol	128	4.912	4.917	(0.969)	355797	126.392	126.392
23 1,4-Dichlorobenzene	146	5.088	5.088	(1.003)	210121	62.4577	62.4577
30 N-nitrosodi-n-propylamine	70	5.452	5.458	(1.075)	188520	87.4238	87.4238
47 1,2,4-Trichlorobenzene	180	6.228	6.234	(0.992)	182879	70.3358	70.3358
59 4-Chloro-3-methylphenol	107	6.804	6.815	(1.084)	315736	125.533	125.533
84 Acenaphthene	153	8.002	8.002	(1.004)	390304	80.3741	80.3741
86 4-Nitrophenol	109	8.067	8.073	(1.012)	151786	117.800	117.800
87 2,4-Dinitrotoluene	165	8.155	8.161	(1.023)	136251	81.3777	81.3777
113 Pentachlorophenol	266	9.101	9.101	(0.988)	153785	135.321	135.321
132 Pyrene	202	10.364	10.370	(0.914)	923223	72.7302	72.7302

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: K.i  
 Lab File ID: k3470.d  
 Lab Smp Id: GGXHG1AD  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: petersonj  
 Method File: /chem/K.i/060204.b/8270C.m  
 Misc Info: k3469.d

Calibration Date: 02-JUN-2004  
 Calibration Time: 17:18  
 Client Smp ID: INTRA-LAB CHECK  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	101139	50570	202278	89512	-11.50
49 Naphthalene-d8	372641	186320	745282	330474	-11.32
83 Acenaphthene-d10	249760	124880	499520	205564	-17.70
117 Phenanthrene-d10	498914	249457	997828	392869	-21.26
142 Chrysene-d12	578954	289477	1157908	457278	-21.02
151 Perylene-d12	517217	258608	1034434	386135	-25.34

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.07	4.57	5.57	5.07	0.00
49 Naphthalene-d8	6.28	5.78	6.78	6.27	-0.09
83 Acenaphthene-d10	7.97	7.47	8.47	7.97	0.00
117 Phenanthrene-d10	9.21	8.71	9.71	9.21	-0.06
142 Chrysene-d12	11.36	10.86	11.86	11.34	-0.15
151 Perylene-d12	12.86	12.36	13.36	12.83	-0.23

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.

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RECOVERY REPORT

Client Name:  
 Sample Matrix: LIQUID  
 Lab Smp Id: GGXHG1AD  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: 02H2O-DCS.spk  
 Sublist File: DCS.sub  
 Method File: /chem/K.i/060204.b/8270C.m  
 Misc Info: k3469.d

Client SDG: D4E240000  
 Fraction: SV  
 Client Smp ID: INTRA-LAB CHECK  
 Operator: petersonj  
 SampleType: LCSD  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
15 Phenol	150.000	129.034	86.02	56-106
20 2-Chlorophenol	150.000	126.392	84.26	59-105
23 1,4-Dichlorobenzen	100.000	62.4577	62.46	31-98
30 N-nitrosodi-n-prop	100.000	87.4238	87.42	51-99
47 1,2,4-Trichloroben	100.000	70.3358	70.34	36-99
59 4-Chloro-3-methylp	150.000	125.533	83.69	59-106
84 Acenaphthene	100.000	80.3741	80.37	55-97
86 4-Nitrophenol	150.000	117.800	78.53	43-118
87 2,4-Dinitrotoluene	100.000	81.3777	81.38	57-113
113 Pentachlorophenol	150.000	135.321	90.21	48-114
132 Pyrene	100.000	72.7302	72.73	51-103

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	100.000	85.8163	85.82	58-108
\$ 70 2-Fluorobiphenyl	100.000	69.5105	69.51	53-97
\$ 133 Terphenyl-d14	100.000	78.4029	78.40	55-109
\$ 10 2-Fluorophenol	150.000	119.155	79.44	54-105
\$ 14 Phenol-d5	150.000	123.883	82.59	55-106
\$ 103 2,4,6-Tribromophen	150.000	130.914	87.28	62-113
\$ 163 1,2-Dichlorobenzen	100.000	65.4388	65.44	20-130
\$ 162 2-Chlorophenol-d4	150.000	124.084	82.72	20-130

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TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:  
Lab Smp Id: GGXHGIAD  
Operator : petersonj  
Sample Location: Generic Lab QC  
Sample Matrix: WATER  
Analysis Type: SV

Client SDG: D4E240000  
Client Smp ID: INTRA-LAB CHECK  
Sample Date: 21-MAY-2004  
Sample Point:  
Date Received: 21-MAY-2004 00:00  
Level: LOW

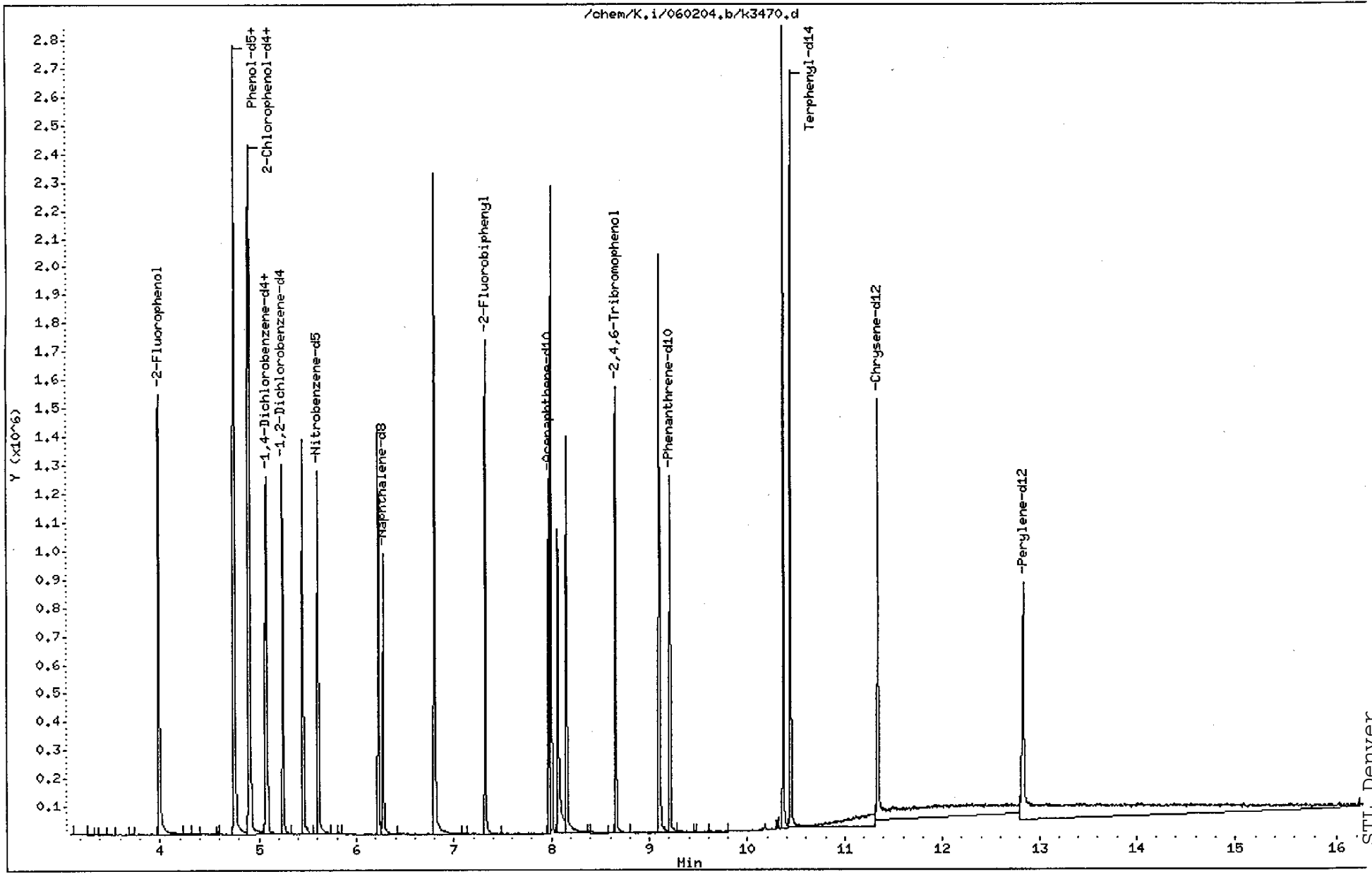
Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

Data File: /chem/K.i/060204,b/k3470.d  
Date : 02-JUN-2004 18:55  
Client ID: INTRA-LAB CHECK  
Sample Info: GGXHG1AD,,D4E240000-234  
Volume Injected (uL): 0,5  
Column phase: Rtx-5ms 30m 0.5um

Instrument: K.i  
Operator: petersonj  
Column diameter: 0.25



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*Handwritten signature*  
 6/3/04

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/K.i/060204.b/k3478.d  
 Lab Smp Id: GGTEE1AC Client Smp ID: 01-MW-06  
 Inj Date : 02-JUN-2004 22:03  
 Operator : petersonj Inst ID: K.i  
 Smp Info : GGTEE1AC,,D4E210325-001  
 Misc Info : 4145234  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/K.i/060204.b/8270C.m  
 Meth Date : 03-Jun-2004 11:53 peterso Quant Type: ISTD  
 Cal Date : 31-MAY-2004 17:57 Cal File: k3410.d  
 Als bottle: 15  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: HSL+AP9.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	990.00000	volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/ml)	FINAL (ug/L)
* 22 1,4-Dichlorobenzene-d4	152			5.070	5.070	(1.000)	102207	40.0000	
* 49 Naphthalene-d8	136			6.281	6.281	(1.000)	376351	40.0000	
* 83 Acenaphthene-d10	164			7.973	7.973	(1.000)	229907	40.0000	
* 117 Phenanthrene-d10	188			9.207	9.212	(1.000)	446691	40.0000	
* 142 Chrysene-d12	240			11.334	11.357	(1.000)	467002	40.0000	
* 151 Perylene-d12	264			12.826	12.861	(1.000)	410981	40.0000	
\$ 36 Nitrobenzene-d5	82			5.605	5.611	(1.105)	282777	69.0284	69.7256
\$ 70 2-Fluorobiphenyl	172			7.327	7.326	(0.919)	389353	55.8272	56.3911
\$ 133 Terphenyl-d14	244			10.435	10.446	(0.921)	525393	66.6613	67.3346
\$ 10 2-Fluorophenol	112			3.995	3.995	(0.788)	321131	95.5836	96.5491
\$ 14 Phenol-d5	99			4.747	4.753	(0.936)	437920	103.284	104.327
\$ 103 2,4,6-Tribromophenol	330			8.660	8.660	(0.941)	100526	101.478	102.503
\$ 163 1,2-Dichlorobenzene-d4	152			5.247	5.252	(1.035)	119073	56.8855	57.4601
\$ 162 2-Chlorophenol-d4	132			4.900	4.906	(0.966)	318883	102.493	103.528
4 N-Nitrosodimethylamine	74								Compound Not Detected.

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
5 Pyridine	79						
7 2-Picoline	93						
8 N-Nitrosomethylethylamine	88						
9 Methyl methanesulfonate	80						
11 N-Nitrosodiethylamine	102						
13 Ethyl methanesulfonate	79						
15 Phenol	94						
16 Aniline	93						
19 Pentachloroethane	117						
18 Bis(2-chloroethyl) ether	93						
20 2-Chlorophenol	128						
21 1,3-Dichlorobenzene	146						
23 1,4-Dichlorobenzene	146						
25 1,2-Dichlorobenzene	146						
24 Benzyl alcohol	108						
26 2-Methylphenol	108						
28 2,2'-oxybis(1-chloropropane)	45						
29 4-Methylphenol	108						
31 N-Nitrosopyrrolidine	100						
32 Acetophenone	105						
34 N-Nitrosomorpholine	116						
35 o-Toluidine	106						
30 N-nitrosodi-n-propylamine	70						
33 Hexachloroethane	117						
37 Nitrobenzene	77						
39 N-Nitrosopiperidine	114						
40 Isophorone	82						
41 2-Nitrophenol	139						
44 O,O,O-Triethyl phosphorothio	198						
42 2,4-Dimethylphenol	107						
43 Bis(2-chloroethoxy)methane	93						
45 Benzoic acid	122						
48 a,a-Dimethylphenethylamine	58						
46 2,4-Dichlorophenol	162						
47 1,2,4-Trichlorobenzene	180						
53 2,6-Dichlorophenol	162						
54 Hexachloropropene	213						
50 Naphthalene	128						
51 4-Chloroaniline	127						
52 Hexachlorobutadiene	225						
57 N-Nitrosodi-n-butylamine	84						
58 p-Phenylenediamine	108						
61 Safrole	162						
59 4-Chloro-3-methylphenol	107						
62 2-Methylnaphthalene	142						
64 1-Methylnaphthalene	142						
65 1,2,4,5-Tetrachlorobenzene	216						



Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
=====	----	==	=====	=====	=====	=====	=====
63 Hexachlorocyclopentadiene	237				Compound Not Detected.		
66 Isosafrole (#1)	162				Compound Not Detected.		
72 Isosafrole (#2)	104				Compound Not Detected.		
73 1-Chloronaphthalene	162				Compound Not Detected.		
71 2-Chloronaphthalene	162				Compound Not Detected.		
67 2,4,6-Trichlorophenol	196				Compound Not Detected.		
68 2,4,5-Trichlorophenol	196				Compound Not Detected.		
75 1,4-Naphthoquinone	158				Compound Not Detected.		
74 2-Nitroaniline	65				Compound Not Detected.		
78 1,4-Dinitrobenzene	168				Compound Not Detected.		
80 1,3-Dinitrobenzene	168				Compound Not Detected.		
76 Dimethyl phthalate	163				Compound Not Detected.		
79 2,6-Dinitrotoluene	165				Compound Not Detected.		
81 Acenaphthylene	152				Compound Not Detected.		
82 3-Nitroaniline	138				Compound Not Detected.		
84 Acenaphthene	153				Compound Not Detected.		
89 Pentachlorobenzene	250				Compound Not Detected.		
85 2,4-Dinitrophenol	184				Compound Not Detected.		
86 4-Nitrophenol	109				Compound Not Detected.		
87 2,4-Dinitrotoluene	165				Compound Not Detected.		
88 Dibenzofuran	168				Compound Not Detected.		
90 1-Naphthylamine	143				Compound Not Detected.		
91 2,3,4,6-Tetrachlorophenol	232				Compound Not Detected.		
92 2-Naphthylamine	143				Compound Not Detected.		
98 Thionazin	97				Compound Not Detected.		
93 Diethyl phthalate	149				Compound Not Detected.		
100 5-Nitro-o-toluidine	152				Compound Not Detected.		
96 Fluorene	166				Compound Not Detected.		
95 4-Chlorophenyl phenyl ether	204				Compound Not Detected.		
97 4-Nitroaniline	138				Compound Not Detected.		
99 4,6-Dinitro-2-methylphenol	198				Compound Not Detected.		
101 N-nitrosodiphenylamine	169				Compound Not Detected.		
182 Diphenylamine	169				Compound Not Detected.		
102 Azobenzene	77				Compound Not Detected.		
104 Sulfotepp	97				Compound Not Detected.		
105 1,3,5-Trinitrobenzene	213				Compound Not Detected.		
107 Phorate	121				Compound Not Detected.		
109 Phenacetin	108				Compound Not Detected.		
106 Diallate (#1)	86				Compound Not Detected.		
111 Diallate (#2)	86				Compound Not Detected.		
108 4-Bromophenyl phenyl ether	248				Compound Not Detected.		
110 Hexachlorobenzene	284				Compound Not Detected.		
112 Dimethoate	87				Compound Not Detected.		
114 4-Aminobiphenyl	169				Compound Not Detected.		
115 Pentachloronitrobenzene	237				Compound Not Detected.		
116 Pronamide	173				Compound Not Detected.		
113 Pentachlorophenol	266				Compound Not Detected.		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
120 2-secbutyl-4,6-dinitropheno	211						
121 Disulfoton	88						
118 Phenanthrene	178						
122 Anthracene	178						
123 Carbazole	167						
124 Methyl parathion	109						
125 Di-n-butyl phthalate	149						
126 Parathion	109						
127 4-Nitroquinoline-1-oxide	190						
128 Methapyrilene	97						
129 Isodrin	193						
130 Fluoranthene	202						
131 Benzidine	184						
132 Pyrene	202						
134 Aramite (#1)	185						
135 Aramite (#2)	185						
136 p-Dimethylaminoazobenzene	120						
138 3,3'-Dimethylbenzidine	212						
137 Butyl benzyl phthalate	149						
139 2-Acetylaminofluorene	181						
140 3,3'-Dichlorobenzidine	252						
143 Bis(2-ethylhexyl) phthalate	149						
141 Benzo(a)anthracene	228						
144 Chrysene	228						
146 Di-n-octyl phthalate	149						
149 7,12-Dimethylbenz(a)anthrac	256						
147 Benzo(b)fluoranthene	252						
148 Benzo(k)fluoranthene	252						
150 Benzo(a)pyrene	252						
152 3-Methylcholanthrene	268						
153 Dibenz(a,j)acridine	279						
155 Indeno(1,2,3-cd)pyrene	276						
156 Dibenz(a,h)anthracene	278						
157 Benzo(g,h,i)perylene	276						
M 1 Total Isosafrole	162						
M 2 Total Diallate	86						
M 3 Total Aramite	185						
165 Chlorobenzilate	251						
168 Methyl Styrene	118						
27 1H-Indene	116						
199 1,4-Dioxane	88	2.691	2.691	(0.531)	68494	39.5527	39.9522
175 Biphenyl	154						
183 Hexachlorophene	196						
204 Atrazine	200						
205 Caprolactam	55						

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: K.i  
 Lab File ID: k3478.d  
 Lab Smp Id: GGTEE1AC  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: petersonj  
 Method File: /chem/K.i/060204.b/8270C.m  
 Misc Info: 4145234

Calibration Date: 02-JUN-2004  
 Calibration Time: 17:18  
 Client Smp ID: 01-MW-06  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	101139	50570	202278	102207	1.06
49 Naphthalene-d8	372641	186320	745282	376351	1.00
83 Acenaphthene-d10	249760	124880	499520	229907	-7.95
117 Phenanthrene-d10	498914	249457	997828	446691	-10.47
142 Chrysene-d12	578954	289477	1157908	467002	-19.34
151 Perylene-d12	517217	258608	1034434	410981	-20.54

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.07	4.57	5.57	5.07	0.00
49 Naphthalene-d8	6.28	5.78	6.78	6.28	0.00
83 Acenaphthene-d10	7.97	7.47	8.47	7.97	0.00
117 Phenanthrene-d10	9.21	8.71	9.71	9.21	-0.06
142 Chrysene-d12	11.36	10.86	11.86	11.33	-0.21
151 Perylene-d12	12.86	12.36	13.36	12.83	-0.27

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.

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RECOVERY REPORT

Client Name: Cabrera Services  
Sample Matrix: LIQUID  
Lab Smp Id: GGTEE1AC  
Level: LOW  
Data Type: MS DATA  
SpikeList File: 9HSOIL.spk  
Sublist File: HSL+AP9.sub  
Method File: /chem/K.i/060204.b/8270C.m  
Misc Info: 4145234

Client SDG: D4E210325  
Fraction: SV  
Client Smp ID: 01-MW-06  
Operator: petersonj  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	101.010	69.7256	69.03	53-107
\$ 70 2-Fluorobiphenyl	101.010	56.3911	55.83	31-105
\$ 133 Terphenyl-d14	101.010	67.3346	66.66	21-125
\$ 10 2-Fluorophenol	151.515	96.5491	63.72	32-116
\$ 14 Phenol-d5	151.515	104.327	68.86	40-111
\$ 103 2,4,6-Tribromophen	151.515	102.503	67.65	42-122
\$ 163 1,2-Dichlorobenzen	101.010	57.4601	56.89	20-130
\$ 162 2-Chlorophenol-d4	151.515	103.528	68.33	20-130

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TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Cabrera Services	Client SDG: D4E210325
Lab Smp Id: GGTEE1AC	Client Smp ID: 01-MW-06
Operator : petersonj	Sample Date: 19-MAY-2004
Sample Location: USDA National Disease Center	Sample Point: e Center
Sample Matrix: WATER	Date Received: 21-MAY-2004 00:00
Analysis Type: SV	Level: LOW

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	2.456	6.39573	J
2.	Unknown	10.394	4.71360	J

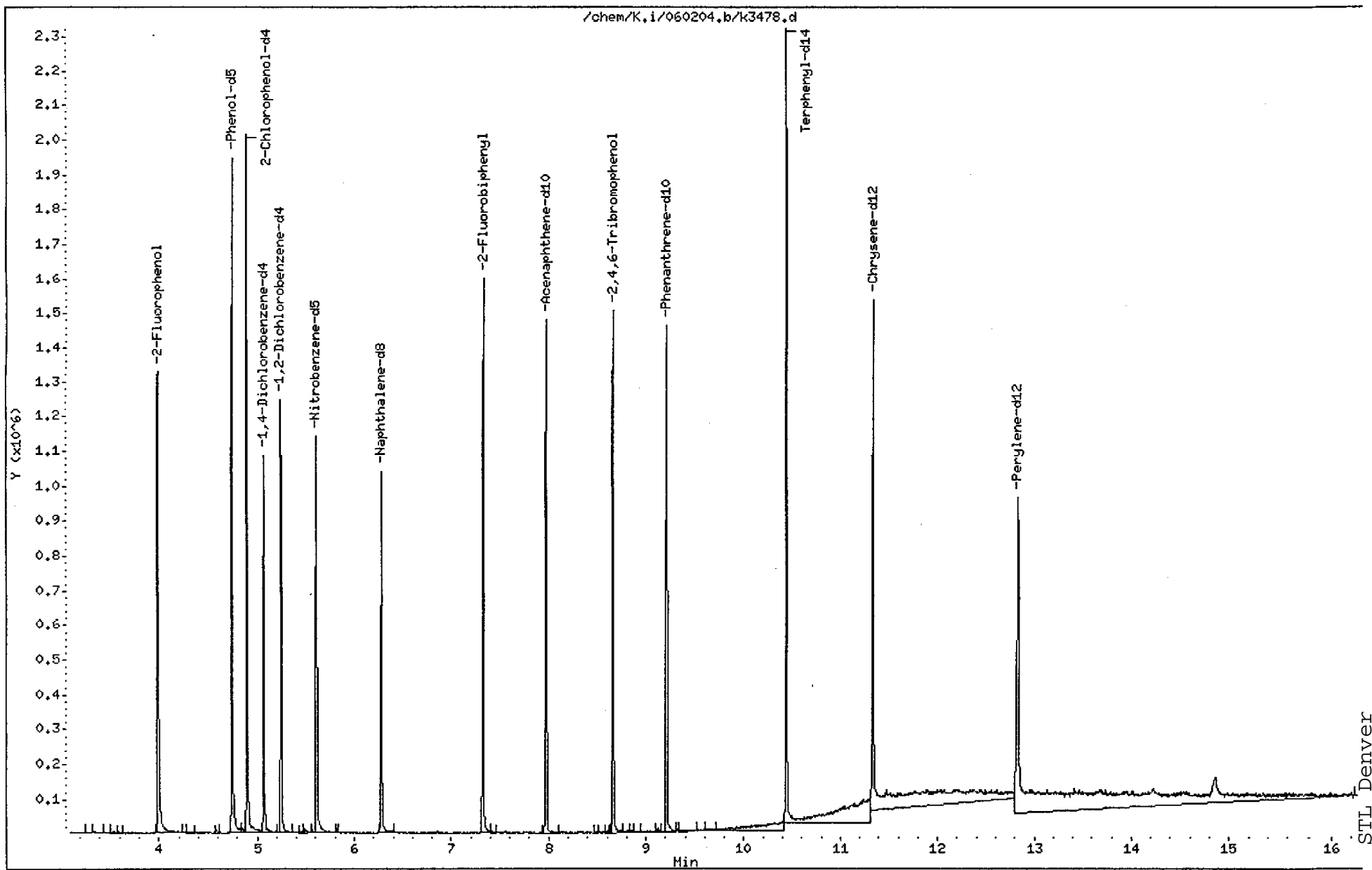
Data File: /chem/K,i/060204,b/k3478.d  
Date: 02-JUN-2004 22:03  
Client ID: 01-MW-06  
Sample Info: GGTEE1AC,,D4E210325-001  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

Page 8

Instrument: K.i

Operator: petersonj

Column diameter: 0.25



Date : 02-JUN-2004 22:03

Client ID: 01-MW-06

Instrument: K.i

Sample Info: CGTEE1AC,,D4E210325-001

Volume Injected (uL): 0.5

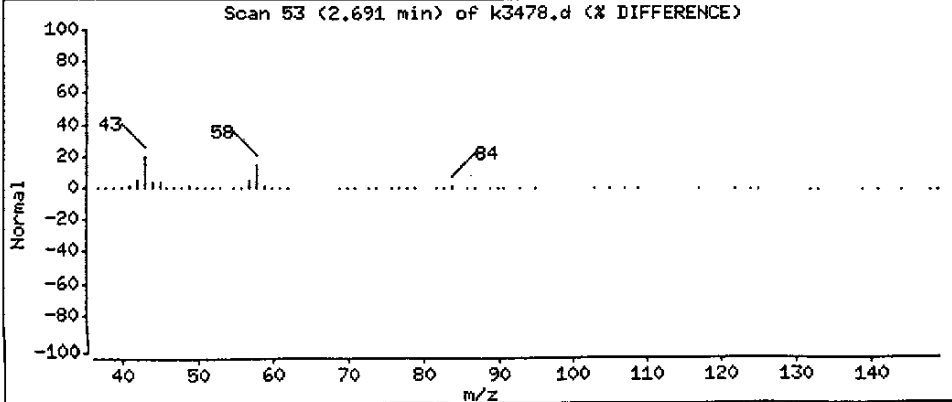
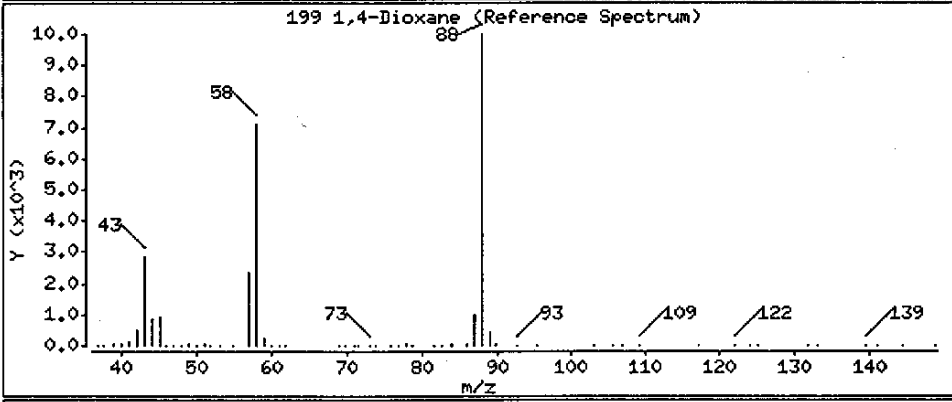
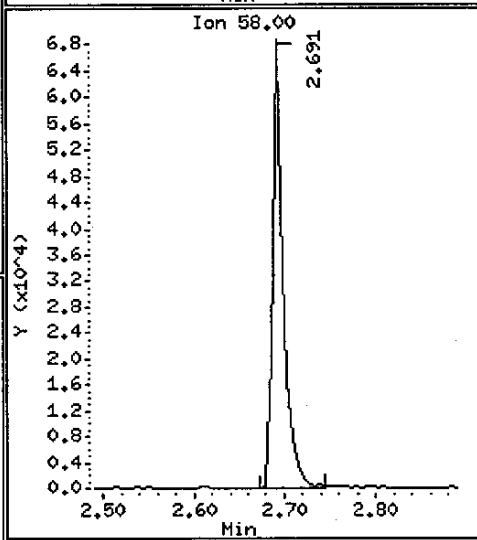
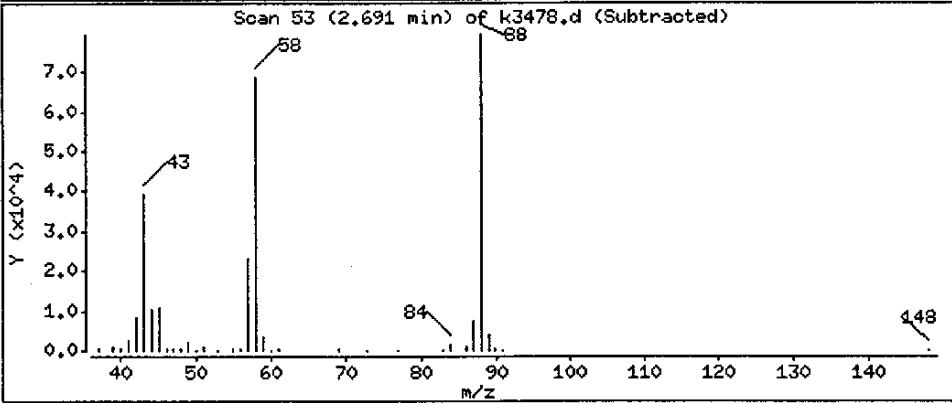
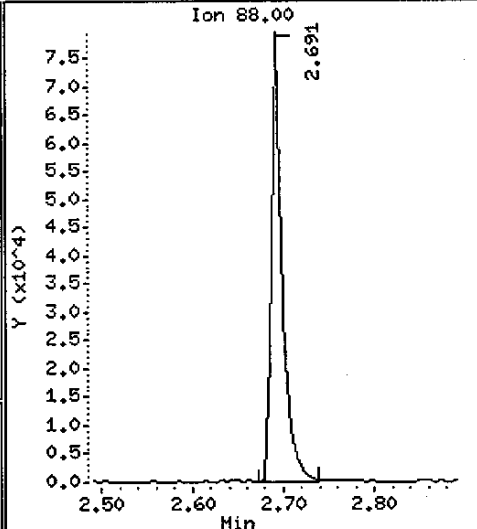
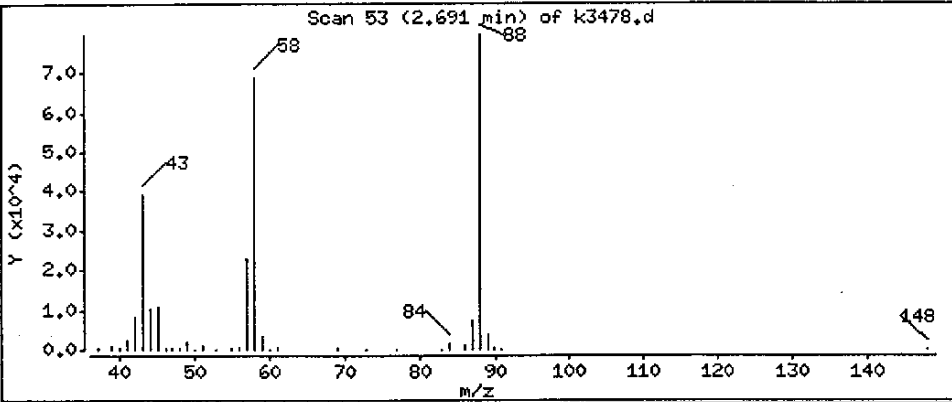
Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

199 1,4-Dioxane

Concentration: 39.9522 ug/L



Date : 02-JUN-2004 22:03

Client ID: 01-MW-06

Instrument: K.i

Sample Info: GGTEE1AC,,D4E210325-001

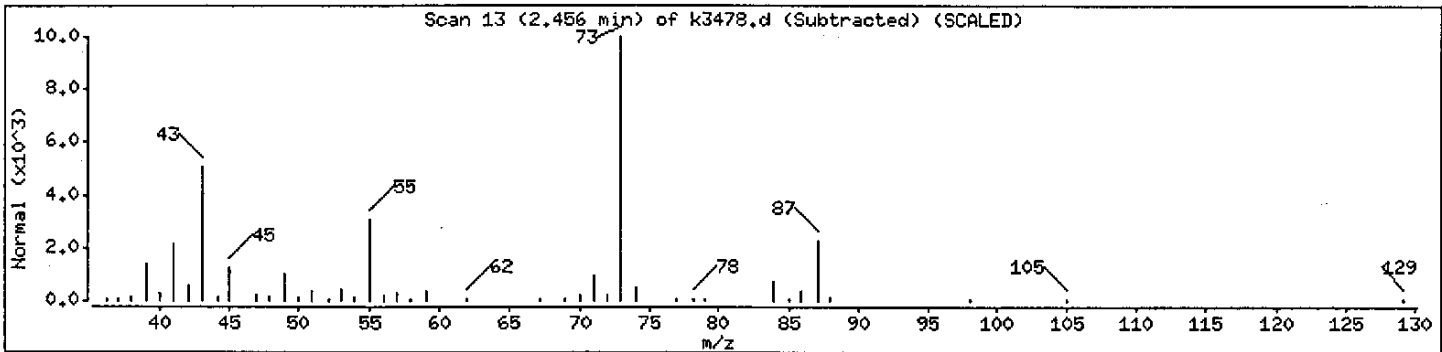
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0





Date : 02-JUN-2004 22:03

Client ID: 01-MW-06

Instrument: K.i

Sample Info: GGTEELAC,,D4E210325-001

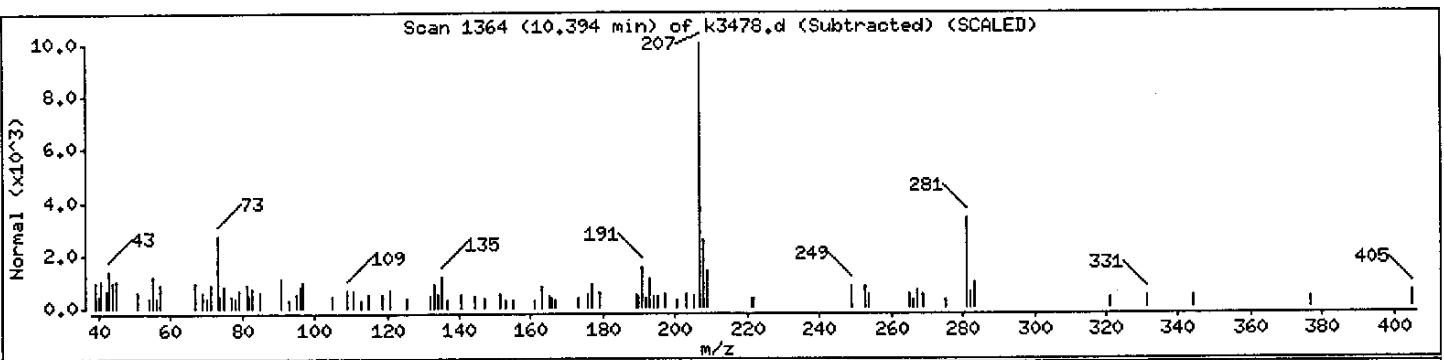
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



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*Handwritten:* JMF 6/3/04

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/K.i/060204.b/k3479.d  
 Lab Smp Id: GGTE31AC Client Smp ID: 01-MW-12  
 Inj Date : 02-JUN-2004 22:27  
 Operator : petersonj Inst ID: K.i  
 Smp Info : GGTE31AC,,D4E210325-002  
 Misc Info : 4145234  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/K.i/060204.b/8270C.m  
 Meth Date : 03-Jun-2004 11:53 peterso Quant Type: ISTD  
 Cal Date : 31-MAY-2004 17:57 Cal File: k3410.d  
 Als bottle: 16  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: HSL+AP9.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	978.00000	volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	CONCENTRATIONS						
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/L)
* 22 1,4-Dichlorobenzene-d4	152		5.070	5.070	(1.000)	92943	40.0000		
* 49 Naphthalene-d8	136		6.275	6.281	(1.000)	337595	40.0000		
* 83 Acenaphthene-d10	164		7.973	7.973	(1.000)	216057	40.0000		
* 117 Phenanthrene-d10	188		9.207	9.212	(1.000)	428740	40.0000		
* 142 Chrysene-d12	240		11.322	11.357	(1.000)	486958	40.0000		
* 151 Perylene-d12	264		12.808	12.861	(1.000)	416226	40.0000		
\$ 36 Nitrobenzene-d5	82		5.605	5.611	(1.105)	317969	85.3556	87.2757	
\$ 70 2-Fluorobiphenyl	172		7.326	7.326	(0.919)	494787	75.4926	77.1908	
\$ 133 Terphenyl-d14	244		10.429	10.446	(0.921)	319063	38.8234	39.6967	
\$ 10 2-Fluorophenol	112		3.995	3.995	(0.788)	369455	120.928	123.648	
\$ 14 Phenol-d5	99		4.747	4.753	(0.936)	462863	120.048	122.748	
\$ 103 2,4,6-Tribromophenol	330		8.660	8.660	(0.941)	137417	144.526	147.777	
\$ 163 1,2-Dichlorobenzene-d4	152		5.246	5.252	(1.035)	135961	71.4277	73.0345	
\$ 162 2-Chlorophenol-d4	132		4.900	4.906	(0.966)	350900	124.025	126.815	
4 N-Nitrosodimethylamine	74		Compound Not Detected.						

Compounds	QUANT MASS	SIG	RT	EXP	RT	REL	RT	RESPONSE	CONCENTRATIONS	
									ON-COLUMN (ug/ml)	FINAL ( ug/L)
5 Pyridine	79							Compound Not Detected.		
7 2-Picoline	93							Compound Not Detected.		
8 N-Nitrosomethylethylamine	88							Compound Not Detected.		
9 Methyl methanesulfonate	80							Compound Not Detected.		
11 N-Nitrosodiethylamine	102							Compound Not Detected.		
13 Ethyl methanesulfonate	79							Compound Not Detected.		
15 Phenol	94							Compound Not Detected.		
16 Aniline	93							Compound Not Detected.		
19 Pentachloroethane	117							Compound Not Detected.		
18 Bis(2-chloroethyl) ether	93							Compound Not Detected.		
20 2-Chlorophenol	128							Compound Not Detected.		
21 1,3-Dichlorobenzene	146							Compound Not Detected.		
23 1,4-Dichlorobenzene	146							Compound Not Detected.		
25 1,2-Dichlorobenzene	146							Compound Not Detected.		
24 Benzyl alcohol	108							Compound Not Detected.		
26 2-Methylphenol	108							Compound Not Detected.		
28 2,2'-oxybis(1-chloropropane)	45							Compound Not Detected.		
29 4-Methylphenol	108							Compound Not Detected.		
31 N-Nitrosopyrrolidine	100							Compound Not Detected.		
32 Acetophenone	105							Compound Not Detected.		
34 N-Nitrosomorpholine	116							Compound Not Detected.		
35 o-Toluidine	106							Compound Not Detected.		
30 N-nitrosodi-n-propylamine	70							Compound Not Detected.		
33 Hexachloroethane	117							Compound Not Detected.		
37 Nitrobenzene	77							Compound Not Detected.		
39 N-Nitrosopiperidine	114							Compound Not Detected.		
40 Isophorone	82							Compound Not Detected.		
41 2-Nitrophenol	139							Compound Not Detected.		
44 O,O,O-Triethyl phosphorothio	198							Compound Not Detected.		
42 2,4-Dimethylphenol	107							Compound Not Detected.		
43 Bis(2-chloroethoxy)methane	93							Compound Not Detected.		
45 Benzoic acid	122							Compound Not Detected.		
48 a,a-Dimethylphenethylamine	58							Compound Not Detected.		
46 2,4-Dichlorophenol	162							Compound Not Detected.		
47 1,2,4-Trichlorobenzene	180							Compound Not Detected.		
53 2,6-Dichlorophenol	162							Compound Not Detected.		
54 Hexachloropropene	213							Compound Not Detected.		
50 Naphthalene	128							Compound Not Detected.		
51 4-Chloroaniline	127							Compound Not Detected.		
52 Hexachlorobutadiene	225							Compound Not Detected.		
57 N-Nitrosodi-n-butylamine	84							Compound Not Detected.		
58 p-Phenylenediamine	108							Compound Not Detected.		
61 Safrole	162							Compound Not Detected.		
59 4-Chloro-3-methylphenol	107							Compound Not Detected.		
62 2-Methylnaphthalene	142							Compound Not Detected.		
64 1-Methylnaphthalene	142							Compound Not Detected.		
65 1,2,4,5-Tetrachlorobenzene	216							Compound Not Detected.		

Compounds	QUANT SIG MASS	RT	EXP	RT	REL	RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/ml)	FINAL ( ug/L)
63 Hexachlorocyclopentadiene	237								
66 Isosafrole (#1)	162								
72 Isosafrole (#2)	104								
73 1-Chloronaphthalene	162								
71 2-Chloronaphthalene	162								
67 2,4,6-Trichlorophenol	196								
68 2,4,5-Trichlorophenol	196								
75 1,4-Naphthoquinone	158								
74 2-Nitroaniline	65								
78 1,4-Dinitrobenzene	168								
80 1,3-Dinitrobenzene	168								
76 Dimethyl phthalate	163								
79 2,6-Dinitrotoluene	165								
81 Acenaphthylene	152								
82 3-Nitroaniline	138								
84 Acenaphthene	153								
89 Pentachlorobenzene	250								
85 2,4-Dinitrophenol	184								
86 4-Nitrophenol	109								
87 2,4-Dinitrotoluene	165								
88 Dibenzofuran	168								
90 1-Naphthylamine	143								
91 2,3,4,6-Tetrachlorophenol	232								
92 2-Naphthylamine	143								
98 Thionazin	97								
93 Diethyl phthalate	149								
100 5-Nitro-o-toluidine	152								
96 Fluorene	166								
95 4-Chlorophenyl phenyl ether	204								
97 4-Nitroaniline	138								
99 4,6-Dinitro-2-methylphenol	198								
101 N-nitrosodiphenylamine	169								
182 Diphenylamine	169								
102 Azobenzene	77								
104 Sulfotepp	97								
105 1,3,5-Trinitrobenzene	213								
107 Phorate	121								
109 Phenacetin	108								
106 Diallate (#1)	86								
111 Diallate (#2)	86								
108 4-Bromophenyl phenyl ether	248								
110 Hexachlorobenzene	284								
112 Dimethoate	87								
114 4-Aminobiphenyl	169								
115 Pentachloronitrobenzene	237								
116 Pronamide	173								
113 Pentachlorophenol	266								

Compounds	QUANT	SIG	RT	EXP	RT	REL	RT	RESPONSE	CONCENTRATIONS	
									ON-COLUMN	FINAL
	MASS								(ug/ml)	( ug/L)
=====	----		==	-----	-----	-----	-----	-----	-----	-----
120 2-secbutyl-4,6-dinitropheno	211									
121 Disulfoton	88									
118 Phenanthrene	178									
122 Anthracene	178									
123 Carbazole	167									
124 Methyl parathion	109									
125 Di-n-butyl phthalate	149									
126 Parathion	109									
127 4-Nitroquinoline-1-oxide	190									
128 Methapyrilene	97									
129 Isodrin	193									
130 Fluoranthene	202									
131 Benzidine	184									
132 Pyrene	202									
134 Aramite (#1)	185									
135 Aramite (#2)	185									
136 p-Dimethylaminoazobenzene	120									
138 3,3'-Dimethylbenzidine	212									
137 Butyl benzyl phthalate	149									
139 2-Acetylaminofluorene	181									
140 3,3'-Dichlorobenzidine	252									
143 Bis(2-ethylhexyl) phthalate	149									
141 Benzo(a)anthracene	228									
144 Chrysene	228									
146 Di-n-octyl phthalate	149									
149 7,12-Dimethylbenz(a)anthrac	256									
147 Benzo(b)fluoranthene	252									
148 Benzo(k)fluoranthene	252									
150 Benzo(a)pyrene	252									
152 3-Methylcholanthrene	268									
153 Dibenz(a,j)acridine	279									
155 Indeno(1,2,3-cd)pyrene	276									
156 Dibenz(a,h)anthracene	278									
157 Benzo(g,h,i)perylene	276									
M 1 Total Isosaafrole	162									
M 2 Total Diallate	86									
M 3 Total Aramite	185									
165 Chlorobenzilate	251									
168 Methyl Styrene	118									
27 1H-Indene	116									
199 1,4-Dioxane	88		2.690	2.691	(0.531)		96452	61.2489	62.6267	
175 Biphenyl	154									
183 Hexachlorophene	196									
204 Atrazine	200									
205 Caprolactam	55									

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: K.i  
 Lab File ID: k3479.d  
 Lab Smp Id: GGTE31AC  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: petersonj  
 Method File: /chem/K.i/060204.b/8270C.m  
 Misc Info: 4145234

Calibration Date: 02-JUN-2004  
 Calibration Time: 17:18  
 Client Smp ID: 01-MW-12  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	101139	50570	202278	92943	-8.10
49 Naphthalene-d8	372641	186320	745282	337595	-9.40
83 Acenaphthene-d10	249760	124880	499520	216057	-13.49
117 Phenanthrene-d10	498914	249457	997828	428740	-14.07
142 Chrysene-d12	578954	289477	1157908	486958	-15.89
151 Perylene-d12	517217	258608	1034434	416226	-19.53

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.07	4.57	5.57	5.07	0.00
49 Naphthalene-d8	6.28	5.78	6.78	6.27	-0.10
83 Acenaphthene-d10	7.97	7.47	8.47	7.97	0.00
117 Phenanthrene-d10	9.21	8.71	9.71	9.21	-0.06
142 Chrysene-d12	11.36	10.86	11.86	11.32	-0.31
151 Perylene-d12	12.86	12.36	13.36	12.81	-0.41

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.

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RECOVERY REPORT

Client Name: Cabrera Services  
Sample Matrix: LIQUID  
Lab Smp Id: GGTE31AC  
Level: LOW  
Data Type: MS DATA  
SpikeList File: 9HSOIL.spk  
Sublist File: HSL+AP9.sub  
Method File: /chem/K.i/060204.b/8270C.m  
Misc Info: 4145234

Client SDG: D4E210325  
Fraction: SV  
Client Smp ID: 01-MW-12  
Operator: petersonj  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	102.249	87.2757	85.36	53-107
\$ 70 2-Fluorobiphenyl	102.249	77.1908	75.49	31-105
\$ 133 Terphenyl-d14	102.249	39.6967	38.82	21-125
\$ 10 2-Fluorophenol	153.374	123.648	80.62	32-116
\$ 14 Phenol-d5	153.374	122.748	80.03	40-111
\$ 103 2,4,6-Tribromophen	153.374	147.777	96.35	42-122
\$ 163 1,2-Dichlorobenzen	102.249	73.0345	71.43	20-130
\$ 162 2-Chlorophenol-d4	153.374	126.815	82.68	20-130

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TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Cabrera Services                      Client SDG: D4E210325  
Lab Smp Id: GGTE31AC                              Client Smp ID: 01-MW-12  
Operator : petersonj                              Sample Date: 19-MAY-2004  
Sample Location: USDA National Disease Center    Sample Point: e Center  
Sample Matrix: WATER                              Date Received: 21-MAY-2004 00:00  
Analysis Type: SV                                      Level: LOW

Number TICs found: 12

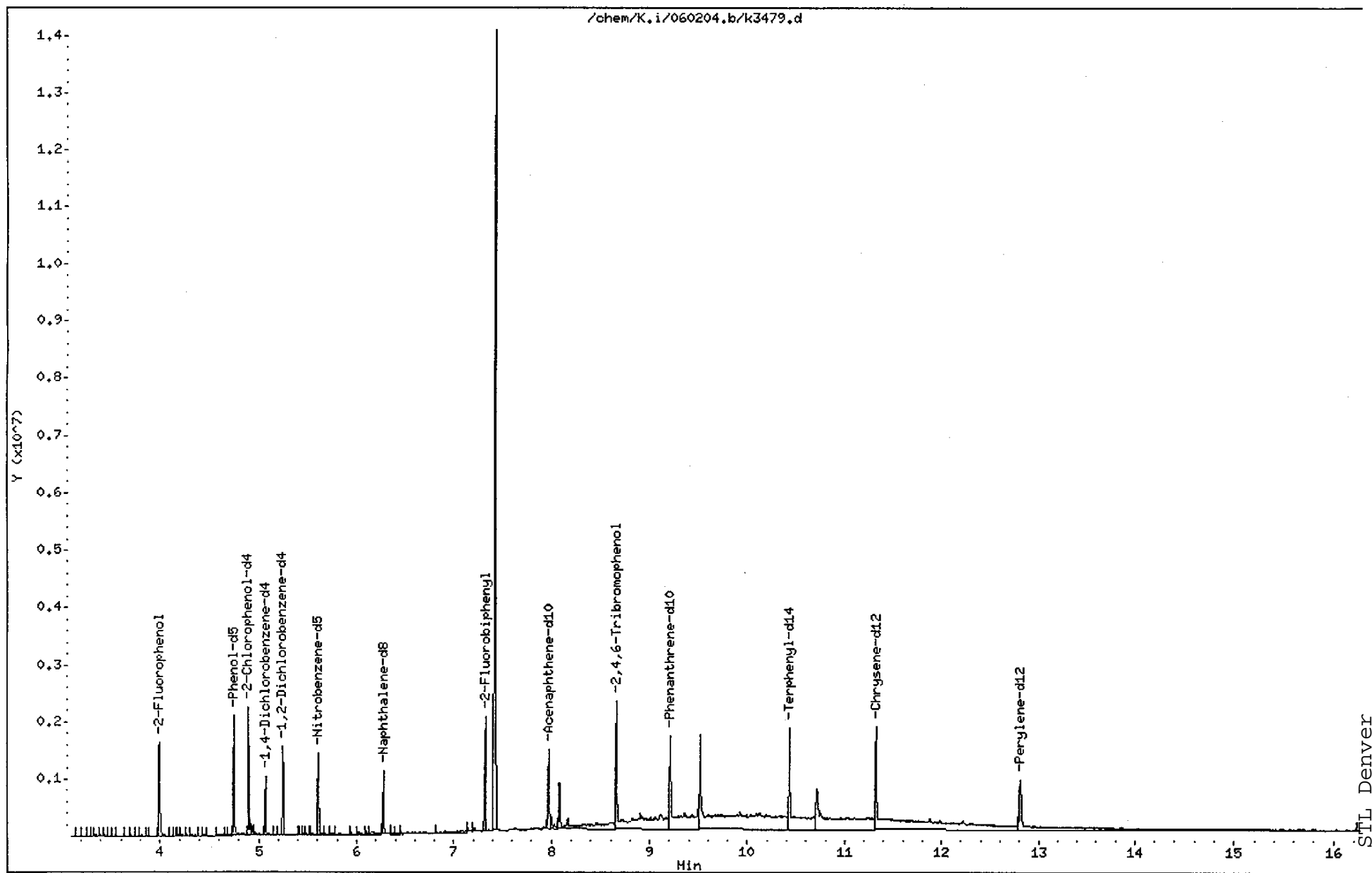
CONCENTRATION UNITS:  
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	2.455	9.48991	J
2.	Unknown	2.579	9.91787	J
3.	Unknown	4.929	8.70862	J
4.	Unknown	4.958	5.09145	J
5.	Unknown	6.169	7.03952	J
6.	Unknown	6.704	11.5925	J
7.	Unknown	7.074	17.8529	J
8. 80-46-6	Phenol, 4-(1,1-dimethylprop	7.426	461.154	NJ
9. 50-84-0	Benzoic acid, 2,4-dichloro-	8.002	13.9594	NJ
10. 90-43-7	o-Hydroxybiphenyl	8.078	123.682	NJ
11. 120-32-1	Clorophene	9.518	105.886	NJ
12.	Unknown	10.711	27.4258	J



Data File: /chem/K,i/060204,b/k3479.d  
Date : 02-JUN-2004 22:27  
Client ID: 01-MW-12  
Sample Info: CGTE31AC,,D4E210325-002  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

Instrument: K.i  
Operator: petersonj  
Column diameter: 0.25



Date : 02-JUN-2004 22:27

Client ID: 01-MW-12

Instrument: K.i

Sample Info: GGTE31AC,,D4E210325-002

Volume Injected (uL): 0.5

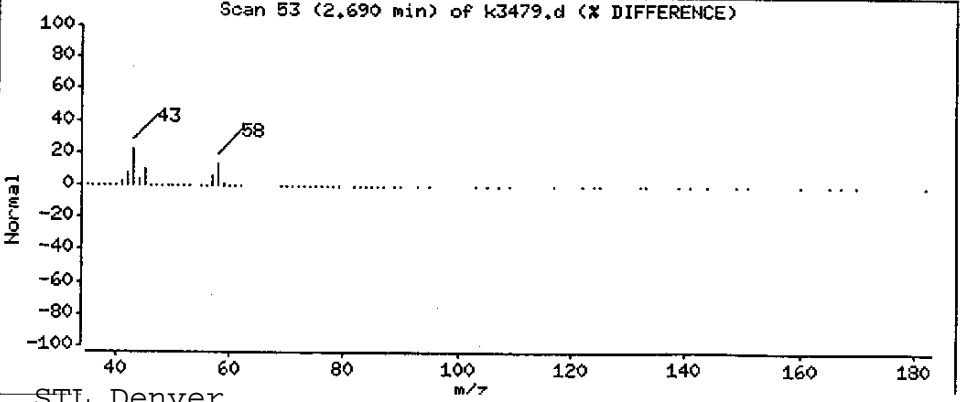
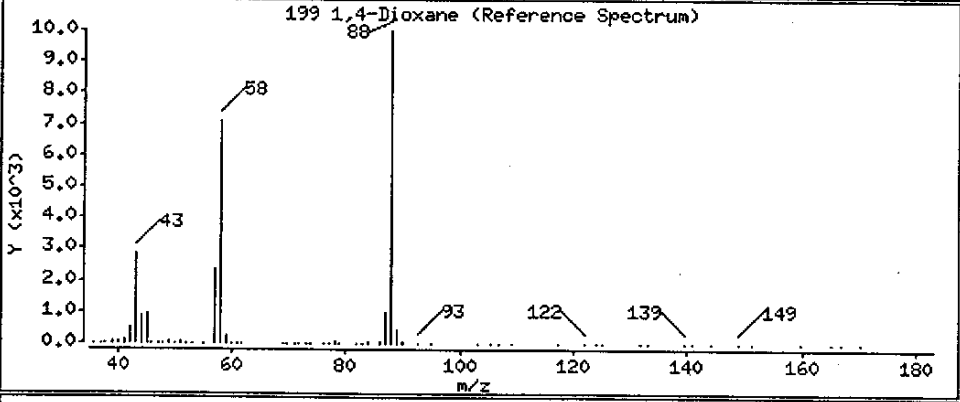
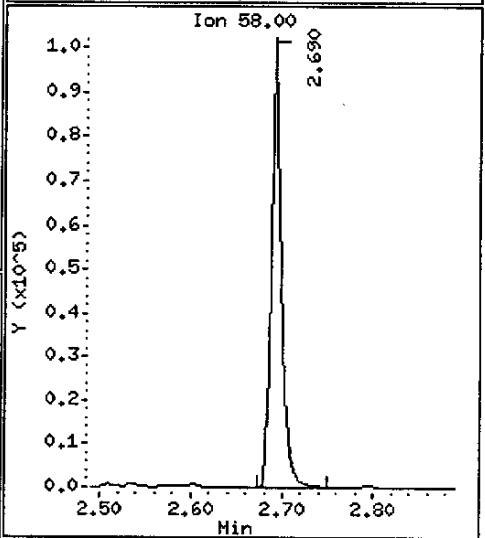
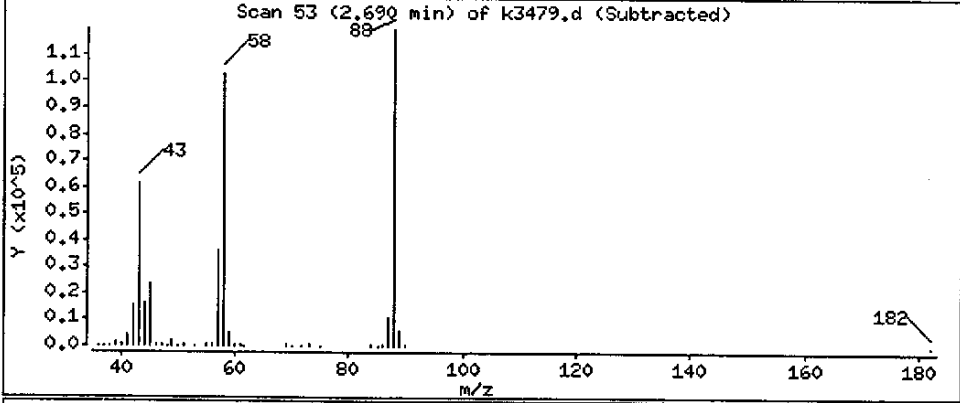
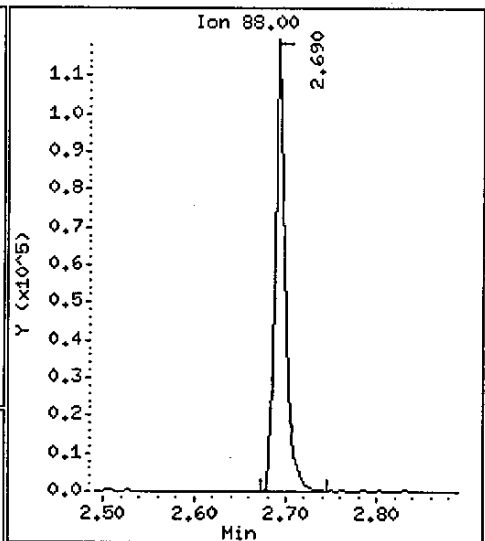
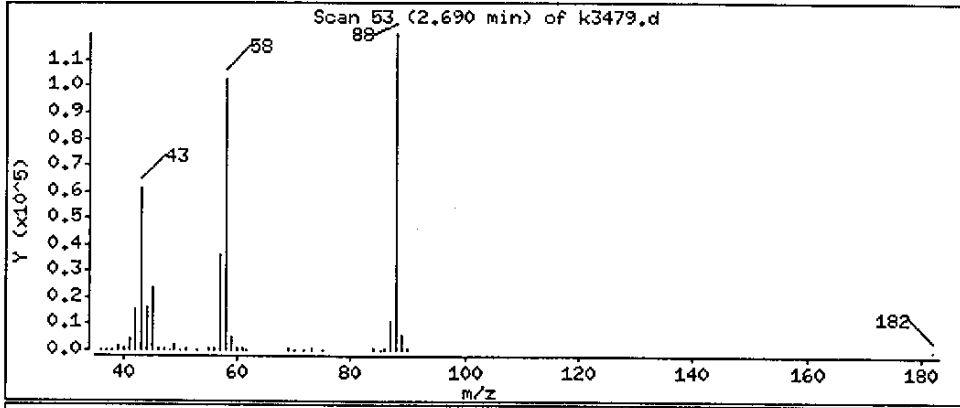
Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

199 1,4-Dioxane

Concentration: 62.6267 ug/L



Date : 02-JUN-2004 22:27

Client ID: 01-MW-12

Instrument: K.i

Sample Info: GGTE31AC,,D4E210325-002

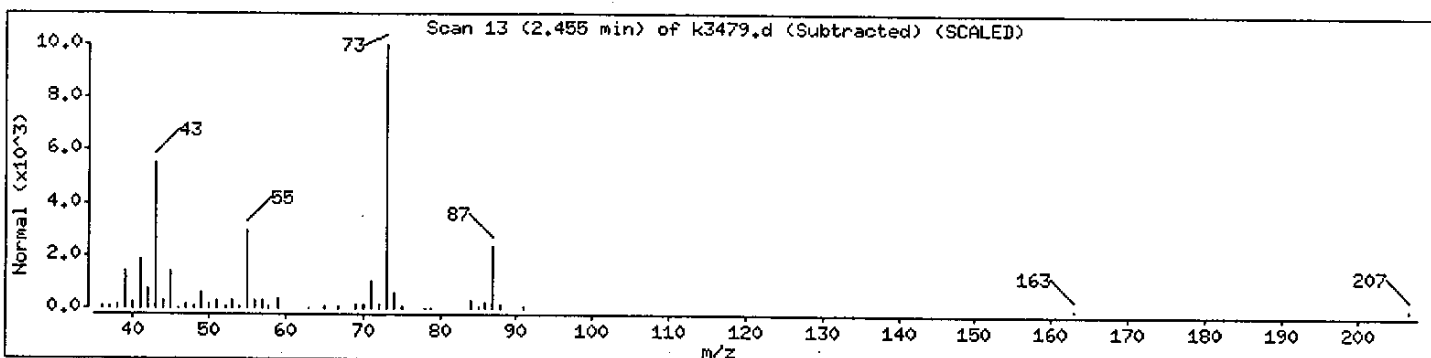
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Date : 02-JUN-2004 22:27

Client ID: 01-MM-12

Instrument: K.i

Sample Info: GGTE31AC,,D4E210325-002

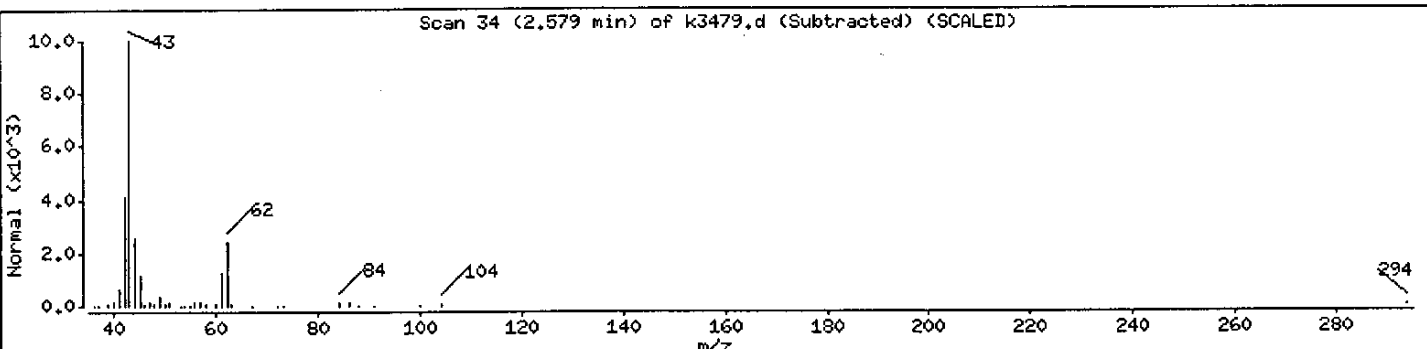
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Date : 02-JUN-2004 22:27

Client ID: 01-MW-12

Instrument: K.i

Sample Info: GGTE31AC,,D4E210325-002

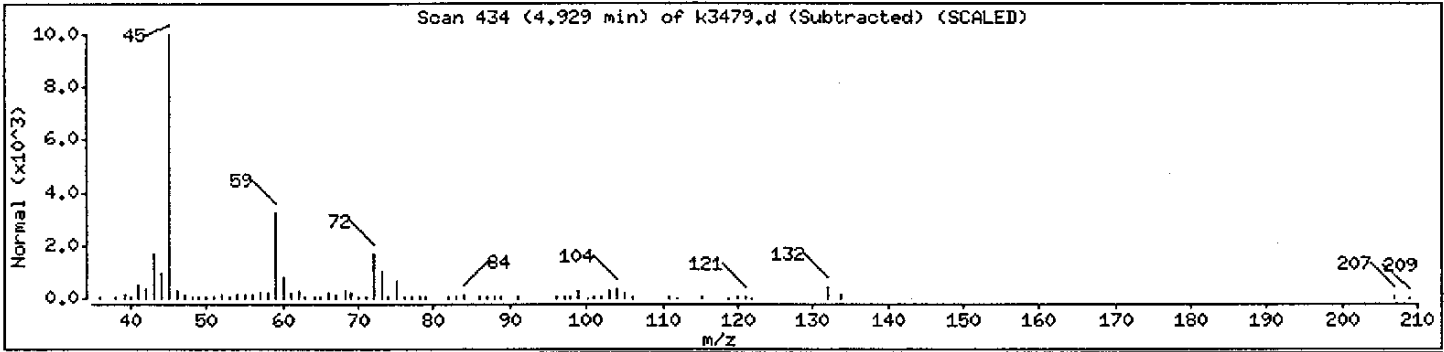
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Date : 02-JUN-2004 22:27

Client ID: 01-MW-12

Instrument: K.i

Sample Info: GGTE31AC,,D4E210325-002

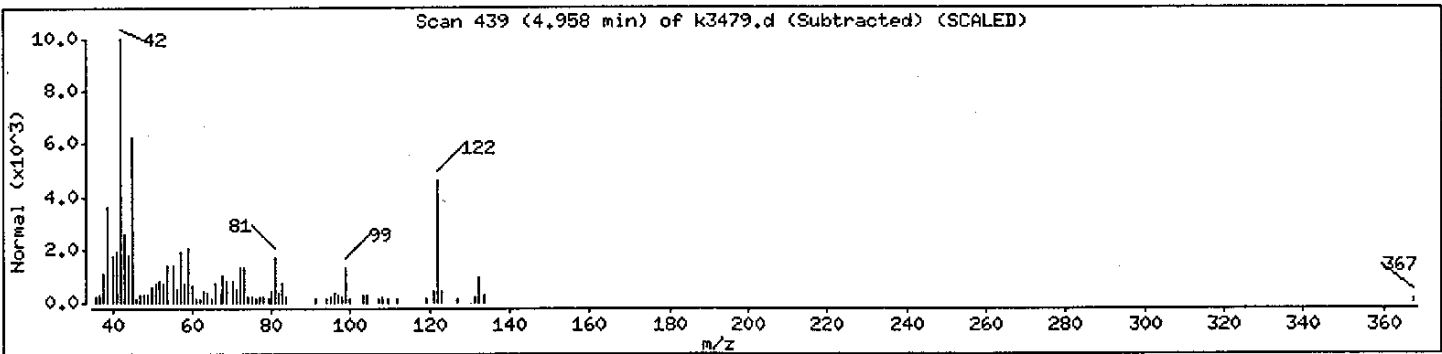
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Date : 02-JUN-2004 22:27

Client ID: 01-HW-12

Instrument: K.i

Sample Info: GGTE31AC,,D4E210325-002

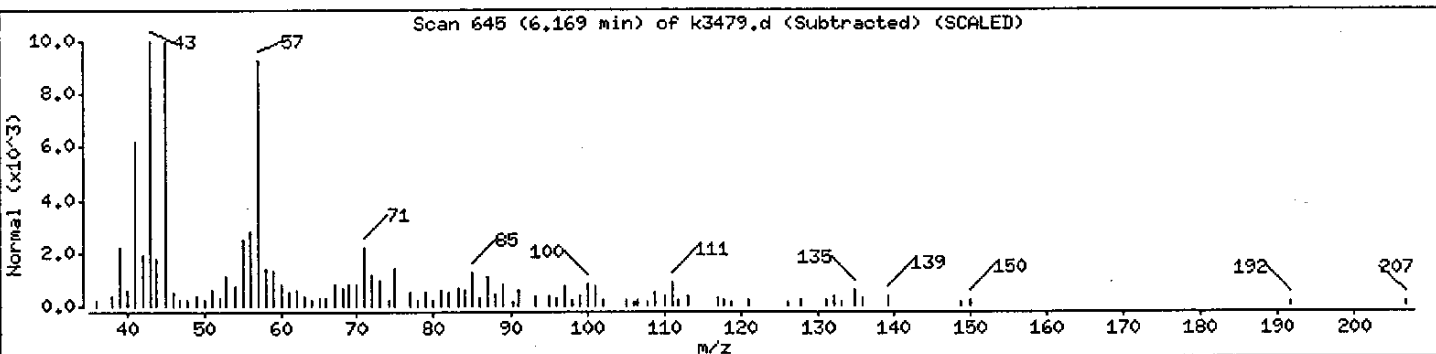
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Date : 02-JUN-2004 22:27

Client ID: 01-MW-12

Instrument: K.i

Sample Info: GGTE31AC,,D4E210325-002

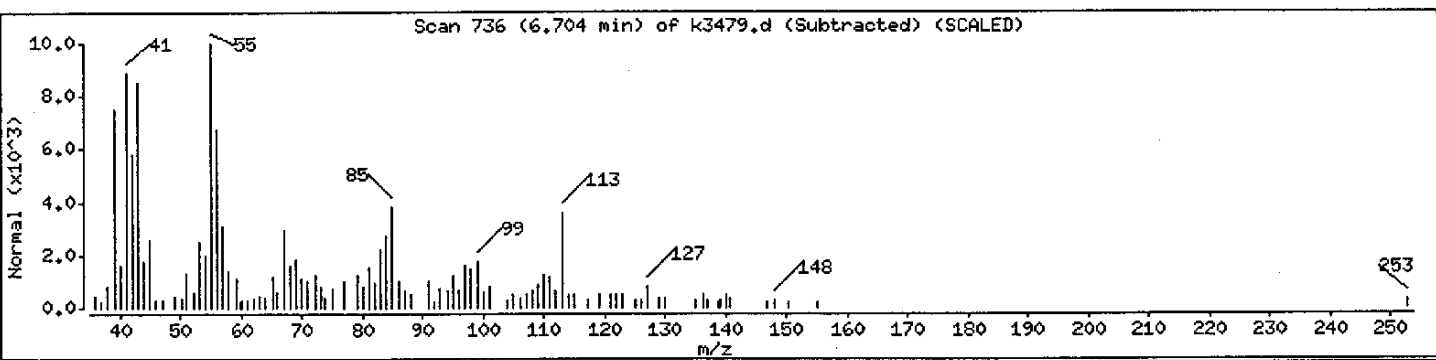
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0





Date : 02-JUN-2004 22:27

Client ID: 01-MW-12

Instrument: K.i

Sample Info: GGTE31AC,,D4E210325-002

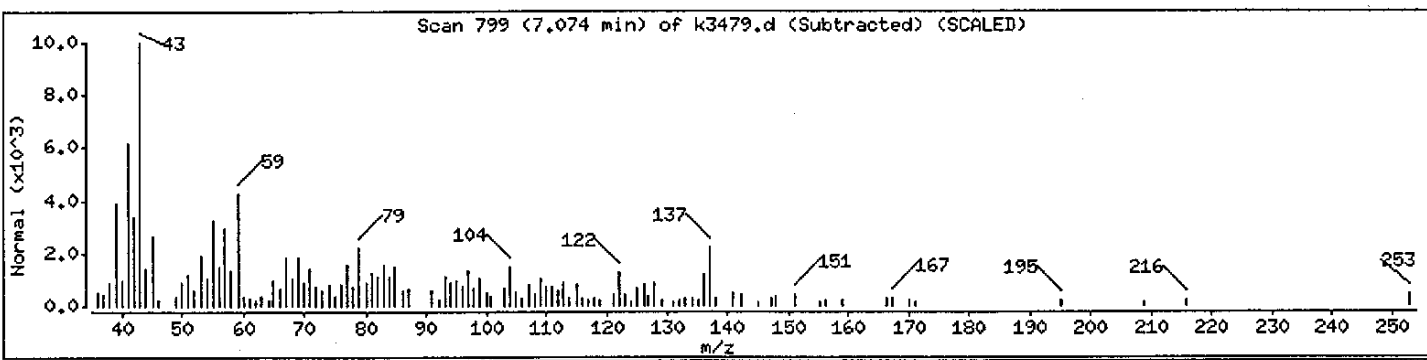
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Date : 02-JUN-2004 22:27

Client ID: 01-MW-12

Instrument: K.i

Sample Info: GGTE31AC,,D4E210325-002

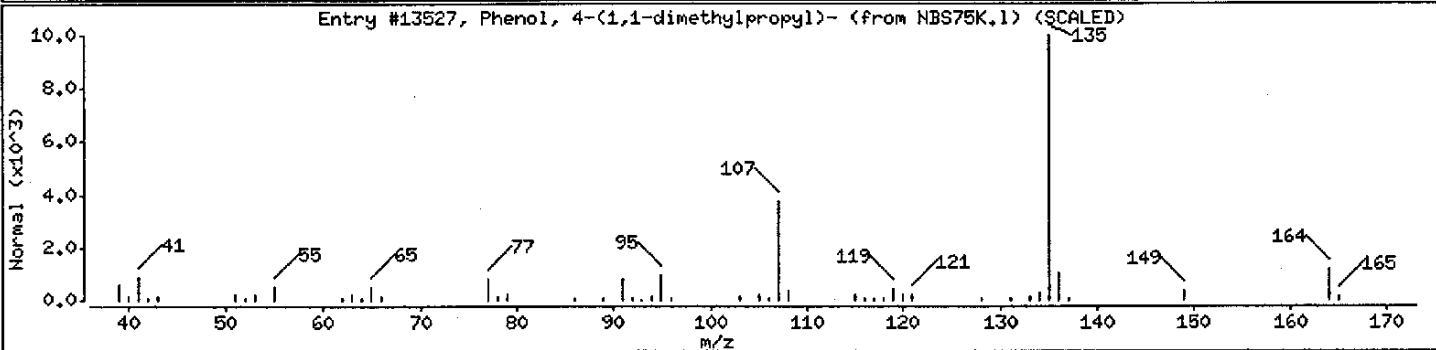
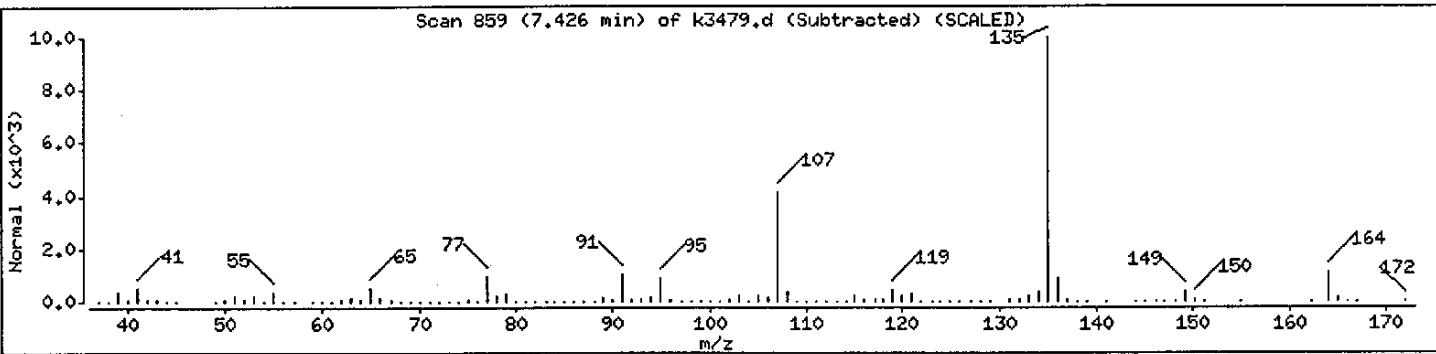
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenol, 4-(1,1-dimethylpropyl)-	80-46-6	NBS75K.1	13527	97	C11H16O	164



Date : 02-JUN-2004 22:27

Client ID: 01-MW-12

Instrument: K.i

Sample Info: GGTE31AC,,D4E210325-002

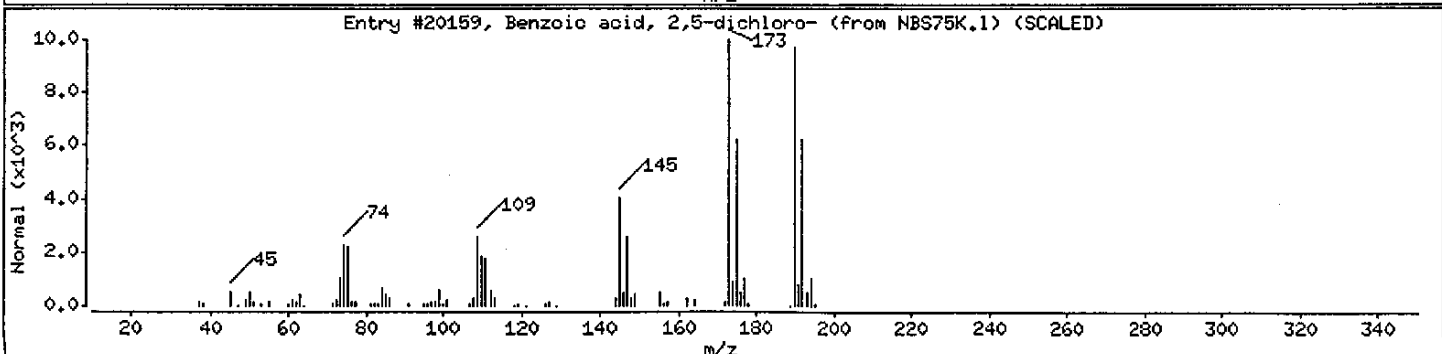
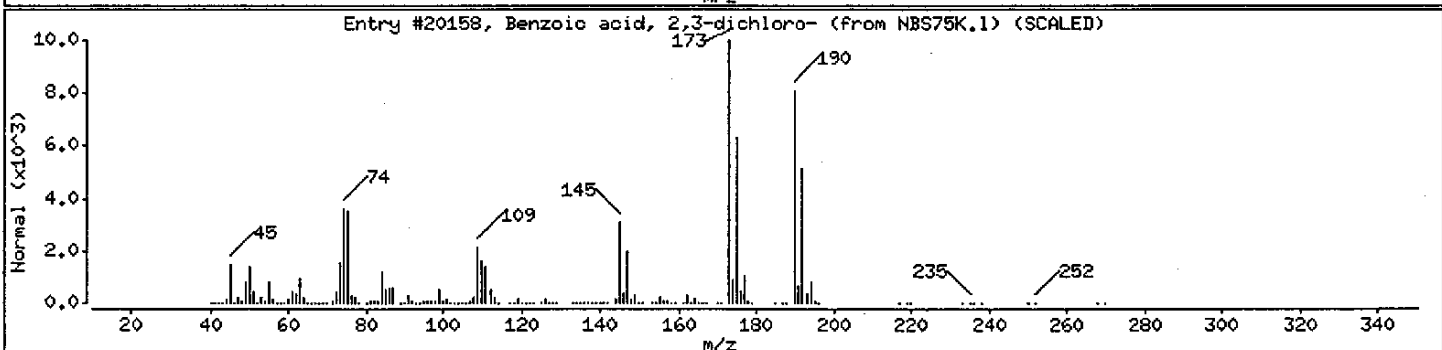
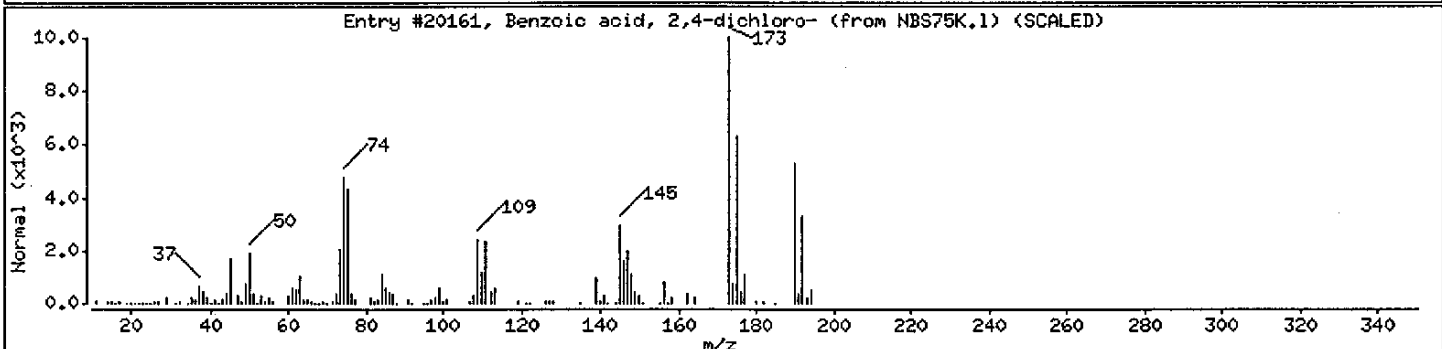
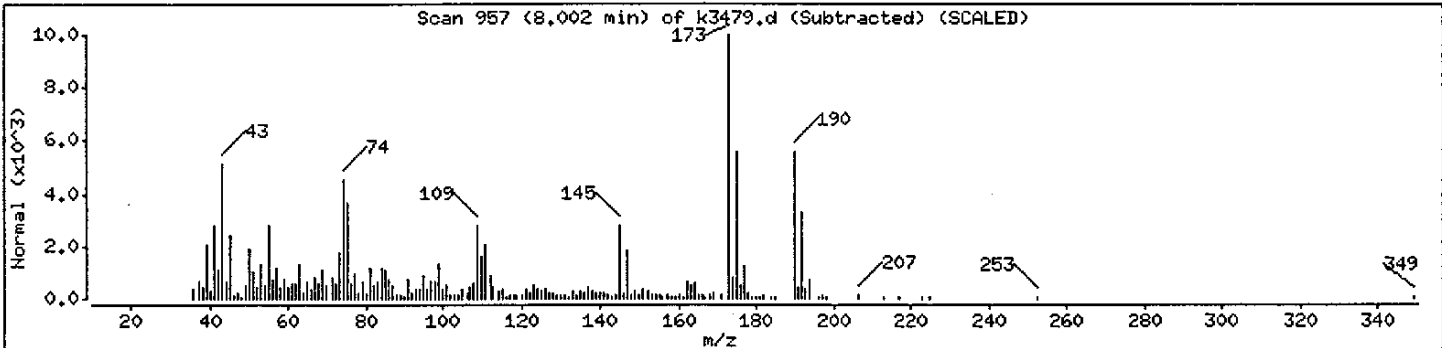
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzoic acid, 2,4-dichloro-	50-84-0	NBS75K.1	20161	95	C7H4Cl2O2	190
Benzoic acid, 2,3-dichloro-	50-45-3	NBS75K.1	20158	95	C7H4Cl2O2	190
Benzoic acid, 2,5-dichloro-	50-79-3	NBS75K.1	20159	92	C7H4Cl2O2	190



Date : 02-JUN-2004 22:27

Client ID: 01-MW-12

Instrument: K.i

Sample Info: GGTE31AC,,D4E210325-002

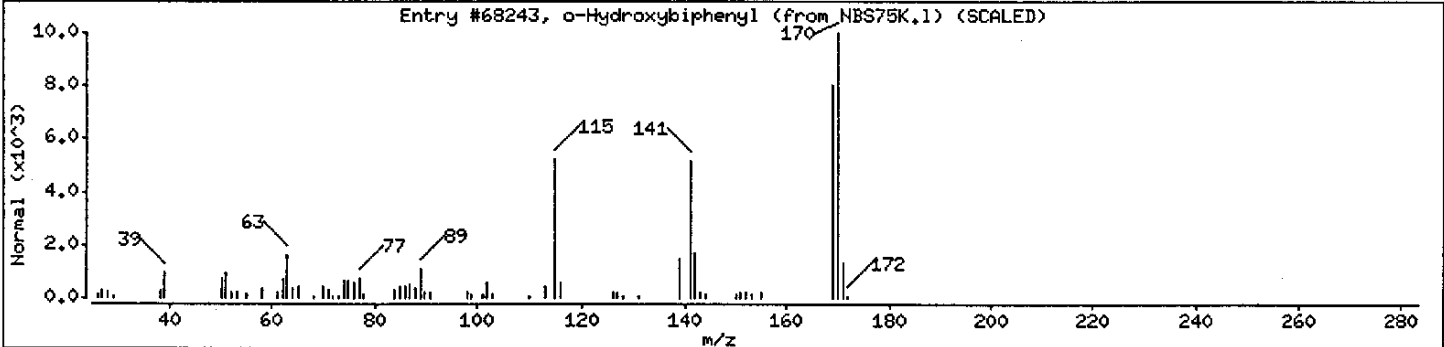
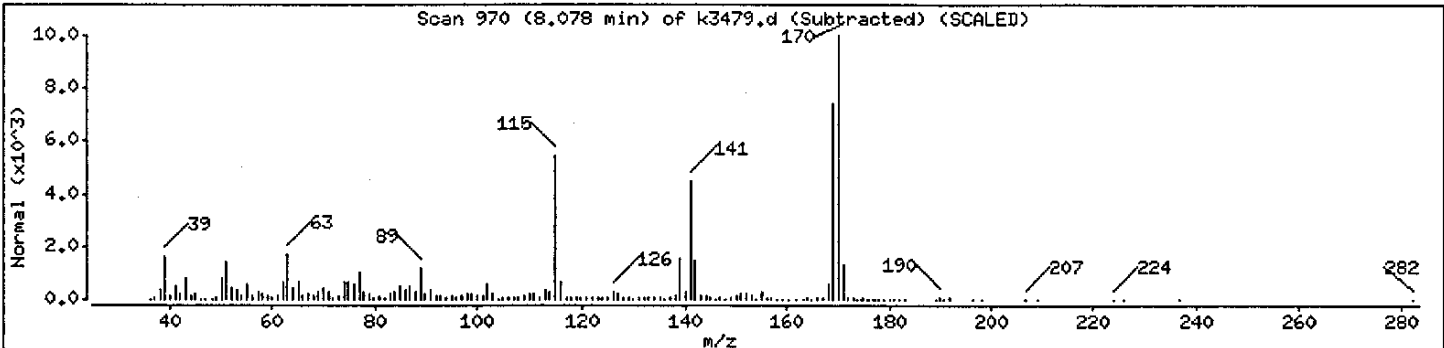
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
o-Hydroxybiphenyl	90-43-7	NBS75K,1	68243	98	C12H10O	170



Date : 02-JUN-2004 22:27

Client ID: 01-MW-12

Instrument: K.i

Sample Info: GGT31AC,,D4E210325-002

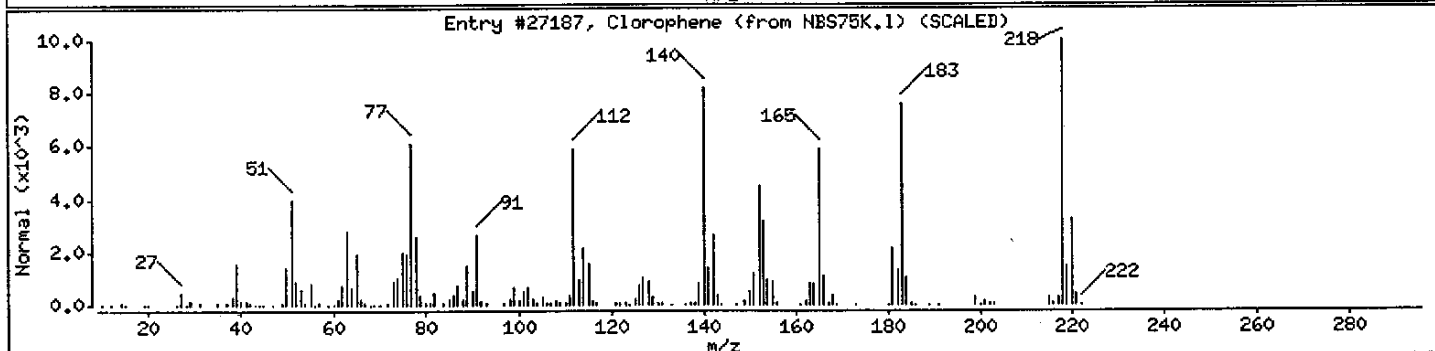
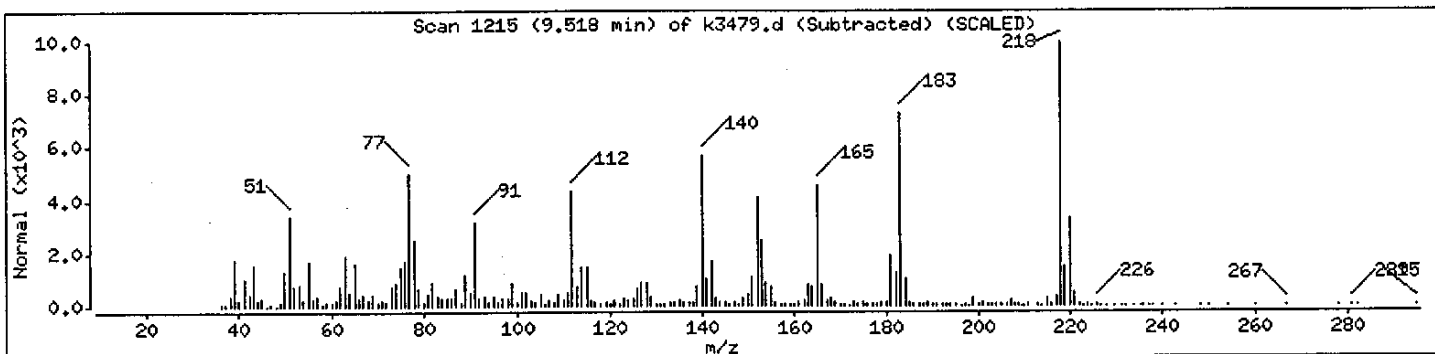
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Clorophene	120-32-1	NBS75K.1	27187	87	C13H11ClO	218



Date : 02-JUN-2004 22:27

Client ID: 01-MW-12

Instrument: K.i

Sample Info: GGTE31AC,,D4E210325-002

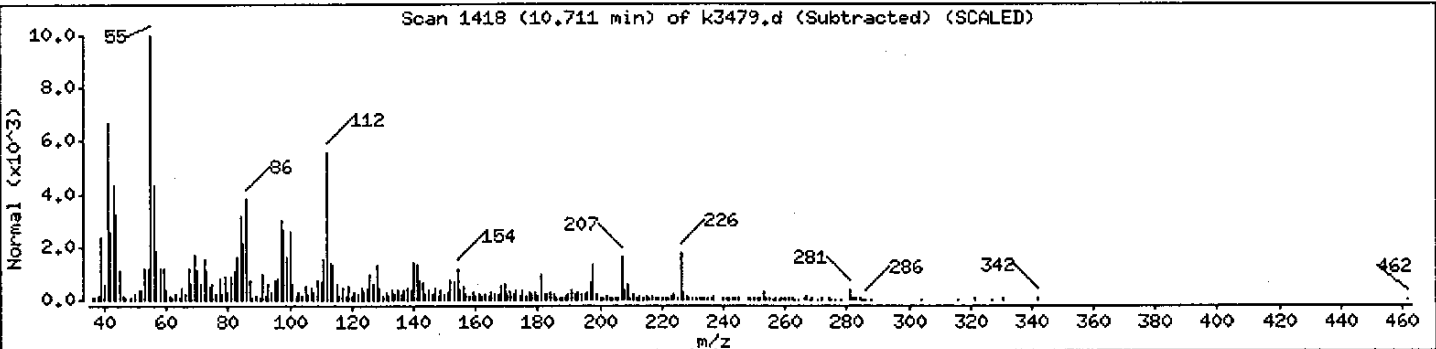
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



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*JMP*  
*6/3/04*

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/K.i/060204.b/k3480.d  
 Lab Smp Id: GGTE61AC Client Smp ID: 01-MW-04  
 Inj Date : 02-JUN-2004 22:50  
 Operator : petersonj Inst ID: K.i  
 Smp Info : GGTE61AC,,D4E210325-003  
 Misc Info : 4145234  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/K.i/060204.b/8270C.m  
 Meth Date : 03-Jun-2004 11:53 petersoj Quant Type: ISTD  
 Cal Date : 31-MAY-2004 17:57 Cal File: k3410.d  
 Als bottle: 17  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: HSL+AP9.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1024.00000	volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/ml)	FINAL (ug/L)
* 22 1,4-Dichlorobenzene-d4	152			5.070	5.070	(1.000)	97934	40.0000	
* 49 Naphthalene-d8	136			6.275	6.281	(1.000)	388158	40.0000	
* 83 Acenaphthene-d10	164			7.973	7.973	(1.000)	241368	40.0000	
* 117 Phenanthrene-d10	188			9.207	9.212	(1.000)	446053	40.0000	
* 142 Chrysene-d12	240			11.310	11.357	(1.000)	495021	40.0000	
* 151 Perylene-d12	264			12.791	12.861	(1.000)	441067	40.0000	
\$ 36 Nitrobenzene-d5	82			5.605	5.611	(1.105)	241864	61.6172	60.1730
\$ 70 2-Fluorobiphenyl	172			7.326	7.326	(0.919)	381618	52.1199	50.8984
\$ 133 Terphenyl-d14	244			10.423	10.446	(0.922)	511720	61.2515	59.8159
\$ 10 2-Fluorophenol	112			3.995	3.995	(0.788)	264572	82.1849	80.2587
\$ 14 Phenol-d5	99			4.747	4.753	(0.936)	353016	86.8920	84.8555
\$ 103 2,4,6-Tribromophenol	330			8.660	8.660	(0.941)	94654	95.6871	93.4444
\$ 163 1,2-Dichlorobenzene-d4	152			5.246	5.252	(1.035)	104800	52.2513	51.0266
\$ 162 2-Chlorophenol-d4	132			4.900	4.906	(0.966)	264726	88.7988	86.7176
4 N-Nitrosodimethylamine	74								Compound Not Detected.

Compounds	QUANT SIG	RT	EXP	RT	REL	RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/ml)	FINAL ( ug/L)
5 Pyridine	79						Compound Not Detected.		
7 2-Picoline	93						Compound Not Detected.		
8 N-Nitrosomethylethylamine	88						Compound Not Detected.		
9 Methyl methanesulfonate	80						Compound Not Detected.		
11 N-Nitrosodiethylamine	102						Compound Not Detected.		
13 Ethyl methanesulfonate	79						Compound Not Detected.		
15 Phenol	94						Compound Not Detected.		
16 Aniline	93						Compound Not Detected.		
19 Pentachloroethane	117						Compound Not Detected.		
18 Bis(2-chloroethyl) ether	93						Compound Not Detected.		
20 2-Chlorophenol	128						Compound Not Detected.		
21 1,3-Dichlorobenzene	146						Compound Not Detected.		
23 1,4-Dichlorobenzene	146						Compound Not Detected.		
25 1,2-Dichlorobenzene	146						Compound Not Detected.		
24 Benzyl alcohol	108						Compound Not Detected.		
26 2-Methylphenol	108						Compound Not Detected.		
28 2,2'-oxybis(1-chloropropane)	45						Compound Not Detected.		
29 4-Methylphenol	108						Compound Not Detected.		
31 N-Nitrosopyrrolidine	100						Compound Not Detected.		
32 Acetophenone	105						Compound Not Detected.		
34 N-Nitrosomorpholine	116						Compound Not Detected.		
35 o-Toluidine	106						Compound Not Detected.		
30 N-nitrosodi-n-propylamine	70						Compound Not Detected.		
33 Hexachloroethane	117						Compound Not Detected.		
37 Nitrobenzene	77						Compound Not Detected.		
39 N-Nitrosopiperidine	114						Compound Not Detected.		
40 Isophorone	82						Compound Not Detected.		
41 2-Nitrophenol	139						Compound Not Detected.		
44 O,O,O-Triethyl phosphorothio	198						Compound Not Detected.		
42 2,4-Dimethylphenol	107						Compound Not Detected.		
43 Bis(2-chloroethoxy)methane	93						Compound Not Detected.		
45 Benzoic acid	122						Compound Not Detected.		
48 a,a-Dimethylphenethylamine	58						Compound Not Detected.		
46 2,4-Dichlorophenol	162						Compound Not Detected.		
47 1,2,4-Trichlorobenzene	180						Compound Not Detected.		
53 2,6-Dichlorophenol	162						Compound Not Detected.		
54 Hexachloropropene	213						Compound Not Detected.		
50 Naphthalene	128						Compound Not Detected.		
51 4-Chloroaniline	127						Compound Not Detected.		
52 Hexachlorobutadiene	225						Compound Not Detected.		
57 N-Nitrosodi-n-butylamine	84						Compound Not Detected.		
58 p-Phenylenediamine	108						Compound Not Detected.		
61 Safrole	162						Compound Not Detected.		
59 4-Chloro-3-methylphenol	107						Compound Not Detected.		
62 2-Methylnaphthalene	142						Compound Not Detected.		
64 1-Methylnaphthalene	142						Compound Not Detected.		
65 1,2,4,5-Tetrachlorobenzene	216						Compound Not Detected.		



Compounds	QUANT SIG	RT	EXP	RT	REL	RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/ml)	FINAL (ug/L)
63 Hexachlorocyclopentadiene	237								
66 Isosafrole (#1)	162								
72 Isosafrole (#2)	104								
73 1-Chloronaphthalene	162								
71 2-Chloronaphthalene	162								
67 2,4,6-Trichlorophenol	196								
68 2,4,5-Trichlorophenol	196								
75 1,4-Naphthoquinone	158								
74 2-Nitroaniline	65								
78 1,4-Dinitrobenzene	168								
80 1,3-Dinitrobenzene	168								
76 Dimethyl phthalate	163								
79 2,6-Dinitrotoluene	165								
81 Acenaphthylene	152								
82 3-Nitroaniline	138								
84 Acenaphthene	153								
89 Pentachlorobenzene	250								
85 2,4-Dinitrophenol	184								
86 4-Nitrophenol	109								
87 2,4-Dinitrotoluene	165								
88 Dibenzofuran	168								
90 1-Naphthylamine	143								
91 2,3,4,6-Tetrachlorophenol	232								
92 2-Naphthylamine	143								
98 Thionazin	97								
93 Diethyl phthalate	149								
100 5-Nitro-o-toluidine	152								
96 Fluorene	166								
95 4-Chlorophenyl phenyl ether	204								
97 4-Nitroaniline	138								
99 4,6-Dinitro-2-methylphenol	198								
101 N-nitrosodiphenylamine	169								
182 Diphenylamine	169								
102 Azobenzene	77								
104 Sulfotepp	97								
105 1,3,5-Trinitrobenzene	213								
107 Phorate	121								
109 Phenacetin	108								
106 Diallate (#1)	86								
111 Diallate (#2)	86								
108 4-Bromophenyl phenyl ether	248								
110 Hexachlorobenzene	284								
112 Dimethoate	87								
114 4-Aminobiphenyl	169								
115 Pentachloronitrobenzene	237								
116 Pronamide	173								
113 Pentachlorophenol	266								

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
=====	====	==	=====	=====	=====	=====	=====
120 2-secbutyl-4,6-dinitropheno	211		Compound	Not	Detected.		
121 Disulfoton	88		Compound	Not	Detected.		
118 Phenanthrene	178		Compound	Not	Detected.		
122 Anthracene	178		Compound	Not	Detected.		
123 Carbazole	167		Compound	Not	Detected.		
124 Methyl parathion	109		Compound	Not	Detected.		
125 Di-n-butyl phthalate	149		Compound	Not	Detected.		
126 Parathion	109		Compound	Not	Detected.		
127 4-Nitroquinoline-1-oxide	190		Compound	Not	Detected.		
128 Methapyrilene	97		Compound	Not	Detected.		
129 Isodrin	193		Compound	Not	Detected.		
130 Fluoranthene	202		Compound	Not	Detected.		
131 Benzidine	184		Compound	Not	Detected.		
132 Pyrene	202		Compound	Not	Detected.		
134 Aramite (#1)	185		Compound	Not	Detected.		
135 Aramite (#2)	185		Compound	Not	Detected.		
136 p-Dimethylaminoazobenzene	120		Compound	Not	Detected.		
138 3,3'-Dimethylbenzidine	212		Compound	Not	Detected.		
137 Butyl benzyl phthalate	149		Compound	Not	Detected.		
139 2-Acetylaminofluorene	181		Compound	Not	Detected.		
140 3 3'-Dichlorobenzidine	252		Compound	Not	Detected.		
143 Bis(2-ethylhexyl) phthalate	149		Compound	Not	Detected.		
141 Benzo(a)anthracene	228		Compound	Not	Detected.		
144 Chrysene	228		Compound	Not	Detected.		
146 Di-n-octyl phthalate	149		Compound	Not	Detected.		
149 7,12-Dimethylbenz(a)anthrac	256		Compound	Not	Detected.		
147 Benzo(b)fluoranthene	252		Compound	Not	Detected.		
148 Benzo(k)fluoranthene	252		Compound	Not	Detected.		
150 Benzo(a)pyrene	252		Compound	Not	Detected.		
152 3-Methylcholanthrene	268		Compound	Not	Detected.		
153 Dibenz(a,j)acridine	279		Compound	Not	Detected.		
155 Indeno(1,2,3-cd)pyrene	276		Compound	Not	Detected.		
156 Dibenz(a,h)anthracene	278		Compound	Not	Detected.		
157 Benzo(g,h,i)perylene	276		Compound	Not	Detected.		
M 1 Total Isosafrole	162		Compound	Not	Detected.		
M 2 Total Diallate	86		Compound	Not	Detected.		
M 3 Total Aramite	185		Compound	Not	Detected.		
165 Chlorobenzilate	251		Compound	Not	Detected.		
168 Methyl Styrene	118		Compound	Not	Detected.		
27 1H-Indene	116		Compound	Not	Detected.		
199 1,4-Dioxane	88	2.691	2.691	(0.531)	98916	59.6125	58.2153
175 Biphenyl	154		Compound	Not	Detected.		
183 Hexachlorophene	196		Compound	Not	Detected.		
204 Atrazine	200		Compound	Not	Detected.		
205 Caprolactam	55		Compound	Not	Detected.		

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: K.i  
 Lab File ID: k3480.d  
 Lab Smp Id: GGTE61AC  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: petersonj  
 Method File: /chem/K.i/060204.b/8270C.m  
 Misc Info: 4145234

Calibration Date: 02-JUN-2004  
 Calibration Time: 17:18  
 Client Smp ID: 01-MW-04  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	101139	50570	202278	97934	-3.17
49 Naphthalene-d8	372641	186320	745282	388158	4.16
83 Acenaphthene-d10	249760	124880	499520	241368	-3.36
117 Phenanthrene-d10	498914	249457	997828	446053	-10.60
142 Chrysene-d12	578954	289477	1157908	495021	-14.50
151 Perylene-d12	517217	258608	1034434	441067	-14.72

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.07	4.57	5.57	5.07	0.00
49 Naphthalene-d8	6.28	5.78	6.78	6.27	-0.09
83 Acenaphthene-d10	7.97	7.47	8.47	7.97	0.00
117 Phenanthrene-d10	9.21	8.71	9.71	9.21	-0.06
142 Chrysene-d12	11.36	10.86	11.86	11.31	-0.41
151 Perylene-d12	12.86	12.36	13.36	12.79	-0.55

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.

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RECOVERY REPORT

Client Name: Cabrera Services  
Sample Matrix: LIQUID  
Lab Smp Id: GGTE61AC  
Level: LOW  
Data Type: MS DATA  
SpikeList File: 9HSOIL.spk  
Sublist File: HSL+AP9.sub  
Method File: /chem/K.i/060204.b/8270C.m  
Misc Info: 4145234

Client SDG: D4E210325  
Fraction: SV  
Client Smp ID: 01-MW-04  
Operator: petersonj  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	97.6562	60.1730	61.62	53-107
\$ 70 2-Fluorobiphenyl	97.6562	50.8984	52.12	31-105
\$ 133 Terphenyl-d14	97.6562	59.8159	61.25	21-125
\$ 10 2-Fluorophenol	146.484	80.2587	54.79	32-116
\$ 14 Phenol-d5	146.484	84.8555	57.93	40-111
\$ 103 2,4,6-Tribromophen	146.484	93.4444	63.79	42-122
\$ 163 1,2-Dichlorobenzen	97.6562	51.0266	52.25	20-130
\$ 162 2-Chlorophenol-d4	146.484	86.7176	59.20	20-130

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TENTATIVELY IDENTIFIED COMPOUNDS

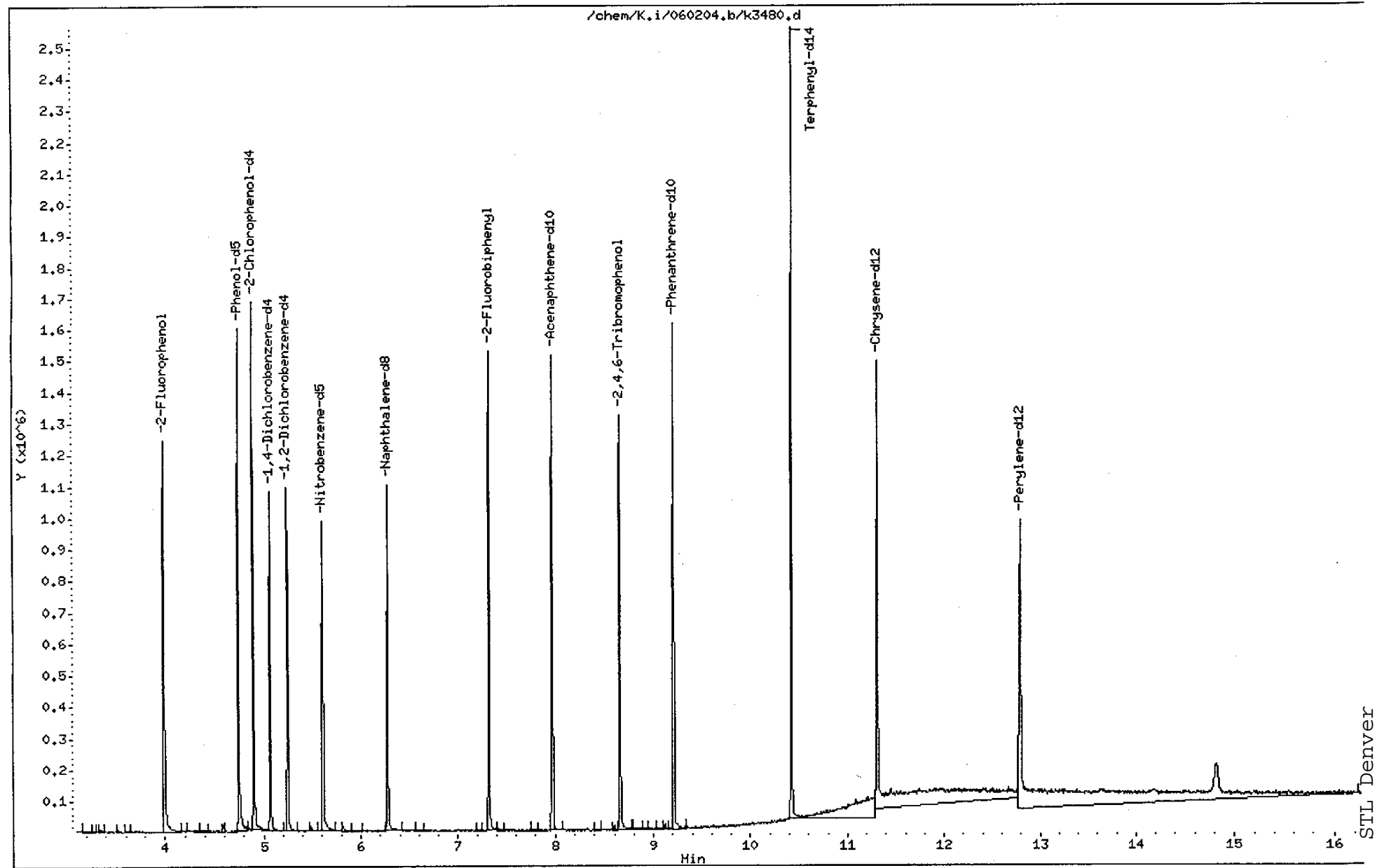
Client Name: Cabrera Services                      Client SDG: D4E210325  
Lab Smp Id: GGTE61AC                                Client Smp ID: 01-MW-04  
Operator : petersonj                                Sample Date: 19-MAY-2004  
Sample Location: USDA National Disease Center    Sample Point: e Center  
Sample Matrix: WATER                                Date Received: 21-MAY-2004 00:00  
Analysis Type: SV                                    Level: LOW

Number TICs found: 1                                CONCENTRATION UNITS:  
    (ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	2.456	5.62258	J

Data File: /chem/K.i/060204,b/k3480,d  
Date : 02-JUN-2004 22:50  
Client ID: 01-MW-04  
Sample Info: GGTE61AC,,D4E210325-003  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

Instrument: K.i  
Operator: petersonj  
Column diameter: 0.25



Date : 02-JUN-2004 22:50

Client ID: 01-MW-04

Instrument: K.i

Sample Info: CGTE61AC,,D4E210325-003

Volume Injected (uL): 0.5

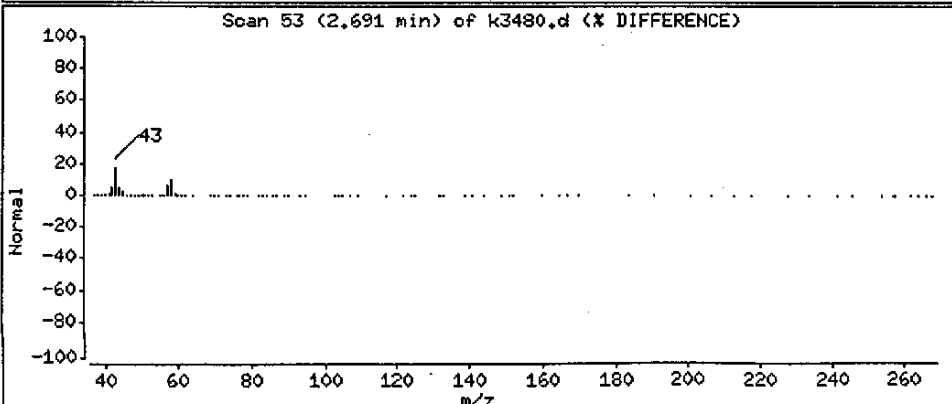
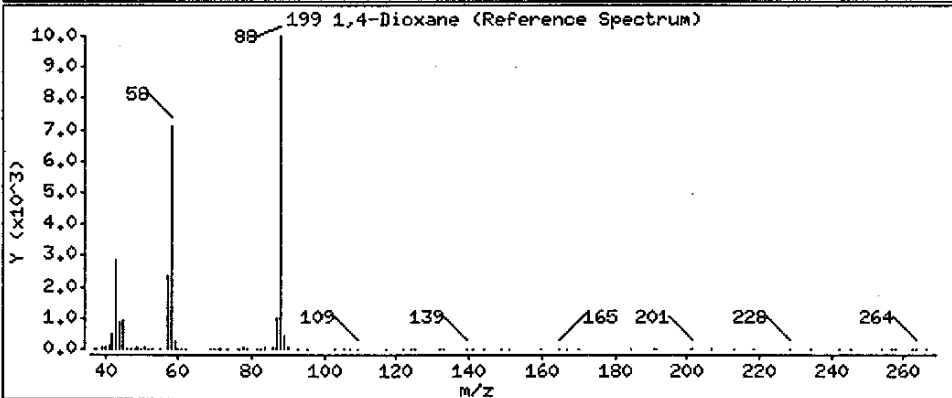
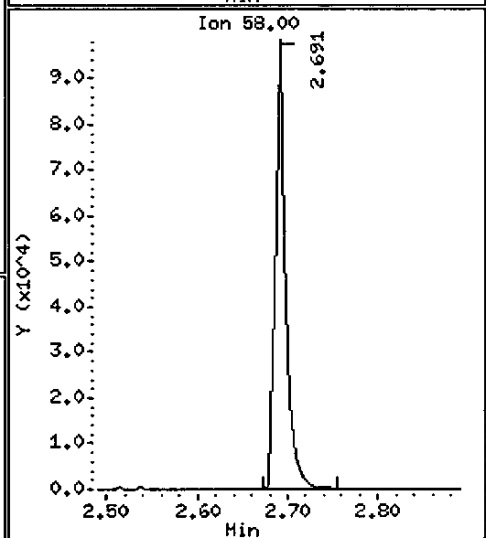
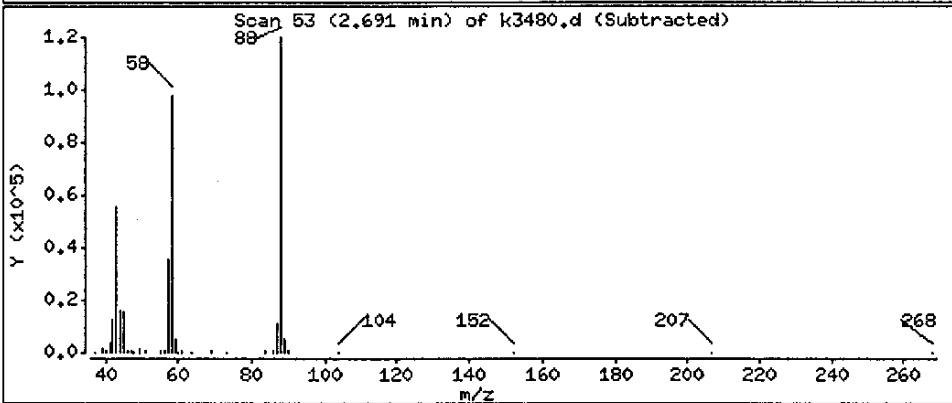
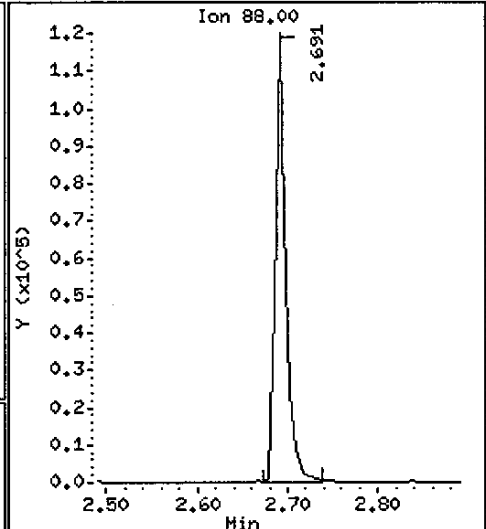
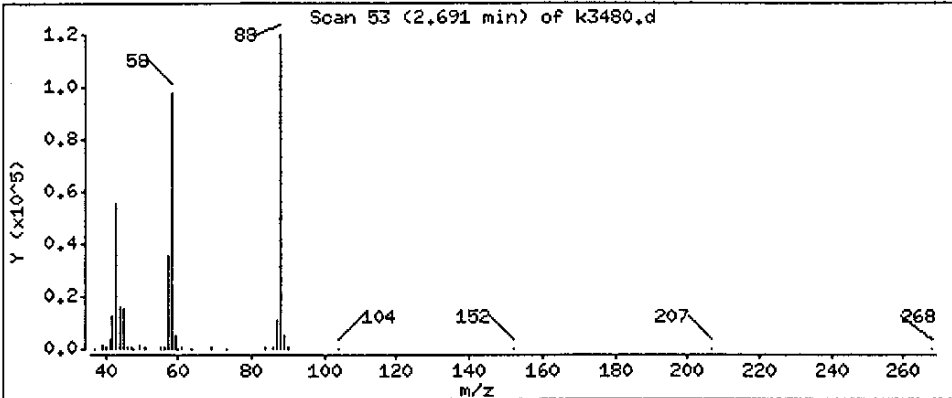
Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

199 1,4-Dioxane

Concentration: 58.2153 ug/L



Date : 02-JUN-2004 22:50

Client ID: 01-MW-04

Instrument: K.i

Sample Info: GGTE61AC,,D4E210325-003

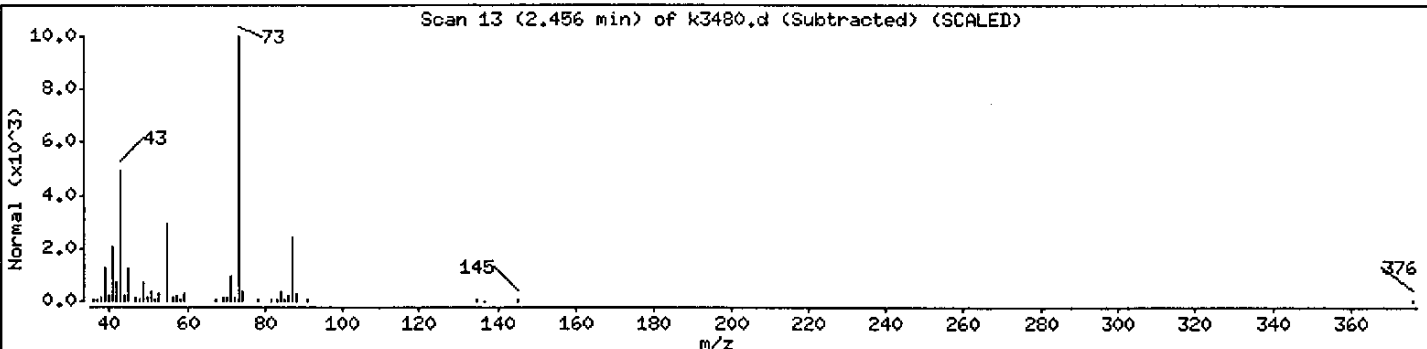
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0





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*Handwritten signature*  
 06/3/04

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/K.i/060204.b/k3481.d  
 Lab Smp Id: GGTE71AC Client Smp ID: 01-MW-07  
 Inj Date : 02-JUN-2004 23:13  
 Operator : petersonj Inst ID: K.i  
 Smp Info : GGTE71AC,,D4E210325-004  
 Misc Info : 4145234  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/K.i/060204.b/8270C.m  
 Meth Date : 03-Jun-2004 11:53 peterso Quant Type: ISTD  
 Cal Date : 31-MAY-2004 17:57 Cal File: k3410.d  
 Als bottle: 18  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: HSL+AP9.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	969.00000	volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/ml)	FINAL (ug/L)
* 22 1,4-Dichlorobenzene-d4	152			5.070	5.070	(1.000)	91912	40.0000	
* 49 Naphthalene-d8	136			6.275	6.281	(1.000)	338867	40.0000	
* 83 Acenaphthene-d10	164			7.973	7.973	(1.000)	210731	40.0000	
* 117 Phenanthrene-d10	188			9.207	9.212	(1.000)	396379	40.0000	
* 142 Chrysene-d12	240			11.328	11.357	(1.000)	441044	40.0000	
* 151 Perylene-d12	264			12.814	12.861	(1.000)	394136	40.0000	
\$ 36 Nitrobenzene-d5	82			5.605	5.611	(1.105)	314952	85.4941	88.2292
\$ 70 2-Fluorobiphenyl	172			7.326	7.326	(0.919)	460065	71.9690	74.2714
\$ 133 Terphenyl-d14	244			10.429	10.446	(0.921)	625616	84.0493	86.7382
\$ 10 2-Fluorophenol	112			3.995	3.995	(0.788)	354280	117.262	121.013
\$ 14 Phenol-d5	99			4.747	4.753	(0.936)	462292	121.245	125.124
\$ 103 2,4,6-Tribromophenol	330			8.660	8.660	(0.941)	120549	137.137	141.524
\$ 163 1,2-Dichlorobenzene-d4	152			5.246	5.252	(1.035)	129613	68.8566	71.0594
\$ 162 2-Chlorophenol-d4	132			4.900	4.906	(0.966)	343224	122.673	126.598
4 N-Nitrosodimethylamine	74								Compound Not Detected.

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
=====	====	==	=====	=====	=====	=====	=====
5 Pyridine	79		Compound	Not	Detected.		
7 2-Picoline	93		Compound	Not	Detected.		
8 N-Nitrosomethylethylamine	88		Compound	Not	Detected.		
9 Methyl methanesulfonate	80		Compound	Not	Detected.		
11 N-Nitrosodiethylamine	102		Compound	Not	Detected.		
13 Ethyl methanesulfonate	79		Compound	Not	Detected.		
15 Phenol	94		Compound	Not	Detected.		
16 Aniline	93		Compound	Not	Detected.		
19 Pentachloroethane	117		Compound	Not	Detected.		
18 Bis(2-chloroethyl) ether	93		Compound	Not	Detected.		
20 2-Chlorophenol	128		Compound	Not	Detected.		
21 1,3-Dichlorobenzene	146		Compound	Not	Detected.		
23 1,4-Dichlorobenzene	146		Compound	Not	Detected.		
25 1,2-Dichlorobenzene	146		Compound	Not	Detected.		
24 Benzyl alcohol	108		Compound	Not	Detected.		
26 2-Methylphenol	108		Compound	Not	Detected.		
28 2,2'-oxybis(1-chloropropane)	45		Compound	Not	Detected.		
29 4-Methylphenol	108		Compound	Not	Detected.		
31 N-Nitrosopyrrolidine	100		Compound	Not	Detected.		
32 Acetophenone	105		Compound	Not	Detected.		
34 N-Nitrosomorpholine	116		Compound	Not	Detected.		
35 o-Toluidine	106		Compound	Not	Detected.		
30 N-nitrosodi-n-propylamine	70		Compound	Not	Detected.		
33 Hexachloroethane	117		Compound	Not	Detected.		
37 Nitrobenzene	77		Compound	Not	Detected.		
39 N-Nitrosopiperidine	114		Compound	Not	Detected.		
40 Isophorone	82		Compound	Not	Detected.		
41 2-Nitrophenol	139		Compound	Not	Detected.		
44 O,O,O-Triethyl phosphorothio	198		Compound	Not	Detected.		
42 2,4-Dimethylphenol	107		Compound	Not	Detected.		
43 Bis(2-chloroethoxy)methane	93		Compound	Not	Detected.		
45 Benzoic acid	122		Compound	Not	Detected.		
48 a,a-Dimethylphenethylamine	58		Compound	Not	Detected.		
46 2,4-Dichlorophenol	162		Compound	Not	Detected.		
47 1,2,4-Trichlorobenzene	180		Compound	Not	Detected.		
53 2,6-Dichlorophenol	162		Compound	Not	Detected.		
54 Hexachloropropene	213		Compound	Not	Detected.		
50 Naphthalene	128		Compound	Not	Detected.		
51 4-Chloroaniline	127		Compound	Not	Detected.		
52 Hexachlorobutadiene	225		Compound	Not	Detected.		
57 N-Nitrosodi-n-butylamine	84		Compound	Not	Detected.		
58 p-Phenylenediamine	108		Compound	Not	Detected.		
61 Safrole	162		Compound	Not	Detected.		
59 4-Chloro-3-methylphenol	107		Compound	Not	Detected.		
62 2-Methylnaphthalene	142		Compound	Not	Detected.		
64 1-Methylnaphthalene	142		Compound	Not	Detected.		
65 1,2,4,5-Tetrachlorobenzene	216		Compound	Not	Detected.		

Compounds	QUANT SIG MASS	RT	EXP	RT	REL	RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/ml)	FINAL ( ug/L)
=====	=====	==	=====	=====	=====	=====	=====	=====	=====
63 Hexachlorocyclopentadiene	237						Compound Not Detected.		
66 Isosafrole (#1)	162						Compound Not Detected.		
72 Isosafrole (#2)	104						Compound Not Detected.		
73 1-Chloronaphthalene	162						Compound Not Detected.		
71 2-Chloronaphthalene	162						Compound Not Detected.		
67 2,4,6-Trichlorophenol	196						Compound Not Detected.		
68 2,4,5-Trichlorophenol	196						Compound Not Detected.		
75 1,4-Naphthoquinone	158						Compound Not Detected.		
74 2-Nitroaniline	65						Compound Not Detected.		
78 1,4-Dinitrobenzene	168						Compound Not Detected.		
80 1,3-Dinitrobenzene	168						Compound Not Detected.		
76 Dimethyl phthalate	163						Compound Not Detected.		
79 2,6-Dinitrotoluene	165						Compound Not Detected.		
81 Acenaphthylene	152						Compound Not Detected.		
82 3-Nitroaniline	138						Compound Not Detected.		
84 Acenaphthene	153						Compound Not Detected.		
89 Pentachlorobenzene	250						Compound Not Detected.		
85 2,4-Dinitrophenol	184						Compound Not Detected.		
86 4-Nitrophenol	109						Compound Not Detected.		
87 2,4-Dinitrotoluene	165						Compound Not Detected.		
88 Dibenzofuran	168						Compound Not Detected.		
90 1-Naphthylamine	143						Compound Not Detected.		
91 2,3,4,6-Tetrachlorophenol	232						Compound Not Detected.		
92 2-Naphthylamine	143						Compound Not Detected.		
98 Thionazin	97						Compound Not Detected.		
93 Diethyl phthalate	149						Compound Not Detected.		
100 5-Nitro-o-toluidine	152						Compound Not Detected.		
96 Fluorene	166						Compound Not Detected.		
95 4-Chlorophenyl phenyl ether	204						Compound Not Detected.		
97 4-Nitroaniline	138						Compound Not Detected.		
99 4,6-Dinitro-2-methylphenol	198						Compound Not Detected.		
101 N-nitrosodiphenylamine	169						Compound Not Detected.		
182 Diphenylamine	169						Compound Not Detected.		
102 Azobenzene	77						Compound Not Detected.		
104 Sulfotepp	97						Compound Not Detected.		
105 1,3,5-Trinitrobenzene	213						Compound Not Detected.		
107 Phorate	121						Compound Not Detected.		
109 Phenacetin	108						Compound Not Detected.		
106 Diallate (#1)	86						Compound Not Detected.		
111 Diallate (#2)	86						Compound Not Detected.		
108 4-Bromophenyl phenyl ether	248						Compound Not Detected.		
110 Hexachlorobenzene	284						Compound Not Detected.		
112 Dimethoate	87						Compound Not Detected.		
114 4-Aminobiphenyl	169						Compound Not Detected.		
115 Pentachloronitrobenzene	237						Compound Not Detected.		
116 Pronamide	173						Compound Not Detected.		
113 Pentachlorophenol	266						Compound Not Detected.		

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL (ug/L)
120 2-secbutyl-4,6-dinitropheno	211				Compound Not Detected.		
121 Disulfoton	88				Compound Not Detected.		
118 Phenanthrene	178				Compound Not Detected.		
122 Anthracene	178				Compound Not Detected.		
123 Carbazole	167				Compound Not Detected.		
124 Methyl parathion	109				Compound Not Detected.		
125 Di-n-butyl phthalate	149				Compound Not Detected.		
126 Parathion	109				Compound Not Detected.		
127 4-Nitroquinoline-1-oxide	190				Compound Not Detected.		
128 Methapyrilene	97				Compound Not Detected.		
129 Isodrin	193				Compound Not Detected.		
130 Fluoranthene	202				Compound Not Detected.		
131 Benzidine	184				Compound Not Detected.		
132 Pyrene	202				Compound Not Detected.		
134 Aramite (#1)	185				Compound Not Detected.		
135 Aramite (#2)	185				Compound Not Detected.		
136 p-Dimethylaminoazobenzene	120				Compound Not Detected.		
138 3,3'-Dimethylbenzidine	212				Compound Not Detected.		
137 Butyl benzyl phthalate	149				Compound Not Detected.		
139 2-Acetylaminofluorene	181				Compound Not Detected.		
140 3,3'-Dichlorobenzidine	252				Compound Not Detected.		
143 Bis(2-ethylhexyl) phthalate	149				Compound Not Detected.		
141 Benzo(a)anthracene	228				Compound Not Detected.		
144 Chrysene	228				Compound Not Detected.		
146 Di-n-octyl phthalate	149				Compound Not Detected.		
149 7,12-Dimethylbenz(a)anthrac	256				Compound Not Detected.		
147 Benzo(b)fluoranthene	252				Compound Not Detected.		
148 Benzo(k)fluoranthene	252				Compound Not Detected.		
150 Benzo(a)pyrene	252				Compound Not Detected.		
152 3-Methylcholanthrene	268				Compound Not Detected.		
153 Dibenz(a,j)acridine	279				Compound Not Detected.		
155 Indeno(1,2,3-cd)pyrene	276				Compound Not Detected.		
156 Dibenz(a,h)anthracene	278				Compound Not Detected.		
157 Benzo(g,h,i)perylene	276				Compound Not Detected.		
M 1 Total Isosafrole	162				Compound Not Detected.		
M 2 Total Diallate	86				Compound Not Detected.		
M 3 Total Aramite	185				Compound Not Detected.		
165 Chlorobenzilate	251				Compound Not Detected.		
168 Methyl Styrene	118				Compound Not Detected.		
27 1H-Indene	116				Compound Not Detected.		
199 1,4-Dioxane	88	2.702	2.691	(0.533)	3917944	2515.88	2596.37(A)
175 Biphenyl	154				Compound Not Detected.		
183 Hexachlorophene	196				Compound Not Detected.		
204 Atrazine	200				Compound Not Detected.		
205 Caprolactam	55				Compound Not Detected.		

QC Flag Legend

A - Target compound detected but, quantitated amount  
exceeded maximum amount.

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: K.i  
 Lab File ID: k3481.d  
 Lab Smp Id: GGTE71AC  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: petersonj  
 Method File: /chem/K.i/060204.b/8270C.m  
 Misc Info: 4145234

Calibration Date: 02-JUN-2004  
 Calibration Time: 17:18  
 Client Smp ID: 01-MW-07  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	101139	50570	202278	91912	-9.12
49 Naphthalene-d8	372641	186320	745282	338867	-9.06
83 Acenaphthene-d10	249760	124880	499520	210731	-15.63
117 Phenanthrene-d10	498914	249457	997828	396379	-20.55
142 Chrysene-d12	578954	289477	1157908	441044	-23.82
151 Perylene-d12	517217	258608	1034434	394136	-23.80

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.07	4.57	5.57	5.07	0.00
49 Naphthalene-d8	6.28	5.78	6.78	6.27	-0.09
83 Acenaphthene-d10	7.97	7.47	8.47	7.97	0.00
117 Phenanthrene-d10	9.21	8.71	9.71	9.21	-0.06
142 Chrysene-d12	11.36	10.86	11.86	11.33	-0.26
151 Perylene-d12	12.86	12.36	13.36	12.81	-0.37

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.

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RECOVERY REPORT

Client Name: Cabrera Services  
Sample Matrix: LIQUID  
Lab Smp Id: GGTE71AC  
Level: LOW  
Data Type: MS DATA  
SpikeList File: 9HSOIL.spk  
Sublist File: HSL+AP9.sub  
Method File: /chem/K.i/060204.b/8270C.m  
Misc Info: 4145234

Client SDG: D4E210325  
Fraction: SV  
Client Smp ID: 01-MW-07  
Operator: petersonj  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	103.199	88.2292	85.49	53-107
\$ 70 2-Fluorobiphenyl	103.199	74.2714	71.97	31-105
\$ 133 Terphenyl-d14	103.199	86.7382	84.05	21-125
\$ 10 2-Fluorophenol	154.799	121.013	78.17	32-116
\$ 14 Phenol-d5	154.799	125.124	80.83	40-111
\$ 103 2,4,6-Tribromophen	154.799	141.524	91.42	42-122
\$ 163 1,2-Dichlorobenzen	103.199	71.0594	68.86	20-130
\$ 162 2-Chlorophenol-d4	154.799	126.598	81.78	20-130

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TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Cabrera Services                      Client SDG: D4E210325  
Lab Smp Id: GGTE71AC                                Client Smp ID: 01-MW-07  
Operator : petersonj                                Sample Date: 19-MAY-2004  
Sample Location: USDA National Disease Center    Sample Point: e Center  
Sample Matrix: WATER                                Date Received: 21-MAY-2004 00:00  
Analysis Type: SV                                    Level: LOW

Number TICs found: 2

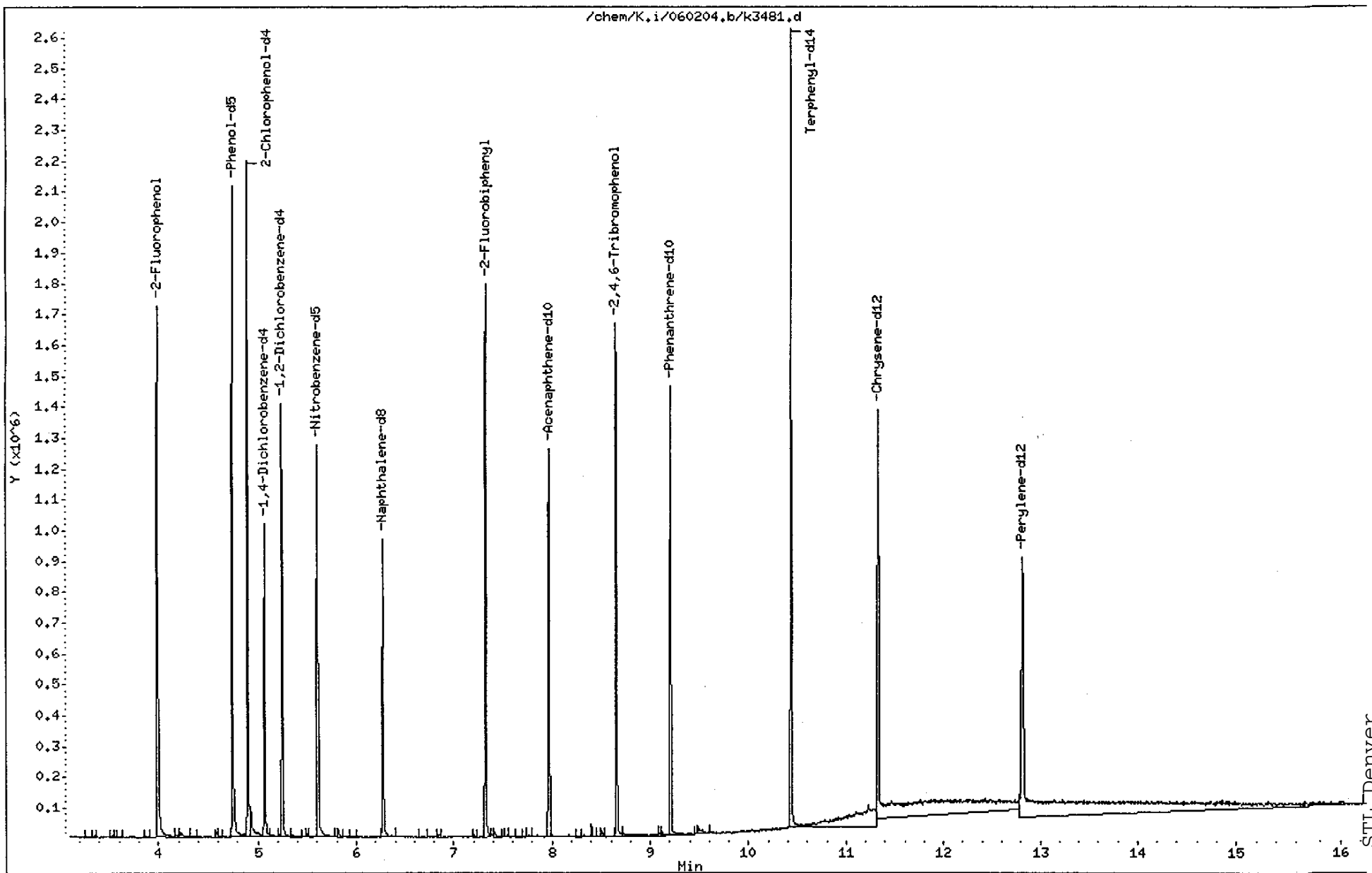
CONCENTRATION UNITS:  
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	2.456	12.6522	J
2.	Unknown	4.929	9.44003	J



Data File: /chem/K.i/060204,b/k3481,d  
Date : 02-JUN-2004 23:13  
Client ID: 01-MM-07  
Sample Info: GGTE71AC,,D4E210325-004  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

Instrument: K.i  
Operator: petersonj  
Column diameter: 0.25



Date : 02-JUN-2004 23:13

Client ID: 01-MW-07

Instrument: K.i

Sample Info: GGTE71AC,,D4E210325-004

Volume Injected (uL): 0.5

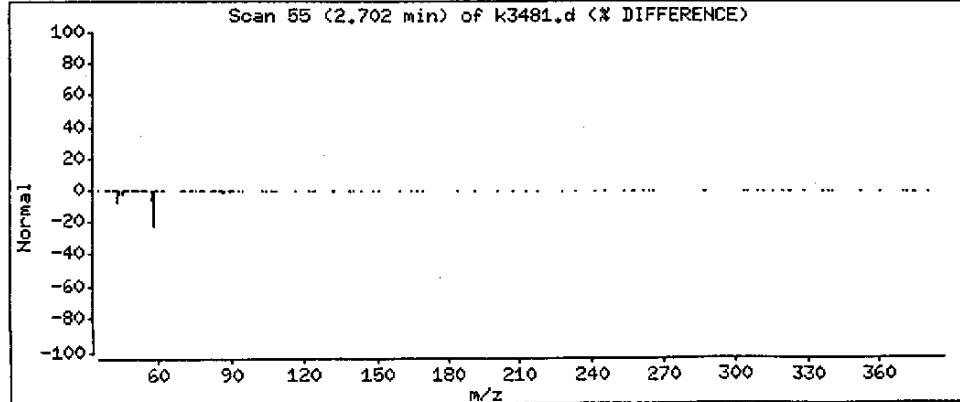
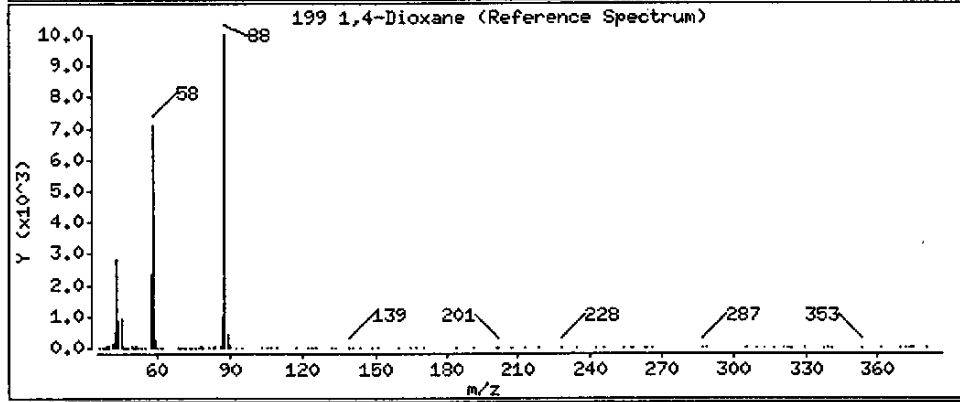
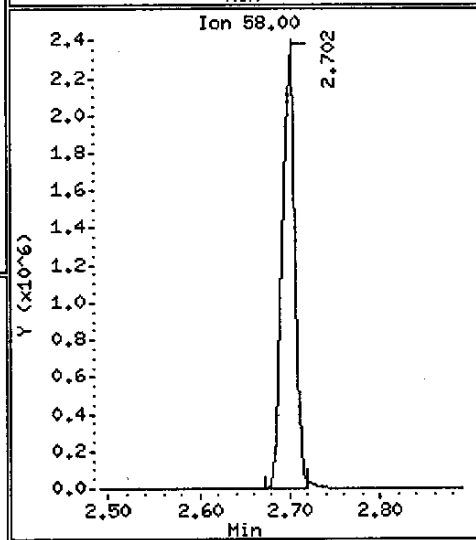
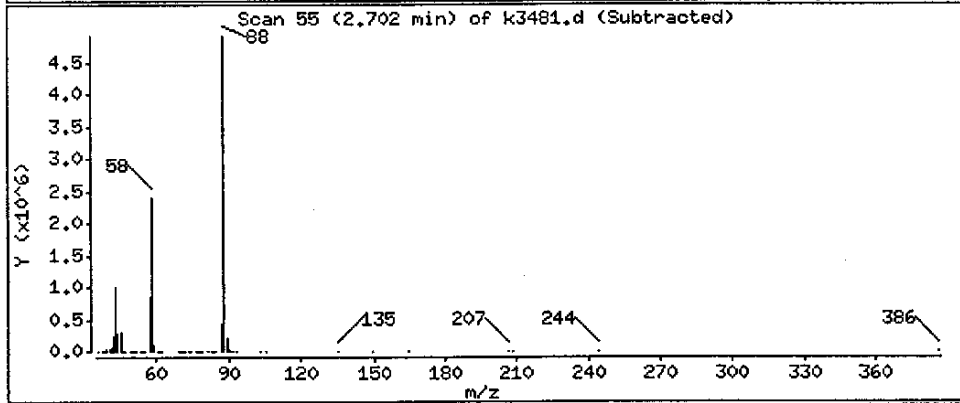
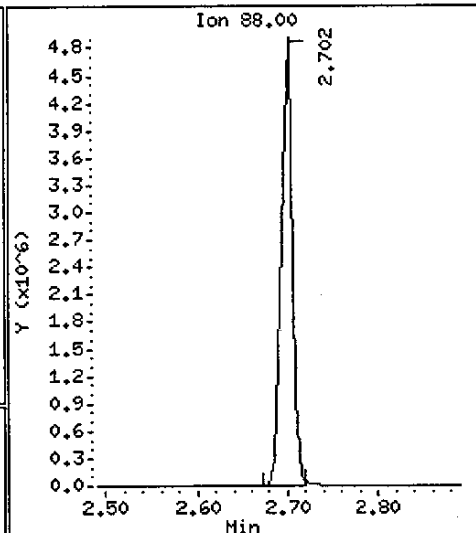
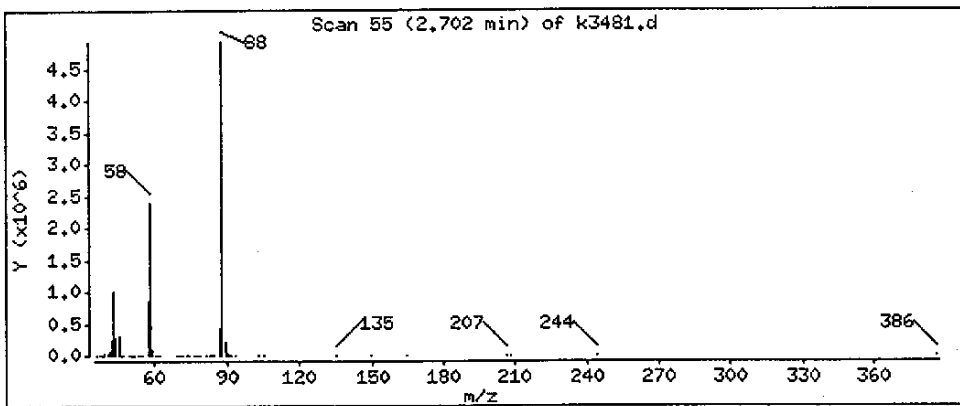
Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

199 1,4-Dioxane

Concentration: 2596.37 ug/L



Date : 02-JUN-2004 23:13

Client ID: 01-MW-07

Instrument: K.i

Sample Info: GGTE71AC,,D4E210325-004

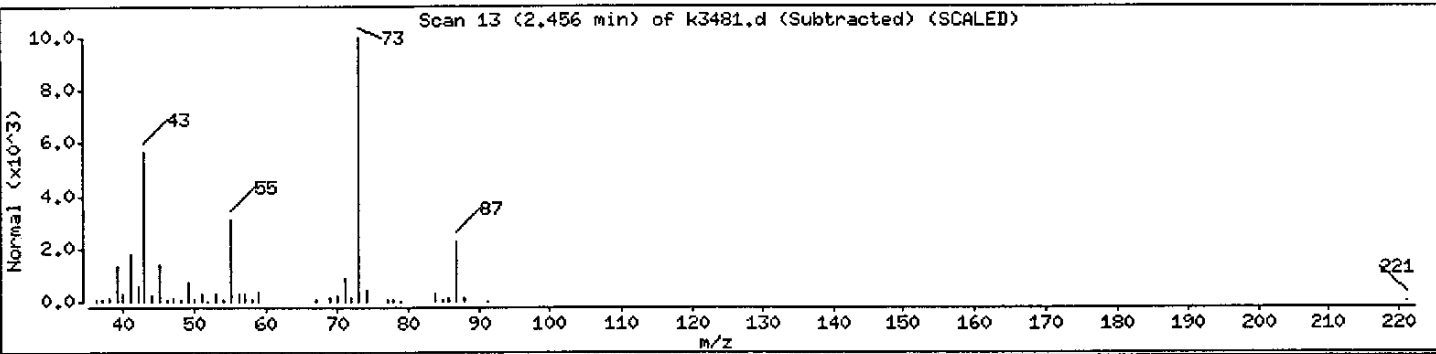
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Date : 02-JUN-2004 23:13

Client ID: 01-MW-07

Instrument: K.i

Sample Info: GGTE71AC,,D4E210325-004

Volume Injected (uL): 0.5

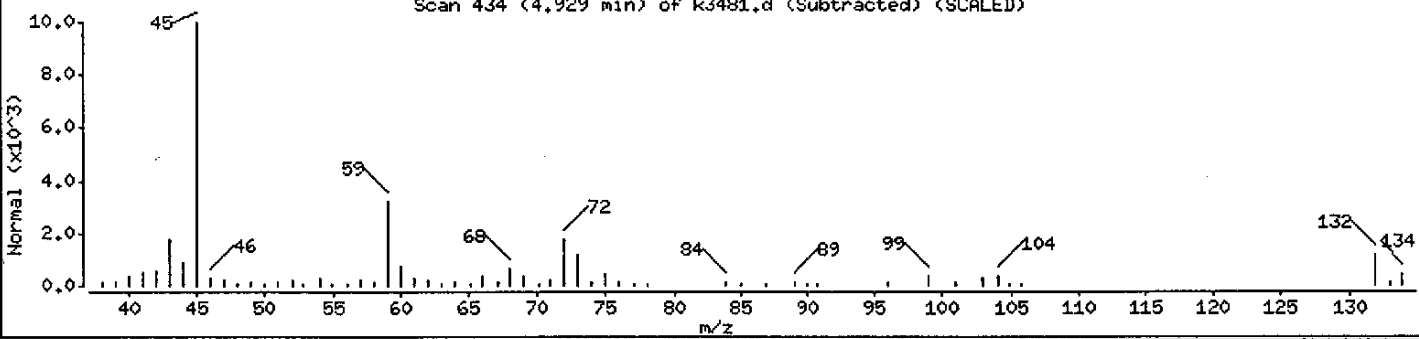
Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0

Scan 434 (4.929 min) of k3481.d (Subtracted) (SCALED)



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*Handwritten:* JML  
6/3/04

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/K.i/060204.b/k3482.d  
 Lab Smp Id: GGTFE1AC Client Smp ID: 01-MW-02  
 Inj Date : 02-JUN-2004 23:37  
 Operator : petersonj Inst ID: K.i  
 Smp Info : GGTFE1AC,,D4E210325-005  
 Misc Info : 4145234  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/K.i/060204.b/8270C.m  
 Meth Date : 03-Jun-2004 11:53 peterso Quant Type: ISTD  
 Cal Date : 31-MAY-2004 17:57 Cal File: k3410.d  
 Als bottle: 19  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: HSL+AP9.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1025.00000	volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	CONCENTRATIONS				
			ON-COLUMN	FINAL	RESPONSE	REL RT	EXP RT
	MASS		(ug/ml)	( ug/L)			
* 22 1,4-Dichlorobenzene-d4	152		40.0000		94199	5.070	5.070 (1.000)
* 49 Naphthalene-d8	136		40.0000		345190	6.280	6.281 (1.000)
* 83 Acenaphthene-d10	164		40.0000		216254	7.973	7.973 (1.000)
* 117 Phenanthrene-d10	188		40.0000		402201	9.207	9.212 (1.000)
* 142 Chrysene-d12	240		40.0000		455563	11.322	11.357 (1.000)
* 151 Perylene-d12	264		40.0000		397056	12.808	12.861 (1.000)
\$ 36 Nitrobenzene-d5	82		80.2676	82.2743	310632	5.605	5.611 (1.105)
\$ 70 2-Fluorobiphenyl	172		71.5118	73.2996	480852	7.326	7.326 (0.919)
\$ 133 Terphenyl-d14	244		79.9826	81.9822	630318	10.429	10.446 (0.921)
\$ 10 2-Fluorophenol	112		109.242	111.974	346721	3.995	3.995 (0.788)
\$ 14 Phenol-d5	99		114.908	117.781	460258	4.747	4.753 (0.936)
\$ 103 2,4,6-Tribromophenol	330		126.375	129.535	115539	8.660	8.660 (0.941)
\$ 163 1,2-Dichlorobenzene-d4	152		72.8769	74.6989	144109	5.246	5.252 (1.035)
\$ 162 2-Chlorophenol-d4	132		116.616	119.532	342757	4.900	4.906 (0.966)
4 N-Nitrosodimethylamine	74						Compound Not Detected.

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
5 Pyridine	79						
7 2-Picoline	93						
8 N-Nitrosomethylethylamine	88						
9 Methyl methanesulfonate	80						
11 N-Nitrosodiethylamine	102						
13 Ethyl methanesulfonate	79						
15 Phenol	94						
16 Aniline	93						
19 Pentachloroethane	117						
18 Bis(2-chloroethyl) ether	93						
20 2-Chlorophenol	128						
21 1,3-Dichlorobenzene	146						
23 1,4-Dichlorobenzene	146						
25 1,2-Dichlorobenzene	146						
24 Benzyl alcohol	108						
26 2-Methylphenol	108						
28 2,2'-oxybis(1-chloropropane)	45						
29 4-Methylphenol	108						
31 N-Nitrosopyrrolidine	100						
32 Acetophenone	105						
34 N-Nitrosomorpholine	116						
35 o-Toluidine	106						
30 N-nitrosodi-n-propylamine	70						
33 Hexachloroethane	117						
37 Nitrobenzene	77						
39 N-Nitrosopiperidine	114						
40 Isophorone	82						
41 2-Nitrophenol	139						
44 O,O,O-Triethyl phosphorothio	198						
42 2,4-Dimethylphenol	107						
43 Bis(2-chloroethoxy)methane	93						
45 Benzoic acid	122						
48 a,a-Dimethylphenethylamine	58						
46 2,4-Dichlorophenol	162						
47 1,2,4-Trichlorobenzene	180						
53 2,6-Dichlorophenol	162						
54 Hexachloropropene	213						
50 Naphthalene	128						
51 4-Chloroaniline	127						
52 Hexachlorobutadiene	225						
57 N-Nitrosodi-n-butylamine	84						
58 p-Phenylenediamine	108						
61 Safrole	162						
59 4-Chloro-3-methylphenol	107						
62 2-Methylnaphthalene	142						
64 1-Methylnaphthalene	142						
65 1,2,4,5-Tetrachlorobenzene	216						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
=====	=====	==	=====	=====	=====	=====	=====
63 Hexachlorocyclopentadiene	237		Compound	Not	Detected.		
66 Isosafrole (#1)	162		Compound	Not	Detected.		
72 Isosafrole (#2)	104		Compound	Not	Detected.		
73 1-Chloronaphthalene	162		Compound	Not	Detected.		
71 2-Chloronaphthalene	162		Compound	Not	Detected.		
67 2,4,6-Trichlorophenol	196		Compound	Not	Detected.		
68 2,4,5-Trichlorophenol	196		Compound	Not	Detected.		
75 1,4-Naphthoquinone	158		Compound	Not	Detected.		
74 2-Nitroaniline	65		Compound	Not	Detected.		
78 1,4-Dinitrobenzene	168		Compound	Not	Detected.		
80 1,3-Dinitrobenzene	168		Compound	Not	Detected.		
76 Dimethyl phthalate	163		Compound	Not	Detected.		
79 2,6-Dinitrotoluene	165		Compound	Not	Detected.		
81 Acenaphthylene	152		Compound	Not	Detected.		
82 3-Nitroaniline	138		Compound	Not	Detected.		
84 Acenaphthene	153		Compound	Not	Detected.		
89 Pentachlorobenzene	250		Compound	Not	Detected.		
85 2,4-Dinitrophenol	184		Compound	Not	Detected.		
86 4-Nitrophenol	109		Compound	Not	Detected.		
87 2,4-Dinitrotoluene	165		Compound	Not	Detected.		
88 Dibenzofuran	168		Compound	Not	Detected.		
90 1-Naphthylamine	143		Compound	Not	Detected.		
91 2,3,4,6-Tetrachlorophenol	232		Compound	Not	Detected.		
92 2-Naphthylamine	143		Compound	Not	Detected.		
98 Thionazin	97		Compound	Not	Detected.		
93 Diethyl phthalate	149		Compound	Not	Detected.		
100 5-Nitro-o-toluidine	152		Compound	Not	Detected.		
96 Fluorene	166		Compound	Not	Detected.		
95 4-Chlorophenyl phenyl ether	204		Compound	Not	Detected.		
97 4-Nitroaniline	138		Compound	Not	Detected.		
99 4,6-Dinitro-2-methylphenol	198		Compound	Not	Detected.		
101 N-nitrosodiphenylamine	169		Compound	Not	Detected.		
182 Diphenylamine	169		Compound	Not	Detected.		
102 Azobenzene	77		Compound	Not	Detected.		
104 Sulfotepp	97		Compound	Not	Detected.		
105 1,3,5-Trinitrobenzene	213		Compound	Not	Detected.		
107 Phorate	121		Compound	Not	Detected.		
109 Phenacetin	108		Compound	Not	Detected.		
106 Diallate (#1)	86		Compound	Not	Detected.		
111 Diallate (#2)	86		Compound	Not	Detected.		
108 4-Bromophenyl phenyl ether	248		Compound	Not	Detected.		
110 Hexachlorobenzene	284		Compound	Not	Detected.		
112 Dimethoate	87		Compound	Not	Detected.		
114 4-Aminobiphenyl	169		Compound	Not	Detected.		
115 Pentachloronitrobenzene	237		Compound	Not	Detected.		
116 Pronamide	173		Compound	Not	Detected.		
113 Pentachlorophenol	266		Compound	Not	Detected.		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
120 2-secbutyl-4,6-dinitropheno	211						
121 Disulfoton	88						
118 Phenanthrene	178						
122 Anthracene	178						
123 Carbazole	167						
124 Methyl parathion	109						
125 Di-n-butyl phthalate	149						
126 Parathion	109						
127 4-Nitroquinoline-1-oxide	190						
128 Methapyrilene	97						
129 Isodrin	193						
130 Fluoranthene	202						
131 Benzidine	184						
132 Pyrene	202						
134 Aramite (#1)	185						
135 Aramite (#2)	185						
136 p-Dimethylaminoazobenzene	120						
138 3,3'-Dimethylbenzidine	212						
137 Butyl benzyl phthalate	149						
139 2-Acetylaminofluorene	181						
140 3,3'-Dichlorobenzidine	252						
143 Bis(2-ethylhexyl) phthalate	149						
141 Benzo(a)anthracene	228						
144 Chrysene	228						
146 Di-n-octyl phthalate	149						
149 7,12-Dimethylbenz(a)anthrac	256						
147 Benzo(b)fluoranthene	252						
148 Benzo(k)fluoranthene	252						
150 Benzo(a)pyrene	252						
152 3-Methylcholanthrene	268						
153 Dibenz(a,j)acridine	279						
155 Indeno(1,2,3-cd)pyrene	276						
156 Dibenz(a,h)anthracene	278						
157 Benzo(g,h,i)perylene	276						
M 1 Total Isosaafrole	162						
M 2 Total Diallate	86						
M 3 Total Aramite	185						
165 Chlorobenzilate	251						
168 Methyl Styrene	118						
27 1H-Indene	116						
199 1,4-Dioxane	88	2.690	2.691	(0.531)	74105	46.4307	45.2982
175 Biphenyl	154						
183 Hexachlorophene	196						
204 Atrazine	200						
205 Caprolactam	55						



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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: K.i  
 Lab File ID: k3482.d  
 Lab Smp Id: GGTFE1AC  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: petersonj  
 Method File: /chem/K.i/060204.b/8270C.m  
 Misc Info: 4145234

Calibration Date: 02-JUN-2004  
 Calibration Time: 17:18  
 Client Smp ID: 01-MW-02  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	101139	50570	202278	94199	-6.86
49 Naphthalene-d8	372641	186320	745282	345190	-7.37
83 Acenaphthene-d10	249760	124880	499520	216254	-13.42
117 Phenanthrene-d10	498914	249457	997828	402201	-19.38
142 Chrysene-d12	578954	289477	1157908	455563	-21.31
151 Perylene-d12	517217	258608	1034434	397056	-23.23

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.07	4.57	5.57	5.07	0.00
49 Naphthalene-d8	6.28	5.78	6.78	6.28	0.00
83 Acenaphthene-d10	7.97	7.47	8.47	7.97	0.00
117 Phenanthrene-d10	9.21	8.71	9.71	9.21	-0.06
142 Chrysene-d12	11.36	10.86	11.86	11.32	-0.31
151 Perylene-d12	12.86	12.36	13.36	12.81	-0.41

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.

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RECOVERY REPORT

Client Name: Cabrera Services  
Sample Matrix: LIQUID  
Lab Smp Id: GGTFE1AC  
Level: LOW  
Data Type: MS DATA  
SpikeList File: 9HSOIL.spk  
Sublist File: HSL+AP9.sub  
Method File: /chem/K.i/060204.b/8270C.m  
Misc Info: 4145234

Client SDG: D4E210325  
Fraction: SV  
Client Smp ID: 01-MW-02  
Operator: petersonj  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	97.5610	80.2676	82.27	53-107
\$ 70 2-Fluorobiphenyl	97.5610	71.5118	73.30	31-105
\$ 133 Terphenyl-d14	97.5610	79.9826	81.98	21-125
\$ 10 2-Fluorophenol	146.341	109.242	74.65	32-116
\$ 14 Phenol-d5	146.341	114.908	78.52	40-111
\$ 103 2,4,6-Tribromophen	146.341	126.375	86.36	42-122
\$ 163 1,2-Dichlorobenzen	97.5610	72.8769	74.70	20-130
\$ 162 2-Chlorophenol-d4	146.341	116.616	79.69	20-130

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TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Cabrera Services                      Client SDG: D4E210325  
Lab Smp Id: GGTFE1AC                                Client Smp ID: 01-MW-02  
Operator : petersonj                                Sample Date: 19-MAY-2004  
Sample Location: USDA National Disease Center    Sample Point: e Center  
Sample Matrix: WATER                                Date Received: 21-MAY-2004 00:00  
Analysis Type: SV                                    Level: LOW

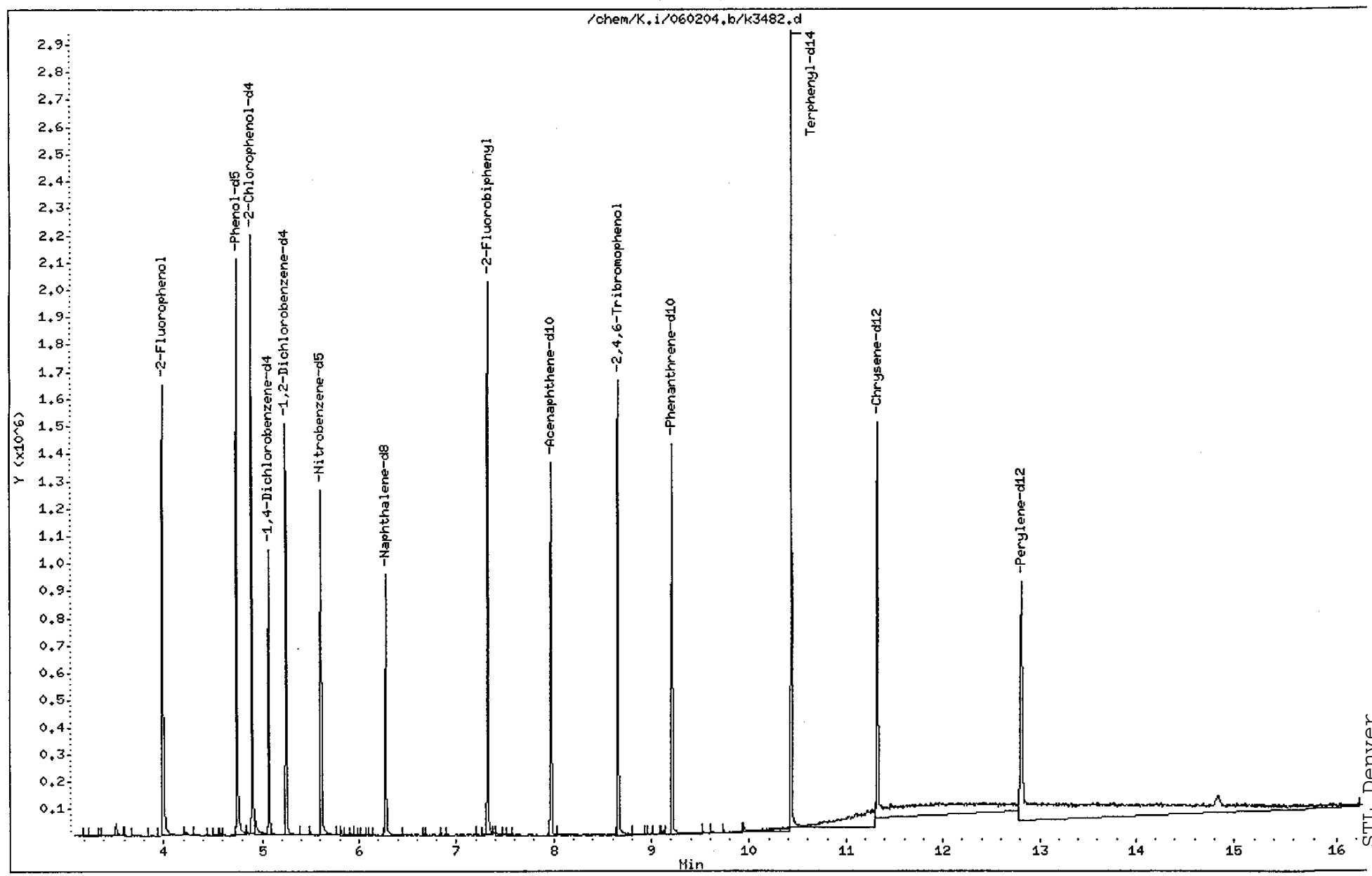
Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	2.461	8.19610	J
2.	Unknown	2.508	4.56859	J
3.	Unknown	4.929	5.24219	J
4.	Unknown	9.953	4.68550	J

Data File: /chem/K.i/060204,b/k3482.d  
Date : 02-JUN-2004 23:37  
Client ID: 01-MW-02  
Sample Info: GGTFE1AC,,D4E210325-005  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

Instrument: K.i  
Operator: petersonj  
Column diameter: 0.25



Date : 02-JUN-2004 23:37

Client ID: 01-MM-02

Instrument: K.i

Sample Info: GGTFE1AC,,D4E210325-005

Volume Injected (uL): 0.5

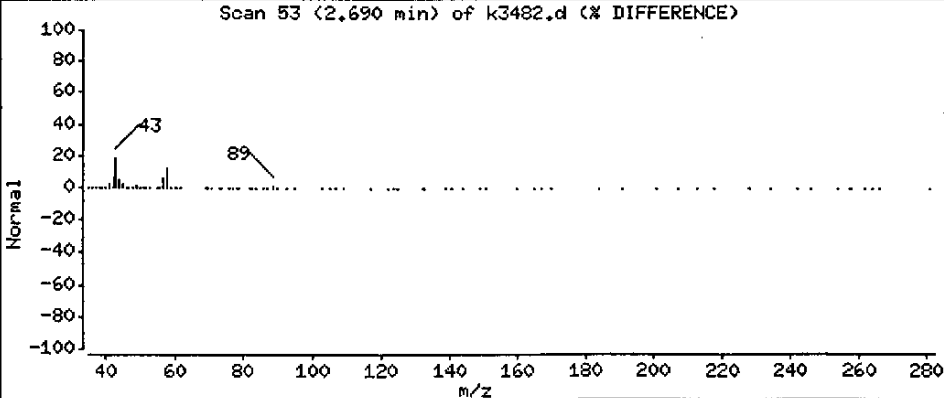
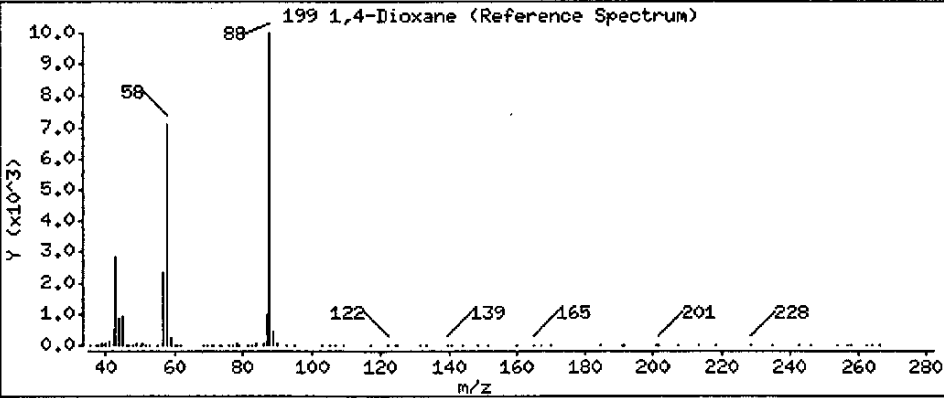
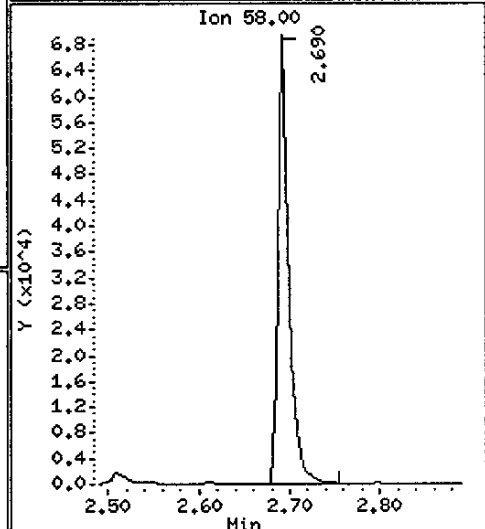
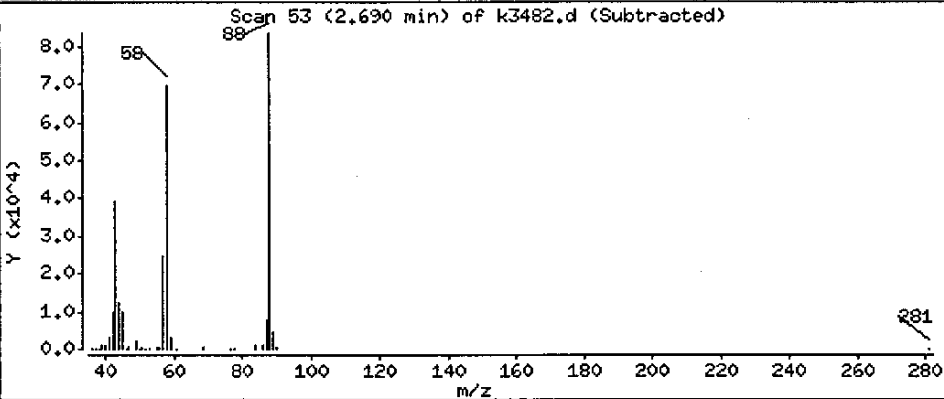
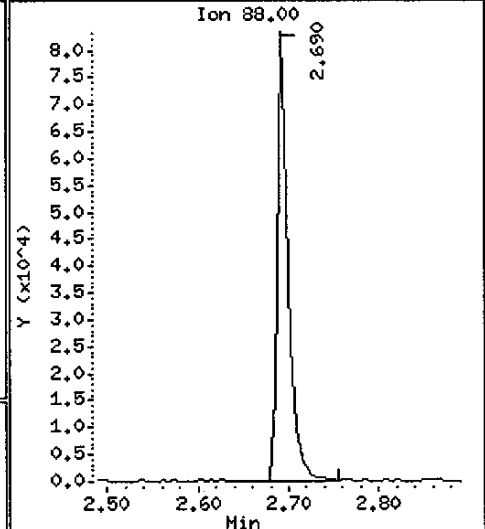
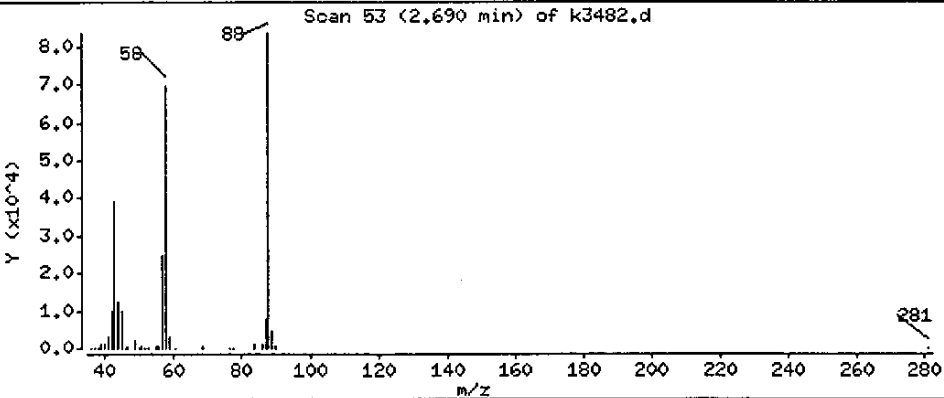
Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

199 1,4-Dioxane

Concentration: 45.2982 ug/L



Date : 02-JUN-2004 23:37

Client ID: 01-MW-02

Instrument: K.i

Sample Info: GGTFE1AC,,D4E210325-005

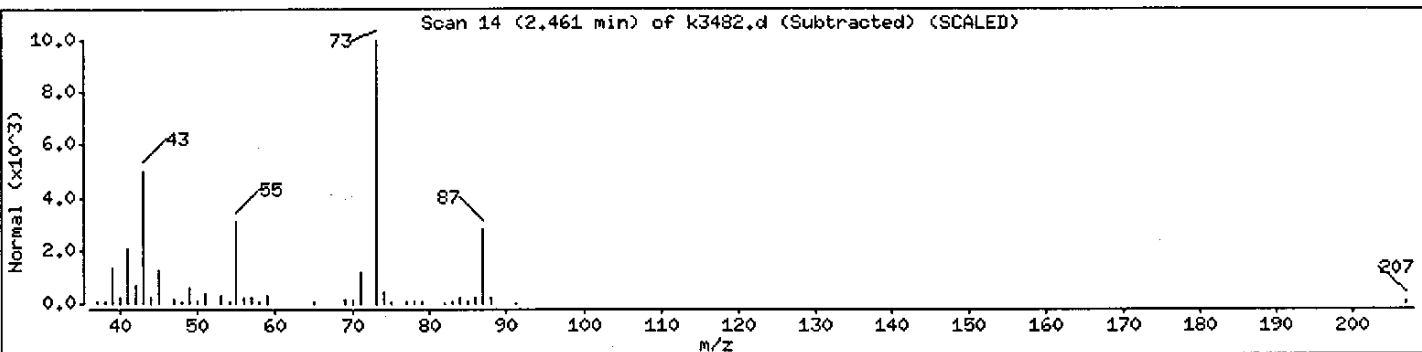
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Date : 02-JUN-2004 23:37

Client ID: 01-MW-02

Instrument: K.i

Sample Info: GGTFE1AC,,D4E210325-005

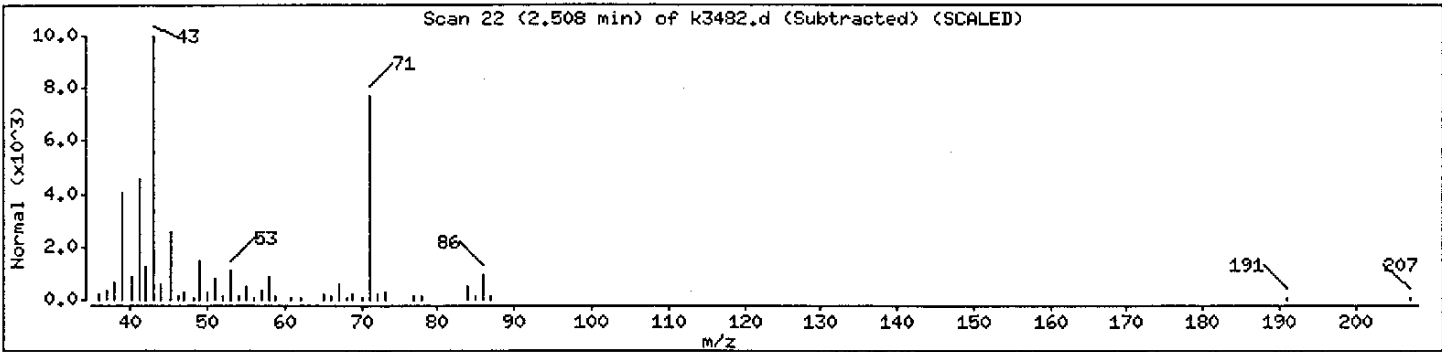
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Date : 02-JUN-2004 23:37

Client ID: 01-MW-02

Instrument: K.i

Sample Info: GGTFE1AC,,D4E210325-005

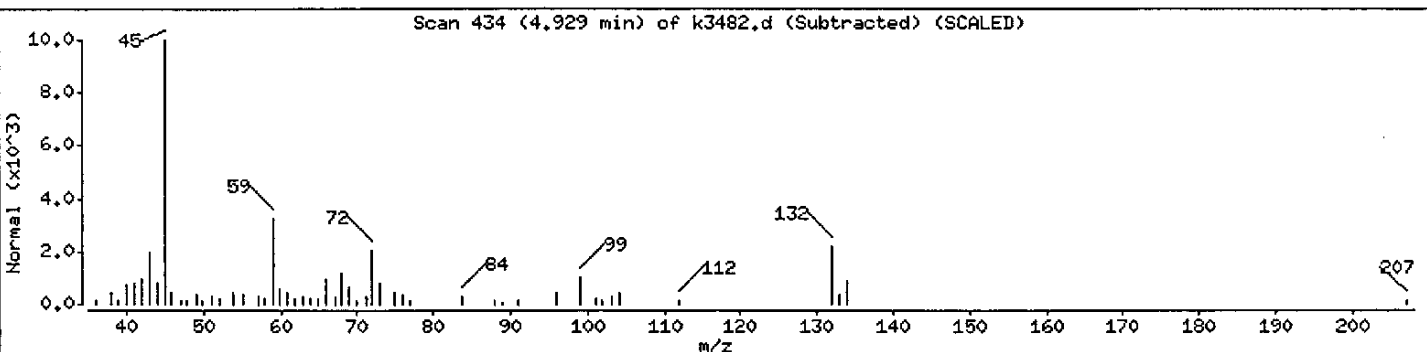
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0





Date : 02-JUN-2004 23:37

Client ID: 01-MW-02

Instrument: K.i

Sample Info: GGTFE1AC,,D4E210325-005

Volume Injected (uL): 0.5

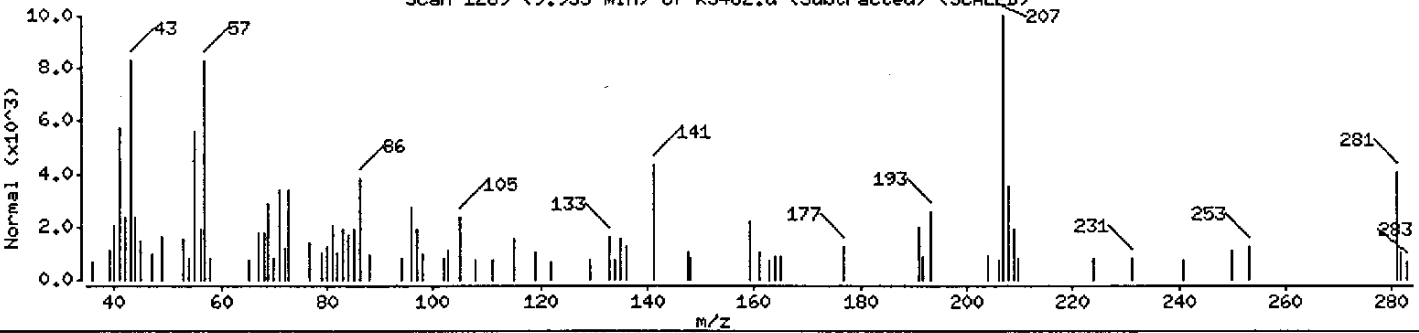
Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0

Scan 1289 (9.953 min) of k3482.d (Subtracted) (SCALED)



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*JMP*  
*6/3/04*

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/K.i/060204.b/k3483.d  
 Lab Smp Id: GGTFH1AC Client Smp ID: 01-MW-03  
 Inj Date : 03-JUN-2004 00:00  
 Operator : petersonj Inst ID: K.i  
 Smp Info : GGTFH1AC,,D4E210325-006  
 Misc Info : 4145234  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/K.i/060204.b/8270C.m  
 Meth Date : 03-Jun-2004 11:53 peterso Quant Type: ISTD  
 Cal Date : 31-MAY-2004 17:57 Cal File: k3410.d  
 Als bottle: 20  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: HSL+AP9.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1051.00000	volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN	FINAL
								(ug/ml)	( ug/L)
* 22 1,4-Dichlorobenzene-d4	152			5.070	5.070	(1.000)	94270	40.0000	
* 49 Naphthalene-d8	136			6.275	6.281	(1.000)	344633	40.0000	
* 83 Acenaphthene-d10	164			7.973	7.973	(1.000)	211459	40.0000	
* 117 Phenanthrene-d10	188			9.207	9.212	(1.000)	403287	40.0000	
* 142 Chrysene-d12	240			11.322	11.357	(1.000)	439713	40.0000	
* 151 Perylene-d12	264			12.814	12.861	(1.000)	404939	40.0000	
\$ 36 Nitrobenzene-d5	82			5.605	5.611	(1.105)	227134	60.1136	57.1966
\$ 70 2-Fluorobiphenyl	172			7.327	7.326	(0.919)	333479	51.9873	49.4646
\$ 133 Terphenyl-d14	244			10.429	10.446	(0.921)	546994	73.7091	70.1324
\$ 10 2-Fluorophenol	112			3.995	3.995	(0.788)	256368	82.7317	78.7172
\$ 14 Phenol-d5	99			4.747	4.753	(0.936)	349648	89.4081	85.0695
\$ 103 2,4,6-Tribromophenol	330			8.660	8.660	(0.941)	97122	108.594	103.324
\$ 163 1,2-Dichlorobenzene-d4	152			5.247	5.252	(1.035)	93610	48.4862	46.1334
\$ 162 2-Chlorophenol-d4	132			4.900	4.906	(0.966)	258241	89.9903	85.6235
4 N-Nitrosodimethylamine	74								Compound Not Detected.

Compounds	QUANT SIG	RT	EXP	RT	REL	RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/ml)	FINAL ( ug/L)
5 Pyridine	79								
7 2-Picoline	93								
8 N-Nitrosomethylethylamine	88								
9 Methyl methanesulfonate	80								
11 N-Nitrosodiethylamine	102								
13 Ethyl methanesulfonate	79								
15 Phenol	94								
16 Aniline	93								
19 Pentachloroethane	117								
18 Bis(2-chloroethyl) ether	93								
20 2-Chlorophenol	128								
21 1,3-Dichlorobenzene	146								
23 1,4-Dichlorobenzene	146								
25 1,2-Dichlorobenzene	146								
24 Benzyl alcohol	108								
26 2-Methylphenol	108								
28 2,2'-oxybis(1-chloropropane)	45								
29 4-Methylphenol	108								
31 N-Nitrosopyrrolidine	100								
32 Acetophenone	105								
34 N-Nitrosomorpholine	116								
35 o-Toluidine	106								
30 N-nitrosodi-n-propylamine	70								
33 Hexachloroethane	117								
37 Nitrobenzene	77								
39 N-Nitrosopiperidine	114								
40 Isophorone	82								
41 2-Nitrophenol	139								
44 O,O,O-Triethyl phosphorothio	198								
42 2,4-Dimethylphenol	107								
43 Bis(2-chloroethoxy)methane	93								
45 Benzoic acid	122								
48 a,a-Dimethylphenethylamine	58								
46 2,4-Dichlorophenol	162								
47 1,2,4-Trichlorobenzene	180								
53 2,6-Dichlorophenol	162								
54 Hexachloropropene	213								
50 Naphthalene	128								
51 4-Chloroaniline	127								
52 Hexachlorobutadiene	225								
57 N-Nitrosodi-n-butylamine	84								
58 p-Phenylenediamine	108								
61 Safrole	162								
59 4-Chloro-3-methylphenol	107								
62 2-Methylnaphthalene	142								
64 1-Methylnaphthalene	142								
65 1,2,4,5-Tetrachlorobenzene	216								

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
63 Hexachlorocyclopentadiene	237						
66 Isosafrole (#1)	162						
72 Isosafrole (#2)	104						
73 1-Chloronaphthalene	162						
71 2-Chloronaphthalene	162						
67 2,4,6-Trichlorophenol	196						
68 2,4,5-Trichlorophenol	196						
75 1,4-Naphthoquinone	158						
74 2-Nitroaniline	65						
78 1,4-Dinitrobenzene	168						
80 1,3-Dinitrobenzene	168						
76 Dimethyl phthalate	163						
79 2,6-Dinitrotoluene	165						
81 Acenaphthylene	152						
82 3-Nitroaniline	138						
84 Acenaphthene	153						
89 Pentachlorobenzene	250						
85 2,4-Dinitrophenol	184						
86 4-Nitrophenol	109						
87 2,4-Dinitrotoluene	165						
88 Dibenzofuran	168						
90 1-Naphthylamine	143						
91 2,3,4,6-Tetrachlorophenol	232						
92 2-Naphthylamine	143						
98 Thionazin	97						
93 Diethyl phthalate	149						
100 5-Nitro-o-toluidine	152						
96 Fluorene	166						
95 4-Chlorophenyl phenyl ether	204						
97 4-Nitroaniline	138						
99 4,6-Dinitro-2-methylphenol	198						
101 N-nitrosodiphenylamine	169						
182 Diphenylamine	169						
102 Azobenzene	77						
104 Sulfotepp	97						
105 1,3,5-Trinitrobenzene	213						
107 Phorate	121						
109 Phenacetin	108						
106 Diallate (#1)	86						
111 Diallate (#2)	86						
108 4-Bromophenyl phenyl ether	248						
110 Hexachlorobenzene	284						
112 Dimethoate	87						
114 4-Aminobiphenyl	169						
115 Pentachloronitrobenzene	237						
116 Pronamide	173						
113 Pentachlorophenol	266						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
120 2-secbutyl-4,6-dinitrophenol	211						
121 Disulfoton	88						
118 Phenanthrene	178						
122 Anthracene	178						
123 Carbazole	167						
124 Methyl parathion	109						
125 Di-n-butyl phthalate	149						
126 Parathion	109						
127 4-Nitroquinoline-1-oxide	190						
128 Methapyrilene	97						
129 Isodrin	193						
130 Fluoranthene	202						
131 Benzidine	184						
132 Pyrene	202						
134 Aramite (#1)	185						
135 Aramite (#2)	185						
136 p-Dimethylaminoazobenzene	120						
138 3,3'-Dimethylbenzidine	212						
137 Butyl benzyl phthalate	149						
139 2-Acetylaminofluorene	181						
140 3,3'-Dichlorobenzidine	252						
143 Bis(2-ethylhexyl) phthalate	149						
141 Benzo(a)anthracene	228						
144 Chrysene	228						
146 Di-n-octyl phthalate	149						
149 7,12-Dimethylbenz(a)anthracene	256						
147 Benzo(b)fluoranthene	252						
148 Benzo(k)fluoranthene	252						
150 Benzo(a)pyrene	252						
152 3-Methylcholanthrene	268						
153 Dibenz(a,j)acridine	279						
155 Indeno(1,2,3-cd)pyrene	276						
156 Dibenz(a,h)anthracene	278						
157 Benzo(g,h,i)perylene	276						
M 1 Total Isosafrole	162						
M 2 Total Diallate	86						
M 3 Total Aramite	185						
165 Chlorobenzilate	251						
168 Methyl Styrene	118						
27 1H-Indene	116						
199 1,4-Dioxane	88	2.691	2.691	(0.531)	43248	27.0767	25.7628
175 Biphenyl	154						
183 Hexachlorophene	196						
204 Atrazine	200						
205 Caprolactam	55						

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: K.i  
 Lab File ID: k3483.d  
 Lab Smp Id: GGTFH1AC  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: petersonj  
 Method File: /chem/K.i/060204.b/8270C.m  
 Misc Info: 4145234

Calibration Date: 02-JUN-2004  
 Calibration Time: 17:18  
 Client Smp ID: 01-MW-03  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	101139	50570	202278	94270	-6.79
49 Naphthalene-d8	372641	186320	745282	344633	-7.52
83 Acenaphthene-d10	249760	124880	499520	211459	-15.34
117 Phenanthrene-d10	498914	249457	997828	403287	-19.17
142 Chrysene-d12	578954	289477	1157908	439713	-24.05
151 Perylene-d12	517217	258608	1034434	404939	-21.71

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.07	4.57	5.57	5.07	0.00
49 Naphthalene-d8	6.28	5.78	6.78	6.27	-0.09
83 Acenaphthene-d10	7.97	7.47	8.47	7.97	0.00
117 Phenanthrene-d10	9.21	8.71	9.71	9.21	-0.06
142 Chrysene-d12	11.36	10.86	11.86	11.32	-0.31
151 Perylene-d12	12.86	12.36	13.36	12.81	-0.36

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.

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RECOVERY REPORT

Client Name: Cabrera Services  
Sample Matrix: LIQUID  
Lab Smp Id: GGTFH1AC  
Level: LOW  
Data Type: MS DATA  
SpikeList File: 9HSOIL.spk  
Sublist File: HSL+AP9.sub  
Method File: /chem/K.i/060204.b/8270C.m  
Misc Info: 4145234

Client SDG: D4E210325  
Fraction: SV  
Client Smp ID: 01-MW-03  
Operator: petersonj  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	95.1475	57.1966	60.11	53-107
\$ 70 2-Fluorobiphenyl	95.1475	49.4646	51.99	31-105
\$ 133 Terphenyl-d14	95.1475	70.1324	73.71	21-125
\$ 10 2-Fluorophenol	142.721	78.7172	55.15	32-116
\$ 14 Phenol-d5	142.721	85.0695	59.61	40-111
\$ 103 2,4,6-Tribromophen	142.721	103.324	72.40	42-122
\$ 163 1,2-Dichlorobenzen	95.1475	46.1334	48.49	20-130
\$ 162 2-Chlorophenol-d4	142.721	85.6235	59.99	20-130

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TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Cabrera Services                      Client SDG: D4E210325  
Lab Smp Id: GGTFH1AC                              Client Smp ID: 01-MW-03  
Operator : petersonj                              Sample Date: 19-MAY-2004  
Sample Location: USDA National Disease Center    Sample Point: e Center  
Sample Matrix: WATER                              Date Received: 21-MAY-2004 00:00  
Analysis Type: SV                                      Level: LOW

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	2.456	6.93376	J
2.	Unknown	4.929	6.25870	J
3.	Unknown	9.953	6.16297	J



Data File: /chem/K.i/060204,b/k3483,d

Date : 03-JUN-2004 00:00

Client ID: 01-MW-03

Sample Info: GCTFH1AC,,D4E210325-006

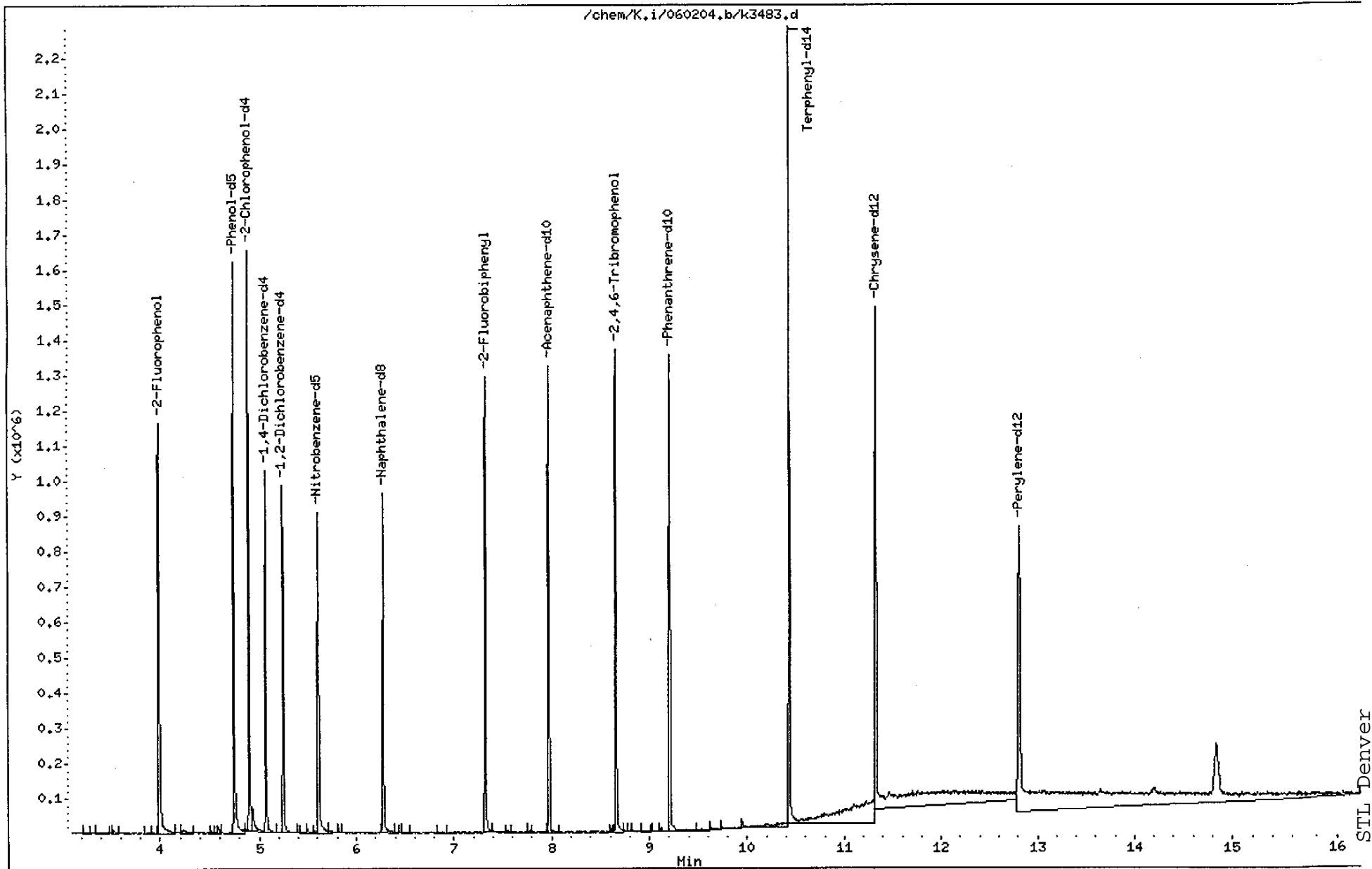
Volume Injected (uL): 0.5

Column phase: Rtx-5ms 30m 0.5um

Instrument: K.i

Operator: petersonj

Column diameter: 0.25



Date : 03-JUN-2004 00:00

Client ID: 01-MM-03

Instrument: K.i

Sample Info: GGTFH1AC,,D4E210325-006

Volume Injected (uL): 0.5

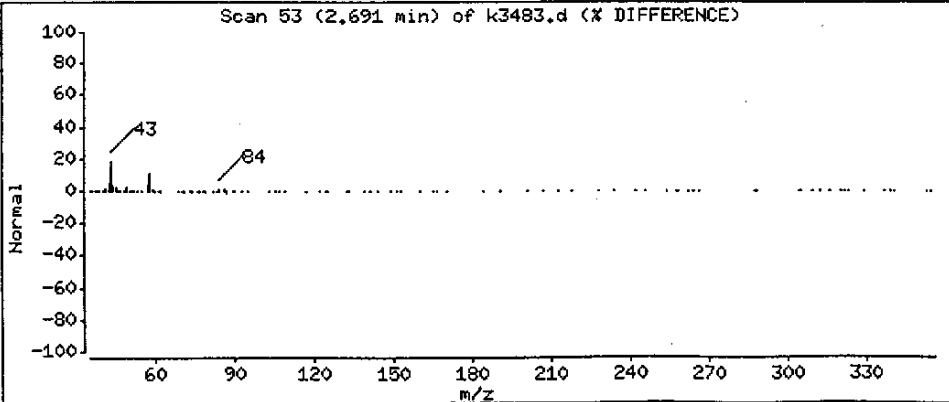
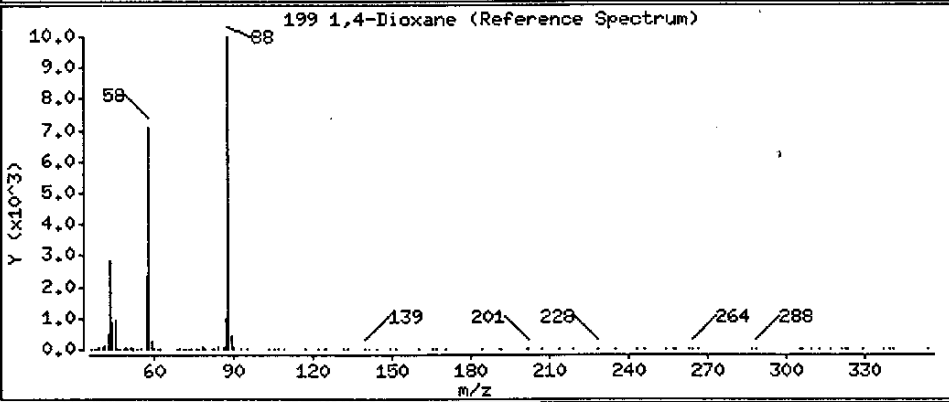
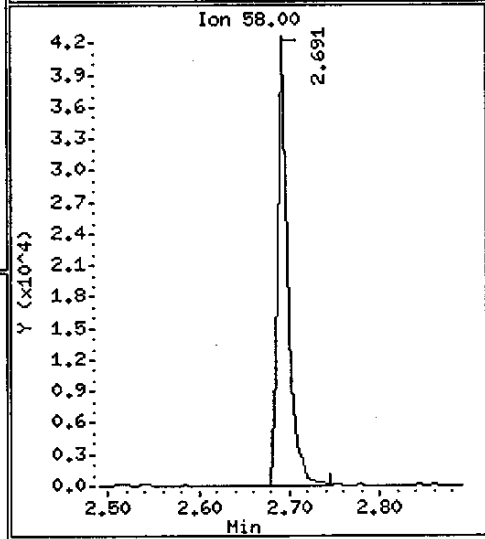
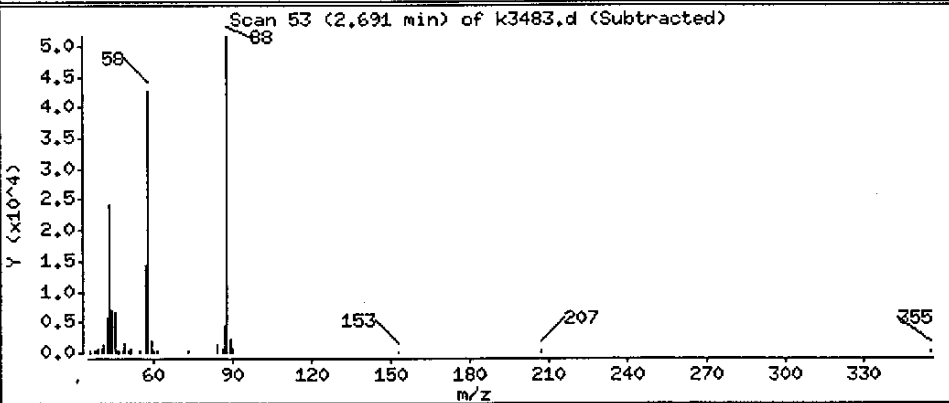
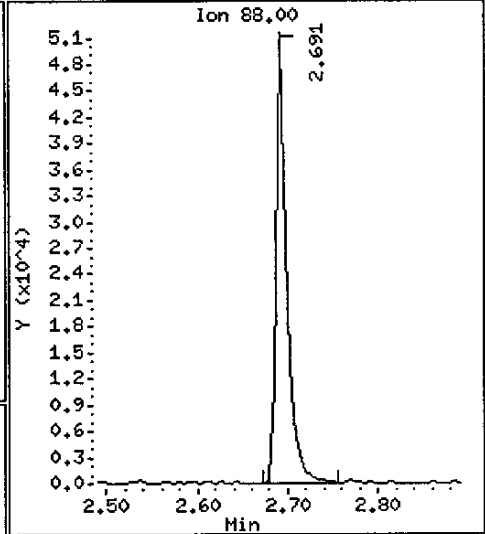
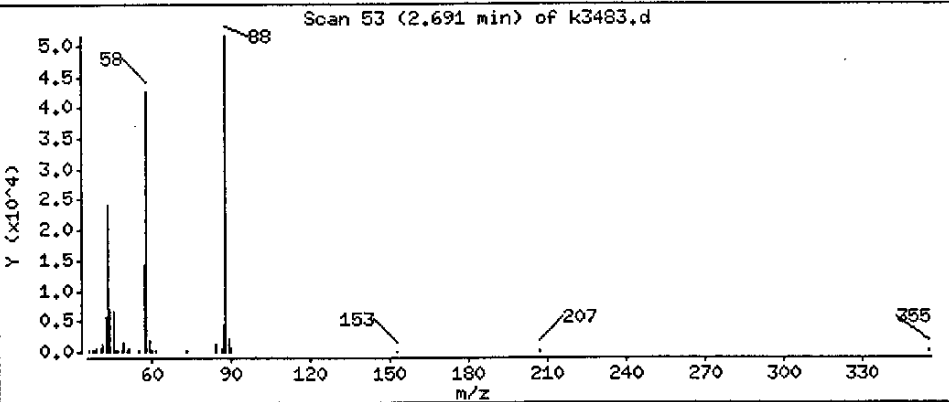
Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

199 1,4-Dioxane

Concentration: 25.7628 ug/L



Date : 03-JUN-2004 00:00

Client ID: 01-MW-03

Instrument: K.i

Sample Info: CGTFH1AC,,D4E210325-006

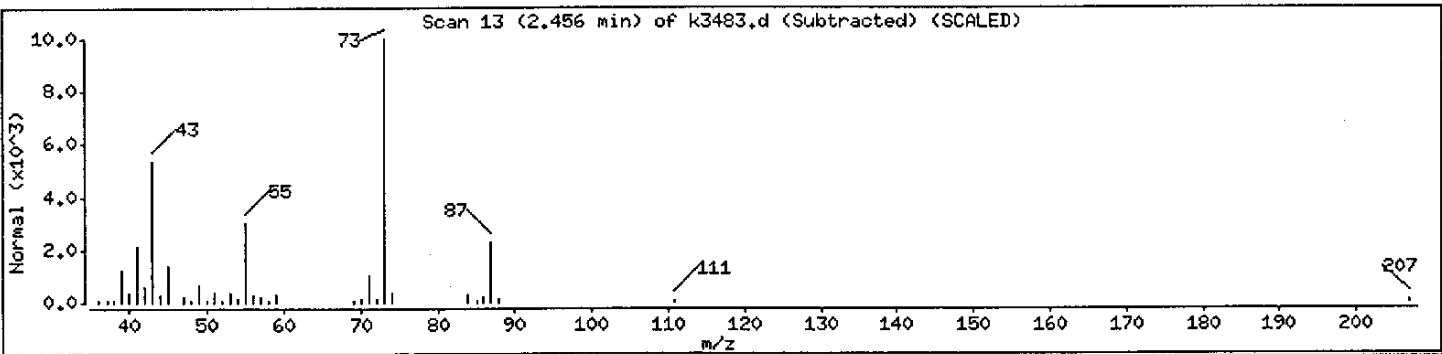
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Date : 03-JUN-2004 00:00

Client ID: 01-MW-03

Instrument: K.i

Sample Info: CGTFH1AC,,D4E210325-006

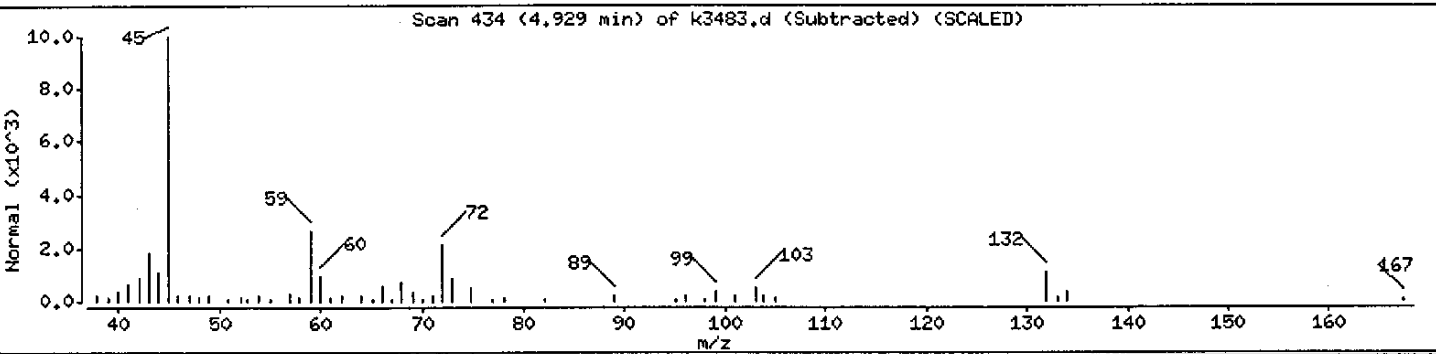
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Date : 03-JUN-2004 00:00

Client ID: 01-MW-03

Instrument: K.i

Sample Info: GGTFH1AC,,D4E210325-006

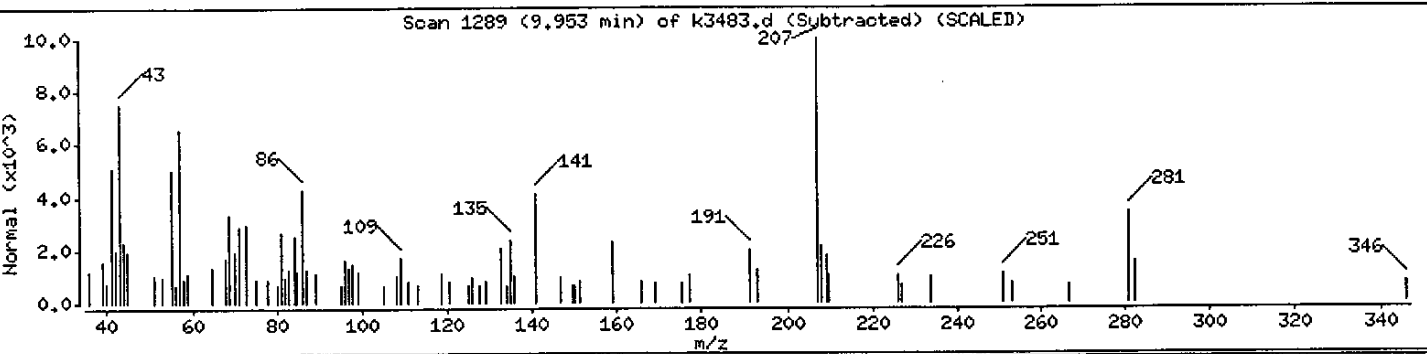
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



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*Handwritten signature and date: 6/13/04*

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/K.i/060204.b/k3484.d  
 Lab Smp Id: GGTFX1AC Client Smp ID: 01-MW-11  
 Inj Date : 03-JUN-2004 00:23  
 Operator : petersonj Inst ID: K.i  
 Smp Info : GGTFX1AC,,D4E210325-008  
 Misc Info : 4145234  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/K.i/060204.b/8270C.m  
 Meth Date : 03-Jun-2004 11:53 petersoj Quant Type: ISTD  
 Cal Date : 31-MAY-2004 17:57 Cal File: k3410.d  
 Als bottle: 21  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: HSL+AP9.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1011.00000	volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/ml)	FINAL (ug/L)
* 22 1,4-Dichlorobenzene-d4	152			5.070	5.070	(1.000)	96473	40.0000	
* 49 Naphthalene-d8	136			6.281	6.281	(1.000)	360910	40.0000	
* 83 Acenaphthene-d10	164			7.973	7.973	(1.000)	235281	40.0000	
* 117 Phenanthrene-d10	188			9.207	9.212	(1.000)	449421	40.0000	
* 142 Chrysene-d12	240			11.322	11.357	(1.000)	506950	40.0000	
* 151 Perylene-d12	264			12.808	12.861	(1.000)	456082	40.0000	
\$ 36 Nitrobenzene-d5	82			5.605	5.611	(1.105)	306934	79.3786	78.5149
\$ 70 2-Fluorobiphenyl	172			7.326	7.326	(0.919)	451736	63.2925	62.6039
\$ 133 Terphenyl-d14	244			10.429	10.446	(0.921)	603378	70.5233	69.7560
\$ 10 2-Fluorophenol	112			3.995	3.995	(0.788)	358524	113.056	111.826
\$ 14 Phenol-d5	99			4.747	4.753	(0.936)	468729	117.121	115.847
\$ 103 2,4,6-Tribromophenol	330			8.660	8.660	(0.941)	119801	120.201	118.893
\$ 163 1,2-Dichlorobenzene-d4	152			5.246	5.252	(1.035)	115703	58.5609	57.9238
\$ 162 2-Chlorophenol-d4	132			4.900	4.906	(0.966)	340080	115.803	114.543
4 N-Nitrosodimethylamine	74								Compound Not Detected.

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
-----	----	==	=====	=====	=====	=====	=====
5 Pyridine	79				Compound Not Detected.		
7 2-Picoline	93				Compound Not Detected.		
8 N-Nitrosomethylethylamine	88				Compound Not Detected.		
9 Methyl methanesulfonate	80				Compound Not Detected.		
11 N-Nitrosodiethylamine	102				Compound Not Detected.		
13 Ethyl methanesulfonate	79				Compound Not Detected.		
15 Phenol	94				Compound Not Detected.		
16 Aniline	93				Compound Not Detected.		
19 Pentachloroethane	117				Compound Not Detected.		
18 Bis(2-chloroethyl) ether	93				Compound Not Detected.		
20 2-Chlorophenol	128				Compound Not Detected.		
21 1,3-Dichlorobenzene	146				Compound Not Detected.		
23 1,4-Dichlorobenzene	146				Compound Not Detected.		
25 1,2-Dichlorobenzene	146				Compound Not Detected.		
24 Benzyl alcohol	108				Compound Not Detected.		
26 2-Methylphenol	108				Compound Not Detected.		
28 2,2'-oxybis(1-chloropropane)	45				Compound Not Detected.		
29 4-Methylphenol	108				Compound Not Detected.		
31 N-Nitrosopyrrolidine	100				Compound Not Detected.		
32 Acetophenone	105				Compound Not Detected.		
34 N-Nitrosomorpholine	116				Compound Not Detected.		
35 o-Toluidine	106				Compound Not Detected.		
30 N-nitrosodi-n-propylamine	70				Compound Not Detected.		
33 Hexachloroethane	117				Compound Not Detected.		
37 Nitrobenzene	77				Compound Not Detected.		
39 N-Nitrosopiperidine	114				Compound Not Detected.		
40 Isophorone	82				Compound Not Detected.		
41 2-Nitrophenol	139				Compound Not Detected.		
44 O,O,O-Triethyl phosphorothio	198				Compound Not Detected.		
42 2,4-Dimethylphenol	107				Compound Not Detected.		
43 Bis(2-chloroethoxy)methane	93				Compound Not Detected.		
45 Benzoic acid	122				Compound Not Detected.		
48 a,a-Dimethylphenethylamine	58				Compound Not Detected.		
46 2,4-Dichlorophenol	162				Compound Not Detected.		
47 1,2,4-Trichlorobenzene	180				Compound Not Detected.		
53 2,6-Dichlorophenol	162				Compound Not Detected.		
54 Hexachloropropene	213				Compound Not Detected.		
50 Naphthalene	128				Compound Not Detected.		
51 4-Chloroaniline	127				Compound Not Detected.		
52 Hexachlorobutadiene	225				Compound Not Detected.		
57 N-Nitrosodi-n-butylamine	84				Compound Not Detected.		
58 p-Phenylenediamine	108				Compound Not Detected.		
61 Safrole	162				Compound Not Detected.		
59 4-Chloro-3-methylphenol	107				Compound Not Detected.		
62 2-Methylnaphthalene	142				Compound Not Detected.		
64 1-Methylnaphthalene	142				Compound Not Detected.		
65 1,2,4,5-Tetrachlorobenzene	216				Compound Not Detected.		

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
63 Hexachlorocyclopentadiene	237						
66 Isosafrole (#1)	162						
72 Isosafrole (#2)	104						
73 1-Chloronaphthalene	162						
71 2-Chloronaphthalene	162						
67 2,4,6-Trichlorophenol	196						
68 2,4,5-Trichlorophenol	196						
75 1,4-Naphthoquinone	158						
74 2-Nitroaniline	65						
78 1,4-Dinitrobenzene	168						
80 1,3-Dinitrobenzene	168						
76 Dimethyl phthalate	163						
79 2,6-Dinitrotoluene	165						
81 Acenaphthylene	152						
82 3-Nitroaniline	138						
84 Acenaphthene	153						
89 Pentachlorobenzene	250						
85 2,4-Dinitrophenol	184						
86 4-Nitrophenol	109						
87 2,4-Dinitrotoluene	165						
88 Dibenzofuran	168						
90 1-Naphthylamine	143						
91 2,3,4,6-Tetrachlorophenol	232						
92 2-Naphthylamine	143						
98 Thionazin	97						
93 Diethyl phthalate	149						
100 5-Nitro-o-toluidine	152						
96 Fluorene	166						
95 4-Chlorophenyl phenyl ether	204						
97 4-Nitroaniline	138						
99 4,6-Dinitro-2-methylphenol	198						
101 N-nitrosodiphenylamine	169						
182 Diphenylamine	169						
102 Azobenzene	77						
104 Sulfotepp	97						
105 1,3,5-Trinitrobenzene	213						
107 Phorate	121						
109 Phenacetin	108						
106 Diallate (#1)	86						
111 Diallate (#2)	86						
108 4-Bromophenyl phenyl ether	248						
110 Hexachlorobenzene	284						
112 Dimethoate	87						
114 4-Aminobiphenyl	169						
115 Pentachloronitrobenzene	237						
116 Pronamide	173						
113 Pentachlorophenol	266						



Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/ml)	FINAL ( ug/L)
=====	=====	=====	==	=====	=====	=====	=====	=====
120 2-secbutyl-4,6-dinitropheno	211					Compound Not Detected.		
121 Disulfoton	88					Compound Not Detected.		
118 Phenanthrene	178					Compound Not Detected.		
122 Anthracene	178					Compound Not Detected.		
123 Carbazole	167					Compound Not Detected.		
124 Methyl parathion	109					Compound Not Detected.		
125 Di-n-butyl phthalate	149					Compound Not Detected.		
126 Parathion	109					Compound Not Detected.		
127 4-Nitroquinoline-1-oxide	190					Compound Not Detected.		
128 Methapyrilene	97					Compound Not Detected.		
129 Isodrin	193					Compound Not Detected.		
130 Fluoranthene	202					Compound Not Detected.		
131 Benzidine	184					Compound Not Detected.		
132 Pyrene	202					Compound Not Detected.		
134 Aramite (#1)	185					Compound Not Detected.		
135 Aramite (#2)	185					Compound Not Detected.		
136 p-Dimethylaminoazobenzene	120					Compound Not Detected.		
138 3,3'-Dimethylbenzidine	212					Compound Not Detected.		
137 Butyl benzyl phthalate	149					Compound Not Detected.		
139 2-Acetylaminofluorene	181					Compound Not Detected.		
140 3,3'-Dichlorobenzidine	252					Compound Not Detected.		
143 Bis(2-ethylhexyl) phthalate	149					Compound Not Detected.		
141 Benzo(a)anthracene	228					Compound Not Detected.		
144 Chrysene	228					Compound Not Detected.		
146 Di-n-octyl phthalate	149					Compound Not Detected.		
149 7,12-Dimethylbenz(a)anthrac	256					Compound Not Detected.		
147 Benzo(b)fluoranthene	252					Compound Not Detected.		
148 Benzo(k)fluoranthene	252					Compound Not Detected.		
150 Benzo(a)pyrene	252					Compound Not Detected.		
152 3-Methylcholanthrene	268					Compound Not Detected.		
153 Dibenz(a,j)acridine	279					Compound Not Detected.		
155 Indeno(1,2,3-cd)pyrene	276					Compound Not Detected.		
156 Dibenz(a,h)anthracene	278					Compound Not Detected.		
157 Benzo(g,h,i)perylene	276					Compound Not Detected.		
M 1 Total Isosafrole	162					Compound Not Detected.		
M 2 Total Diallate	86					Compound Not Detected.		
M 3 Total Aramite	185					Compound Not Detected.		
165 Chlorobenzilate	251					Compound Not Detected.		
168 Methyl Styrene	118					Compound Not Detected.		
27 1H-Indene	116					Compound Not Detected.		
199 1,4-Dioxane	88	2.696	2.691	(0.532)	1410232	862.757	853.370 (A)	
175 Biphenyl	154					Compound Not Detected.		
183 Hexachlorophene	196					Compound Not Detected.		
204 Atrazine	200					Compound Not Detected.		
205 Caprolactam	55					Compound Not Detected.		

QC Flag Legend

A - Target compound detected but, quantitated amount  
exceeded maximum amount.

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: K.i  
 Lab File ID: k3484.d  
 Lab Smp Id: GGTFX1AC  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: petersonj  
 Method File: /chem/K.i/060204.b/8270C.m  
 Misc Info: 4145234

Calibration Date: 02-JUN-2004  
 Calibration Time: 17:18  
 Client Smp ID: 01-MW-11  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	101139	50570	202278	96473	-4.61
49 Naphthalene-d8	372641	186320	745282	360910	-3.15
83 Acenaphthene-d10	249760	124880	499520	235281	-5.80
117 Phenanthrene-d10	498914	249457	997828	449421	-9.92
142 Chrysene-d12	578954	289477	1157908	506950	-12.44
151 Perylene-d12	517217	258608	1034434	456082	-11.82

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.07	4.57	5.57	5.07	0.00
49 Naphthalene-d8	6.28	5.78	6.78	6.28	0.00
83 Acenaphthene-d10	7.97	7.47	8.47	7.97	0.00
117 Phenanthrene-d10	9.21	8.71	9.71	9.21	-0.06
142 Chrysene-d12	11.36	10.86	11.86	11.32	-0.31
151 Perylene-d12	12.86	12.36	13.36	12.81	-0.41

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.

STL-Denver

RECOVERY REPORT

Client Name: Cabrera Services  
Sample Matrix: LIQUID  
Lab Smp Id: GGTFX1AC  
Level: LOW  
Data Type: MS DATA  
SpikeList File: 9HSOIL.spk  
Sublist File: HSL+AP9.sub  
Method File: /chem/K.i/060204.b/8270C.m  
Misc Info: 4145234

Client SDG: D4E210325  
Fraction: SV  
Client Smp ID: 01-MW-11  
Operator: petersonj  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	98.9120	78.5149	79.38	53-107
\$ 70 2-Fluorobiphenyl	98.9120	62.6039	63.29	31-105
\$ 133 Terphenyl-d14	98.9120	69.7560	70.52	21-125
\$ 10 2-Fluorophenol	148.368	111.826	75.37	32-116
\$ 14 Phenol-d5	148.368	115.847	78.08	40-111
\$ 103 2,4,6-Tribromophen	148.368	118.893	80.13	42-122
\$ 163 1,2-Dichlorobenzen	98.9120	57.9238	58.56	20-130
\$ 162 2-Chlorophenol-d4	148.368	114.543	77.20	20-130

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TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Cabrera Services                      Client SDG: D4E210325  
Lab Smp Id: GGTFX1AC                                Client Smp ID: 01-MW-11  
Operator : petersonj                                Sample Date: 20-MAY-2004  
Sample Location: USDA National Disease Center    Sample Point: e Center  
Sample Matrix: WATER                                Date Received: 21-MAY-2004 00:00  
Analysis Type: SV                                    Level: LOW

Number TICs found: 3

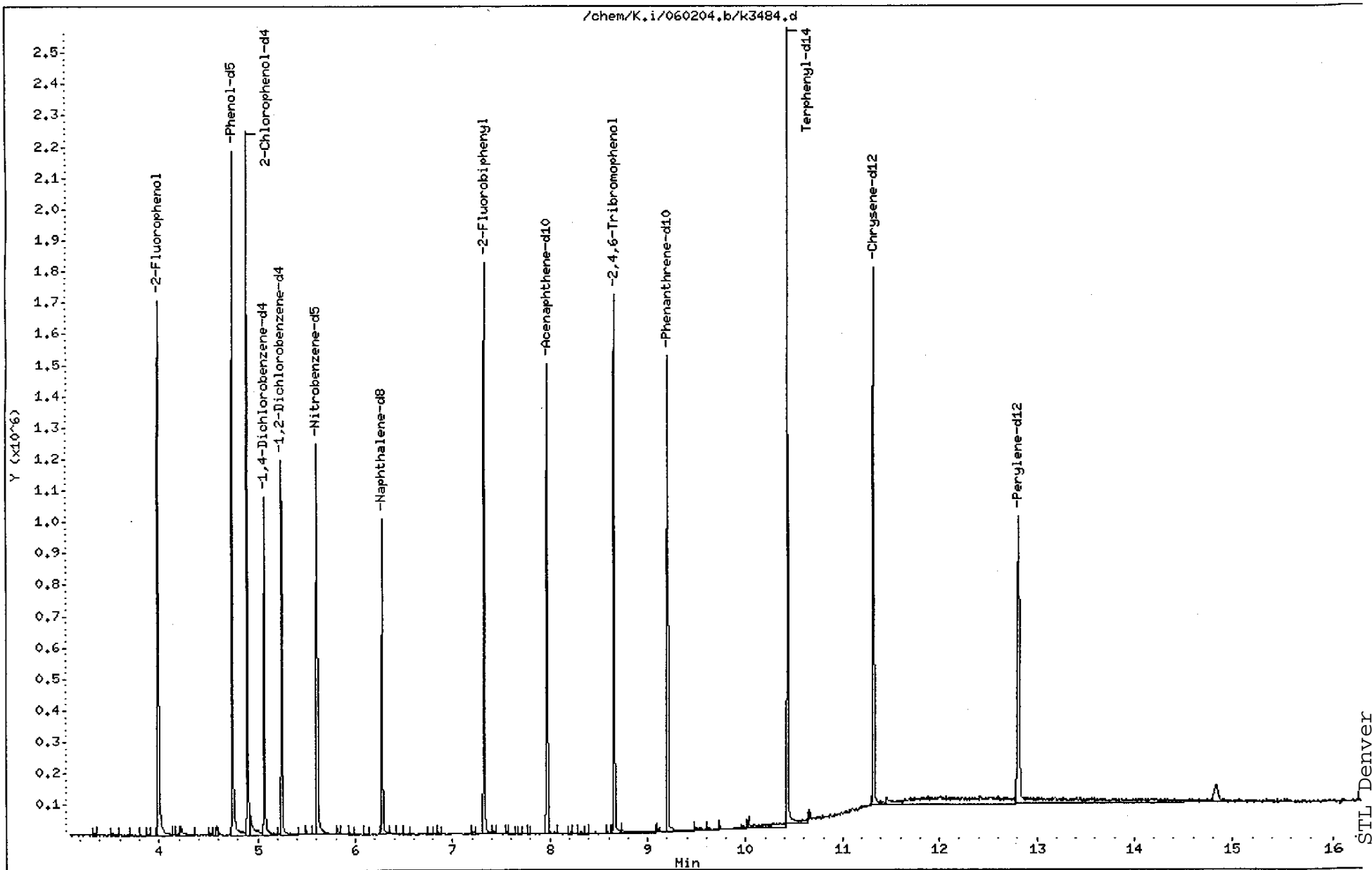
CONCENTRATION UNITS:  
(ug/L or ug/KG) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	2.456	8.43229	J
2.	Unknown	4.929	7.28138	J
3.	Unknown	10.029	5.75005	J

Data File: /chem/K.i/060204,b/k3484.d  
Date : 03-JUN-2004 00:23  
Client ID: 01-MW-11  
Sample Info: GGTFX1AC,,D4E210325-008  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

Page 9

Instrument: K.i  
Operator: petersonj  
Column diameter: 0.25



Date : 03-JUN-2004 00:23

Client ID: 01-MW-11

Instrument: K.i

Sample Info: GGTFX1AC,,D4E210325-008

Volume Injected (uL): 0.5

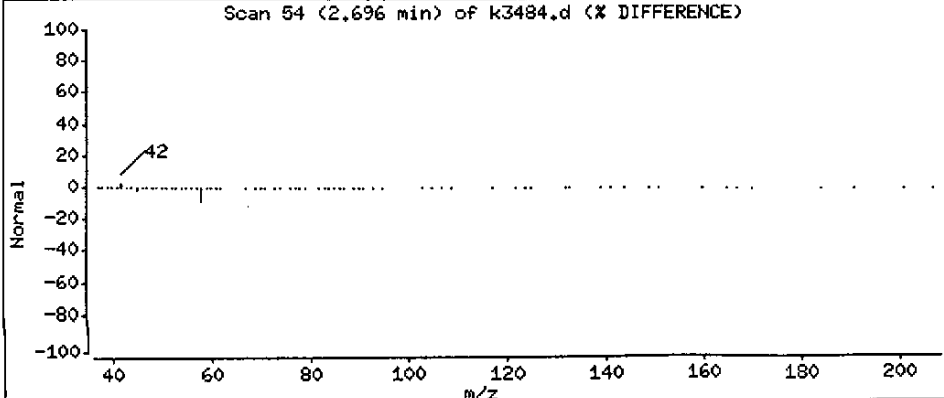
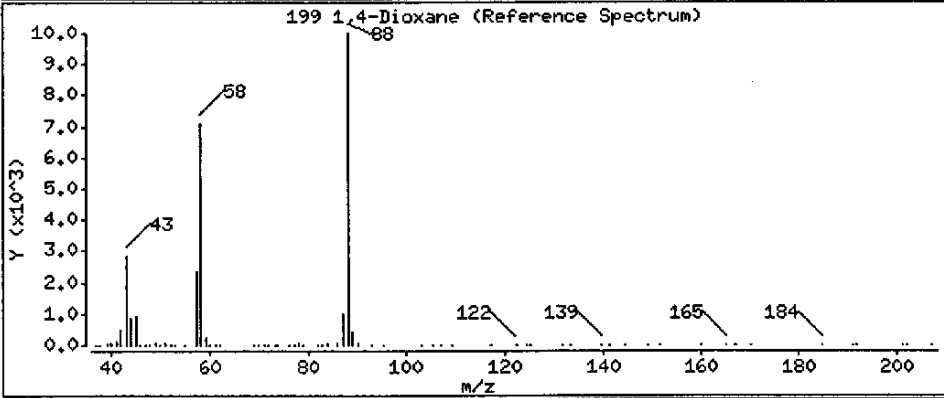
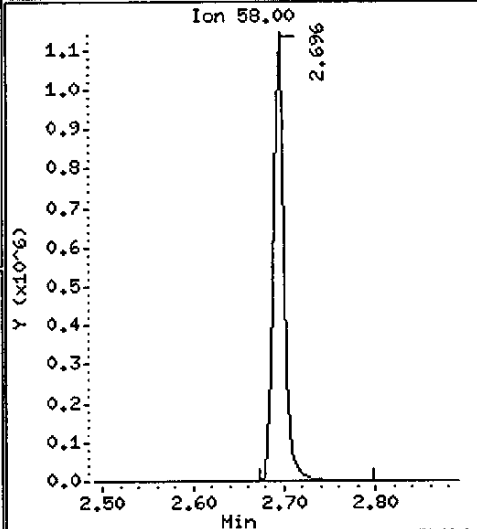
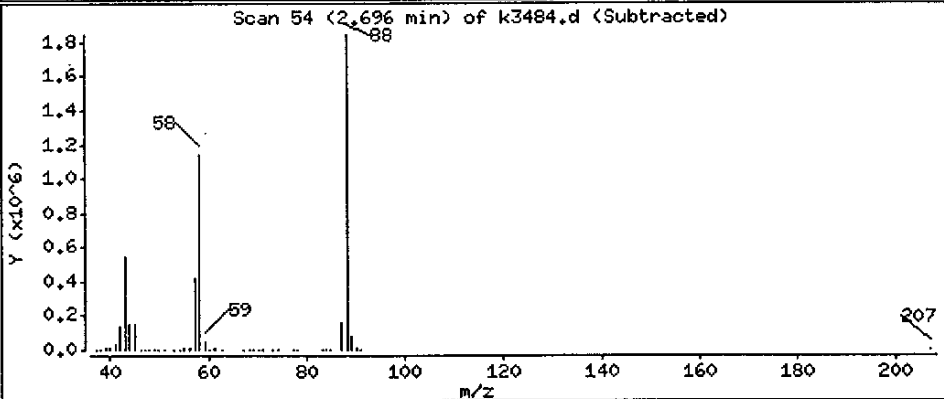
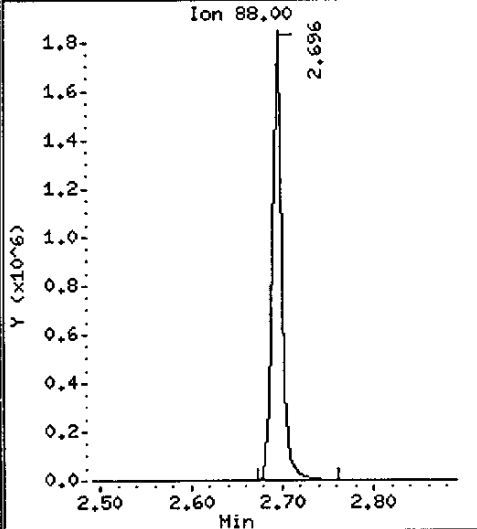
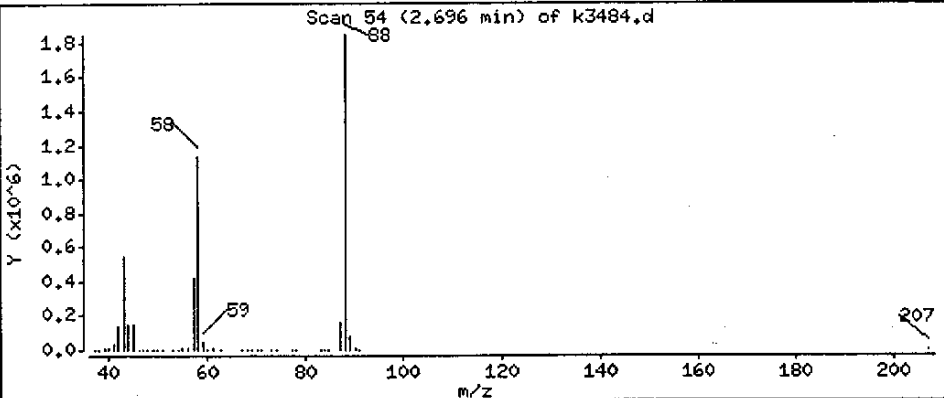
Operator: peterson,j

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

199 1,4-Dioxane

Concentration: 853.370 ug/L



Date : 03-JUN-2004 00:23

Client ID: 01-MW-11

Instrument: K.i

Sample Info: GGTFX1AC,,D4E210325-008

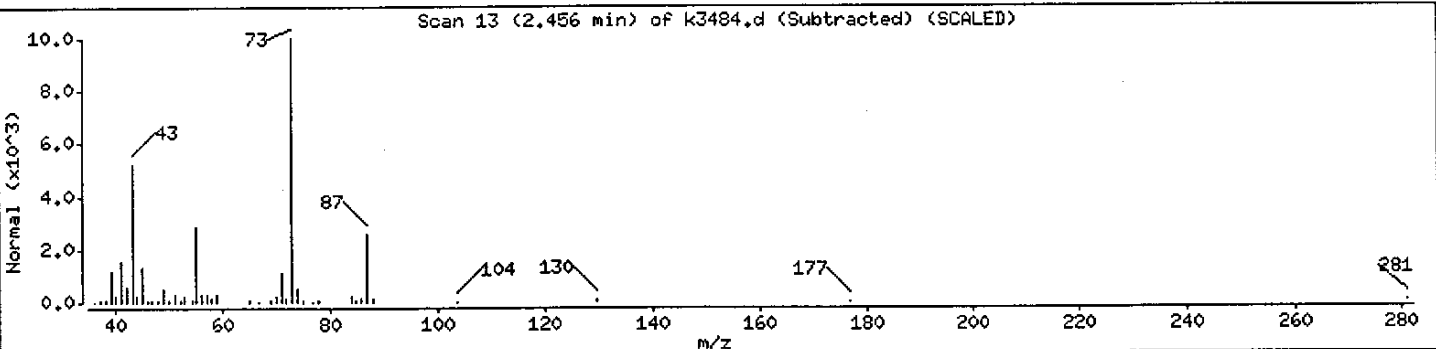
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0





Date : 03-JUN-2004 00:23

Client ID: 01-MW-11

Instrument: K.i

Sample Info: GGTFX1AC,,D4E210325-008

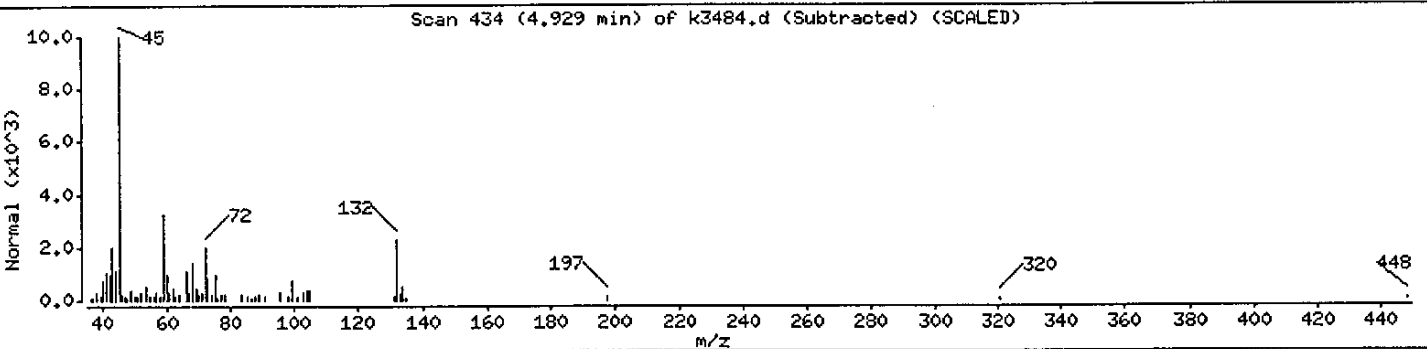
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Date : 03-JUN-2004 00:23

Client ID: 01-MW-11

Instrument: K.i

Sample Info: GGTFX1AC,,D4E210325-008

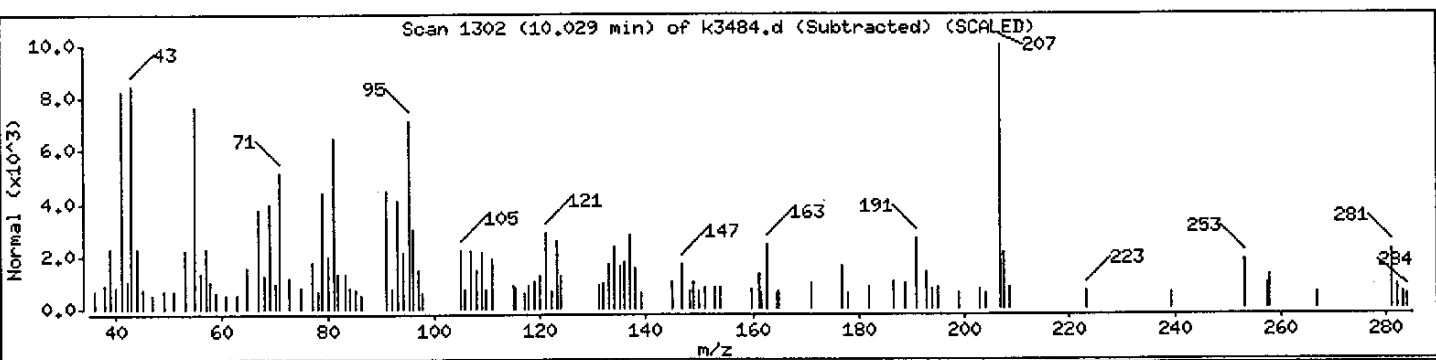
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



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*JMP*  
*6/3/04*

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/K.i/060204.b/k3485.d  
 Lab Smp Id: GGTF31AC Client Smp ID: 01-MW-10  
 Inj Date : 03-JUN-2004 00:47  
 Operator : petersoj Inst ID: K.i  
 Smp Info : GGTF31AC,,D4E210325-009  
 Misc Info : 4145234  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/K.i/060204.b/8270C.m  
 Meth Date : 03-Jun-2004 11:53 petersoj Quant Type: ISTD  
 Cal Date : 31-MAY-2004 17:57 Cal File: k3410.d  
 Als bottle: 22  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: HSL+AP9.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	948.00000	volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN	FINAL
								(ug/ml)	( ug/L)
* 22 1,4-Dichlorobenzene-d4	152			5.070	5.070	(1.000)	101751	40.0000	
* 49 Naphthalene-d8	136			6.275	6.281	(1.000)	371322	40.0000	
* 83 Acenaphthene-d10	164			7.973	7.973	(1.000)	228381	40.0000	
* 117 Phenanthrene-d10	188			9.207	9.212	(1.000)	423951	40.0000	
* 142 Chrysene-d12	240			11.334	11.357	(1.000)	479336	40.0000	
* 151 Perylene-d12	264			12.832	12.861	(1.000)	438377	40.0000	
\$ 36 Nitrobenzene-d5	82			5.605	5.611	(1.105)	337477	82.7503	87.2894
\$ 70 2-Fluorobiphenyl	172			7.326	7.326	(0.919)	489411	70.6429	74.5178
\$ 133 Terphenyl-d14	244			10.440	10.446	(0.921)	622955	77.0060	81.2300
\$ 10 2-Fluorophenol	112			3.995	3.995	(0.788)	380518	113.768	120.008
\$ 14 Phenol-d5	99			4.747	4.753	(0.936)	504639	119.553	126.111
\$ 103 2,4,6-Tribromophenol	330			8.660	8.660	(0.941)	139276	148.136	156.262
\$ 163 1,2-Dichlorobenzene-d4	152			5.246	5.252	(1.035)	120447	57.7998	60.9703
\$ 162 2-Chlorophenol-d4	132			4.900	4.906	(0.966)	381121	123.046	129.796
4 N-Nitrosodimethylamine	74								Compound Not Detected.

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
5 Pyridine	79						
7 2-Picoline	93						
8 N-Nitrosomethylethylamine	88						
9 Methyl methanesulfonate	80						
11 N-Nitrosodiethylamine	102						
13 Ethyl methanesulfonate	79						
15 Phenol	94						
16 Aniline	93						
19 Pentachloroethane	117						
18 Bis(2-chloroethyl) ether	93						
20 2-Chlorophenol	128						
21 1,3-Dichlorobenzene	146						
23 1,4-Dichlorobenzene	146						
25 1,2-Dichlorobenzene	146						
24 Benzyl alcohol	108						
26 2-Methylphenol	108						
28 2,2'-oxybis(1-chloropropane)	45						
29 4-Methylphenol	108						
31 N-Nitrosopyrrolidine	100						
32 Acetophenone	105						
34 N-Nitrosomorpholine	116						
35 o-Toluidine	106						
30 N-nitrosodi-n-propylamine	70						
33 Hexachloroethane	117						
37 Nitrobenzene	77						
39 N-Nitrosopiperidine	114						
40 Isophorone	82						
41 2-Nitrophenol	139						
44 O,O,O-Triethyl phosphorothio	198						
42 2,4-Dimethylphenol	107						
43 Bis(2-chloroethoxy)methane	93						
45 Benzoic acid	122						
48 a,a-Dimethylphenethylamine	58						
46 2,4-Dichlorophenol	162						
47 1,2,4-Trichlorobenzene	180						
53 2,6-Dichlorophenol	162						
54 Hexachloropropene	213						
50 Naphthalene	128						
51 4-Chloroaniline	127						
52 Hexachlorobutadiene	225						
57 N-Nitrosodi-n-butylamine	84						
58 p-Phenylenediamine	108						
61 Safrole	162						
59 4-Chloro-3-methylphenol	107						
62 2-Methylnaphthalene	142						
64 1-Methylnaphthalene	142						
65 1,2,4,5-Tetrachlorobenzene	216						

Compounds	QUANT SIG MASS	RT	EXP	RT	REL	RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/ml)	FINAL ( ug/L)
-----	----	==	-----	-----	-----	-----	-----	-----	-----
63 Hexachlorocyclopentadiene	237		Compound	Not	Detected.				
66 Isosafrole (#1)	162		Compound	Not	Detected.				
72 Isosafrole (#2)	104		Compound	Not	Detected.				
73 1-Chloronaphthalene	162		Compound	Not	Detected.				
71 2-Chloronaphthalene	162		Compound	Not	Detected.				
67 2,4,6-Trichlorophenol	196		Compound	Not	Detected.				
68 2,4,5-Trichlorophenol	196		Compound	Not	Detected.				
75 1,4-Naphthoquinone	158		Compound	Not	Detected.				
74 2-Nitroaniline	65		Compound	Not	Detected.				
78 1,4-Dinitrobenzene	168		Compound	Not	Detected.				
80 1,3-Dinitrobenzene	168		Compound	Not	Detected.				
76 Dimethyl phthalate	163		Compound	Not	Detected.				
79 2,6-Dinitrotoluene	165		Compound	Not	Detected.				
81 Acenaphthylene	152		Compound	Not	Detected.				
82 3-Nitroaniline	138		Compound	Not	Detected.				
84 Acenaphthene	153		Compound	Not	Detected.				
89 Pentachlorobenzene	250		Compound	Not	Detected.				
85 2,4-Dinitrophenol	184		Compound	Not	Detected.				
86 4-Nitrophenol	109		Compound	Not	Detected.				
87 2,4-Dinitrotoluene	165		Compound	Not	Detected.				
88 Dibenzofuran	168		Compound	Not	Detected.				
90 1-Naphthylamine	143		Compound	Not	Detected.				
91 2,3,4,6-Tetrachlorophenol	232		Compound	Not	Detected.				
92 2-Naphthylamine	143		Compound	Not	Detected.				
98 Thionazin	97		Compound	Not	Detected.				
93 Diethyl phthalate	149		Compound	Not	Detected.				
100 5-Nitro-o-toluidine	152		Compound	Not	Detected.				
96 Fluorene	166		Compound	Not	Detected.				
95 4-Chlorophenyl phenyl ether	204		Compound	Not	Detected.				
97 4-Nitroaniline	138		Compound	Not	Detected.				
99 4,6-Dinitro-2-methylphenol	198		Compound	Not	Detected.				
101 N-nitrosodiphenylamine	169		Compound	Not	Detected.				
182 Diphenylamine	169		Compound	Not	Detected.				
102 Azobenzene	77		Compound	Not	Detected.				
104 Sulfotepp	97		Compound	Not	Detected.				
105 1,3,5-Trinitrobenzene	213		Compound	Not	Detected.				
107 Phorate	121		Compound	Not	Detected.				
109 Phenacetin	108		Compound	Not	Detected.				
106 Diallate (#1)	86		Compound	Not	Detected.				
111 Diallate (#2)	86		Compound	Not	Detected.				
108 4-Bromophenyl phenyl ether	248		Compound	Not	Detected.				
110 Hexachlorobenzene	284		Compound	Not	Detected.				
112 Dimethoate	87		Compound	Not	Detected.				
114 4-Aminobiphenyl	169		Compound	Not	Detected.				
115 Pentachloronitrobenzene	237		Compound	Not	Detected.				
116 Pronamide	173		Compound	Not	Detected.				
113 Pentachlorophenol	266		Compound	Not	Detected.				

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL ( ug/L)
120 2-secbutyl-4,6-dinitropheno	211				Compound Not Detected.		
121 Disulfoton	88				Compound Not Detected.		
118 Phenanthrene	178				Compound Not Detected.		
122 Anthracene	178				Compound Not Detected.		
123 Carbazole	167				Compound Not Detected.		
124 Methyl parathion	109				Compound Not Detected.		
125 Di-n-butyl phthalate	149				Compound Not Detected.		
126 Parathion	109				Compound Not Detected.		
127 4-Nitroquinoline-1-oxide	190				Compound Not Detected.		
128 Methapyrilene	97				Compound Not Detected.		
129 Isodrin	193				Compound Not Detected.		
130 Fluoranthene	202				Compound Not Detected.		
131 Benzidine	184				Compound Not Detected.		
132 Pyrene	202				Compound Not Detected.		
134 Aramite (#1)	185				Compound Not Detected.		
135 Aramite (#2)	185				Compound Not Detected.		
136 p-Dimethylaminoazobenzene	120				Compound Not Detected.		
138 3,3'-Dimethylbenzidine	212				Compound Not Detected.		
137 Butyl benzyl phthalate	149				Compound Not Detected.		
139 2-Acetylaminofluorene	181				Compound Not Detected.		
140 3,3'-Dichlorobenzidine	252				Compound Not Detected.		
143 Bis(2-ethylhexyl) phthalate	149				Compound Not Detected.		
141 Benzo(a)anthracene	228				Compound Not Detected.		
144 Chrysene	228				Compound Not Detected.		
146 Di-n-octyl phthalate	149				Compound Not Detected.		
149 7,12-Dimethylbenz(a)anthrac	256				Compound Not Detected.		
147 Benzo(b)fluoranthene	252				Compound Not Detected.		
148 Benzo(k)fluoranthene	252				Compound Not Detected.		
150 Benzo(a)pyrene	252				Compound Not Detected.		
152 3-Methylcholanthrene	268				Compound Not Detected.		
153 Dibenz(a,j)acridine	279				Compound Not Detected.		
155 Indeno(1,2,3-cd)pyrene	276				Compound Not Detected.		
156 Dibenz(a,h)anthracene	278				Compound Not Detected.		
157 Benzo(g,h,i)perylene	276				Compound Not Detected.		
M 1 Total Isosafrole	162				Compound Not Detected.		
M 2 Total Diallate	86				Compound Not Detected.		
M 3 Total Aramite	185				Compound Not Detected.		
165 Chlorobenzilate	251				Compound Not Detected.		
168 Methyl Styrene	118				Compound Not Detected.		
27 1H-Indene	116				Compound Not Detected.		
199 1,4-Dioxane	88	2.696	2.691	(0.532)	1540654	893.656	942.675(A)
175 Biphenyl	154				Compound Not Detected.		
183 Hexachlorophene	196				Compound Not Detected.		
204 Atrazine	200				Compound Not Detected.		
205 Caprolactam	55	6.668	6.686	(1.063)	3499	2.16862	2.28758(a)

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.

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: K.i  
 Lab File ID: k3485.d  
 Lab Smp Id: GGTF31AC  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: petersonj  
 Method File: /chem/K.i/060204.b/8270C.m  
 Misc Info: 4145234

Calibration Date: 02-JUN-2004  
 Calibration Time: 17:18  
 Client Smp ID: 01-MW-10  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	101139	50570	202278	101751	0.61
49 Naphthalene-d8	372641	186320	745282	371322	-0.35
83 Acenaphthene-d10	249760	124880	499520	228381	-8.56
117 Phenanthrene-d10	498914	249457	997828	423951	-15.03
142 Chrysene-d12	578954	289477	1157908	479336	-17.21
151 Perylene-d12	517217	258608	1034434	438377	-15.24

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.07	4.57	5.57	5.07	0.00
49 Naphthalene-d8	6.28	5.78	6.78	6.27	-0.09
83 Acenaphthene-d10	7.97	7.47	8.47	7.97	0.00
117 Phenanthrene-d10	9.21	8.71	9.71	9.21	-0.06
142 Chrysene-d12	11.36	10.86	11.86	11.33	-0.21
151 Perylene-d12	12.86	12.36	13.36	12.83	-0.23

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.



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RECOVERY REPORT

Client Name: Cabrera Services  
Sample Matrix: LIQUID  
Lab Smp Id: GGTF31AC  
Level: LOW  
Data Type: MS DATA  
SpikeList File: 9HSOIL.spk  
Sublist File: HSL+AP9.sub  
Method File: /chem/K.i/060204.b/8270C.m  
Misc Info: 4145234

Client SDG: D4E210325  
Fraction: SV  
Client Smp ID: 01-MW-10  
Operator: petersonj  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	105.485	87.2894	82.75	53-107
\$ 70 2-Fluorobiphenyl	105.485	74.5178	70.64	31-105
\$ 133 Terphenyl-d14	105.485	81.2300	77.01	21-125
\$ 10 2-Fluorophenol	158.228	120.008	75.85	32-116
\$ 14 Phenol-d5	158.228	126.111	79.70	40-111
\$ 103 2,4,6-Tribromophen	158.228	156.262	98.76	42-122
\$ 163 1,2-Dichlorobenzen	105.485	60.9703	57.80	20-130
\$ 162 2-Chlorophenol-d4	158.228	129.796	82.03	20-130

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TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Cabrera Services                      Client SDG: D4E210325  
Lab Smp Id: GGTF31AC                              Client Smp ID: 01-MW-10  
Operator : petersonj                                Sample Date: 20-MAY-2004  
Sample Location: USDA National Disease Center    Sample Point: e Center  
Sample Matrix: WATER                              Date Received: 21-MAY-2004 00:00  
Analysis Type: SV                                    Level: LOW

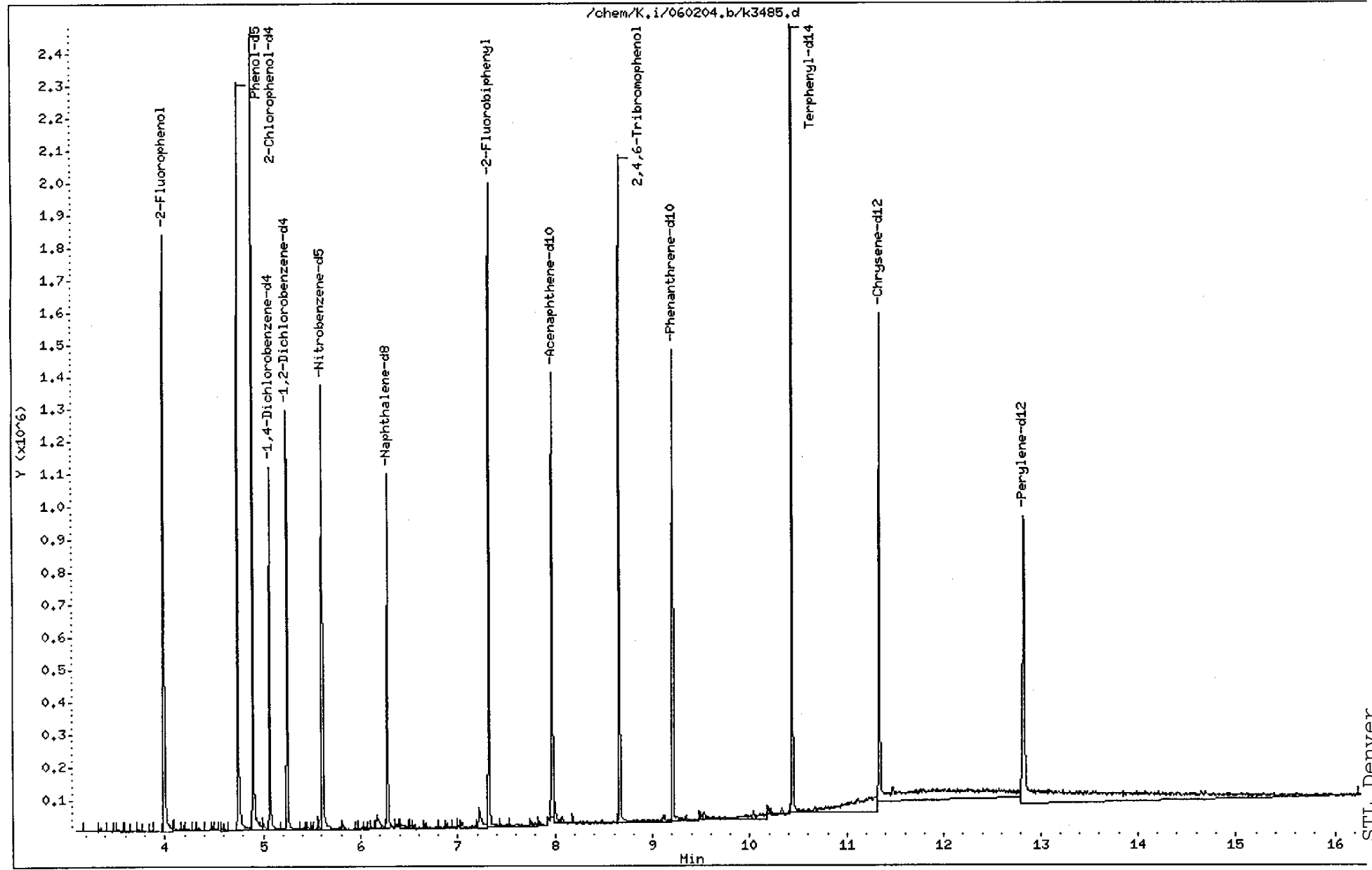
Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	2.456	9.34838	J
2.	Unknown	6.169	4.57394	J
3.	Unknown	7.226	5.83448	J
4. 50-84-0	Benzoic acid, 2,4-dichloro-	7.996	6.19314	NJ
5.	Unknown	10.035	14.1733	J

Data File: /chem/K.i/060204.b/k3485.d  
Date : 03-JUN-2004 00:47  
Client ID: 01-MW-10  
Sample Info: GGTF31AC,,D4E210325-009  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

Instrument: K.i  
Operator: petersonj  
Column diameter: 0.25



Date : 03-JUN-2004 00:47

Client ID: 01-MW-10

Instrument: K.i

Sample Info: GGTF31AC,,D4E210325-009

Volume Injected (uL): 0.5

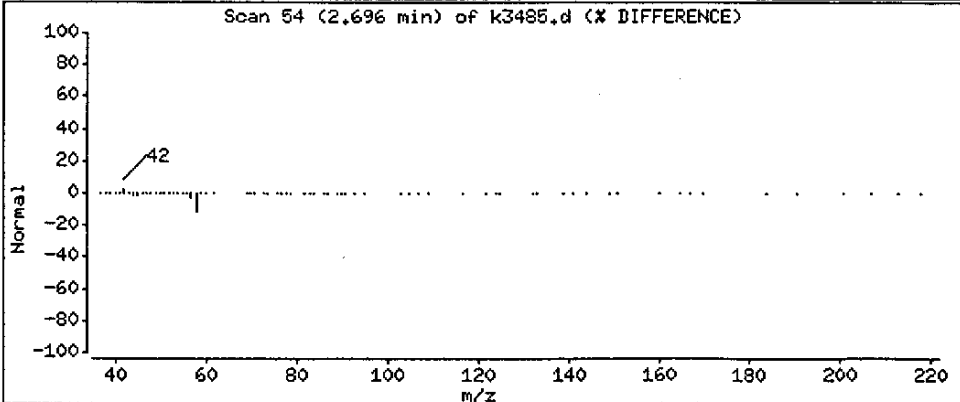
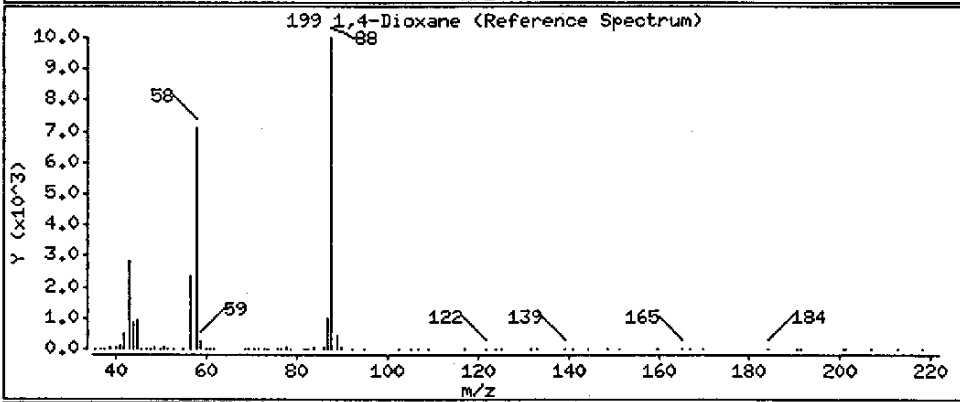
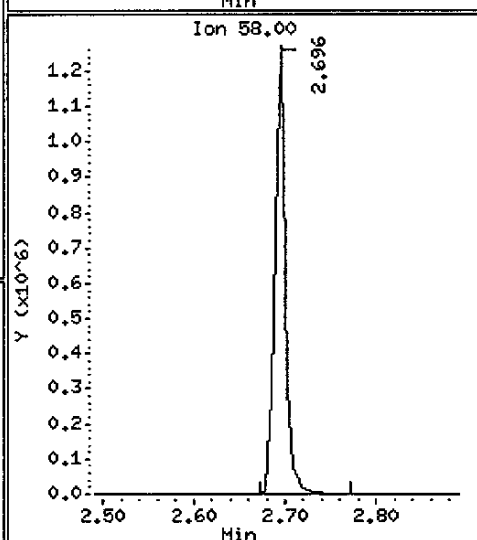
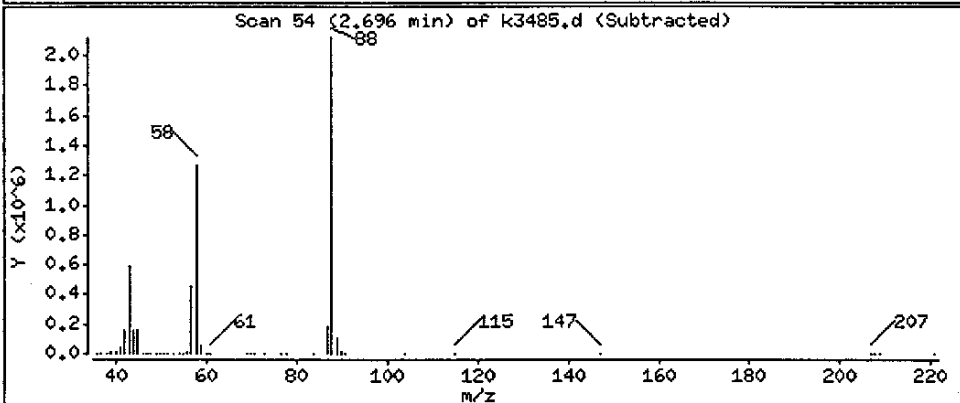
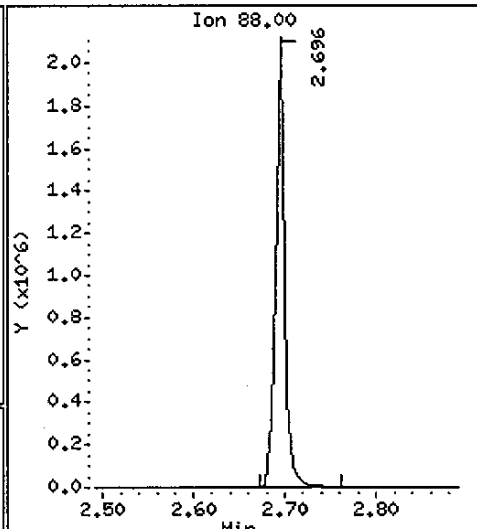
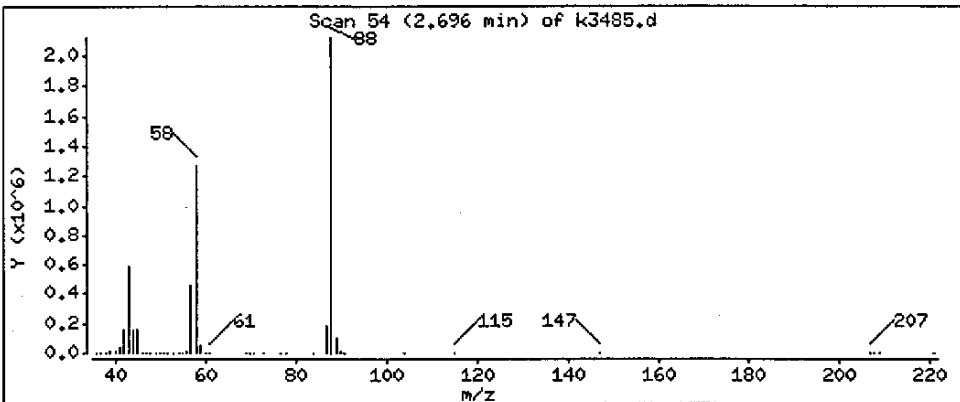
Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

199 1,4-Dioxane

Concentration: 942.675 ug/L



Date : 03-JUN-2004 00:47

Client ID: 01-MW-10

Instrument: K.i

Sample Info: GGTF31AC,,D4E210325-009

Volume Injected (uL): 0.5

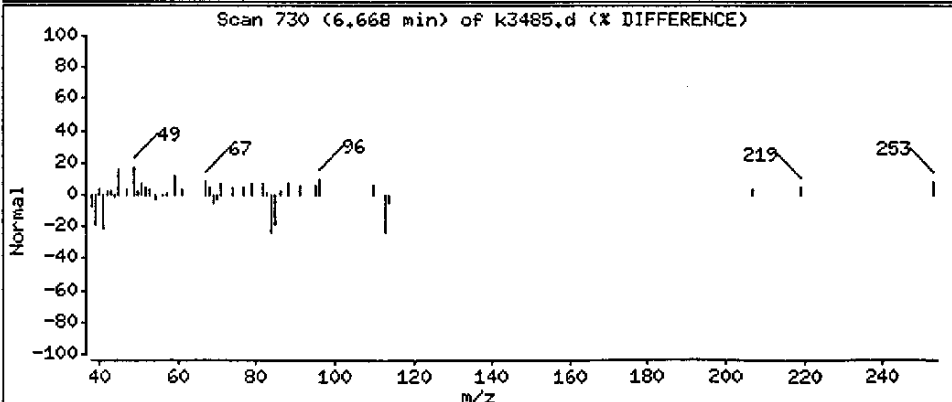
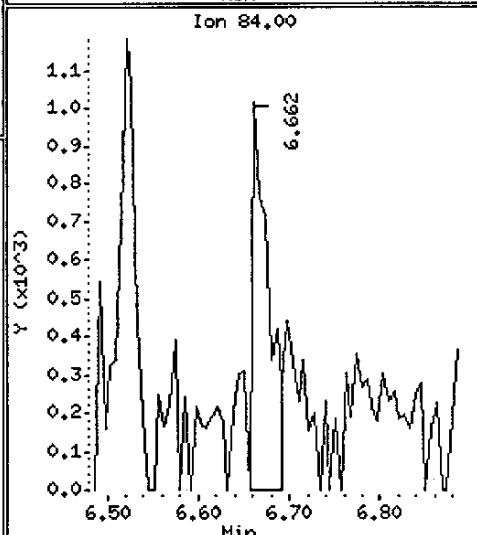
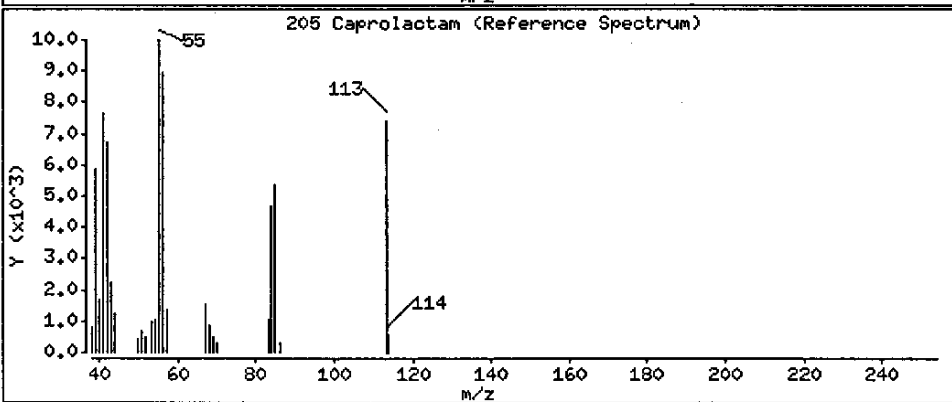
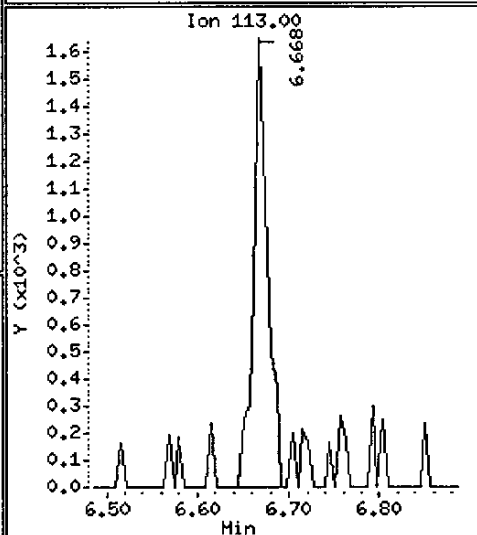
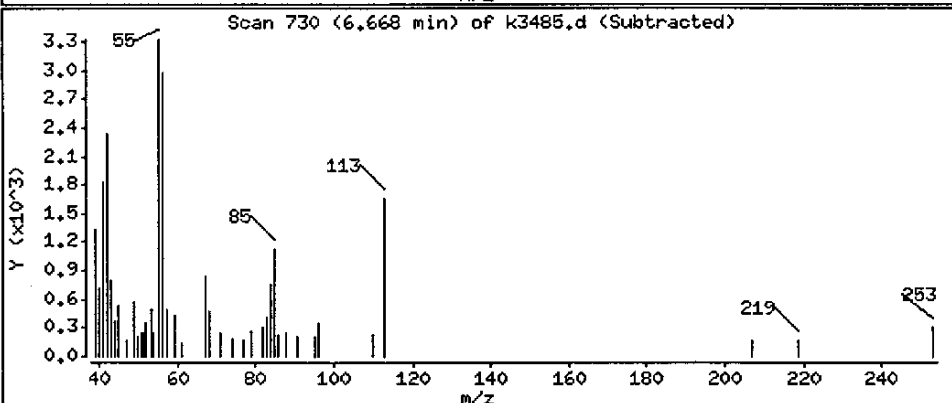
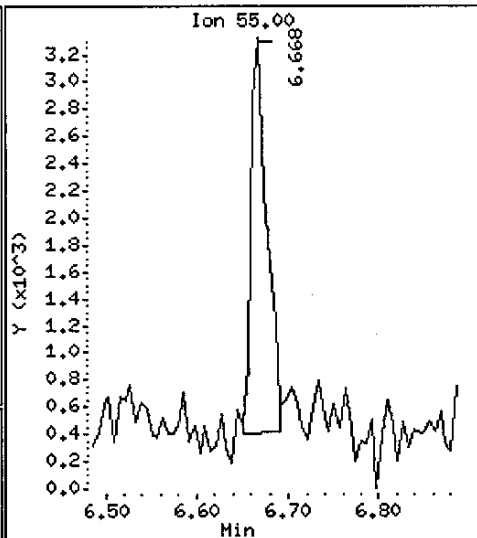
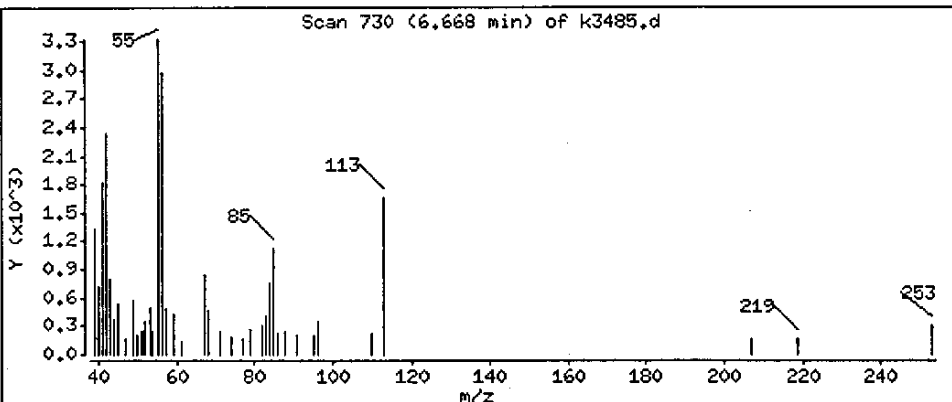
Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

205 Caprolactam

Concentration: 2.28758 ug/L



Date : 03-JUN-2004 00:47

Client ID: 01-MW-10

Instrument: K.i

Sample Info: CGTF31AC,,D4E210325-009

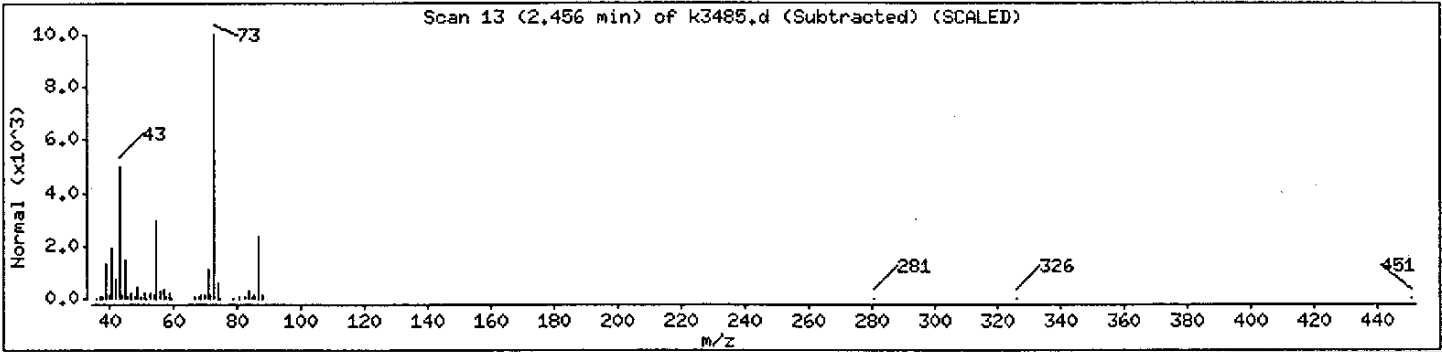
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Date : 03-JUN-2004 00:47

Client ID: 01-MW-10

Instrument: K.i

Sample Info: GGTF31AC,,D4E210325-009

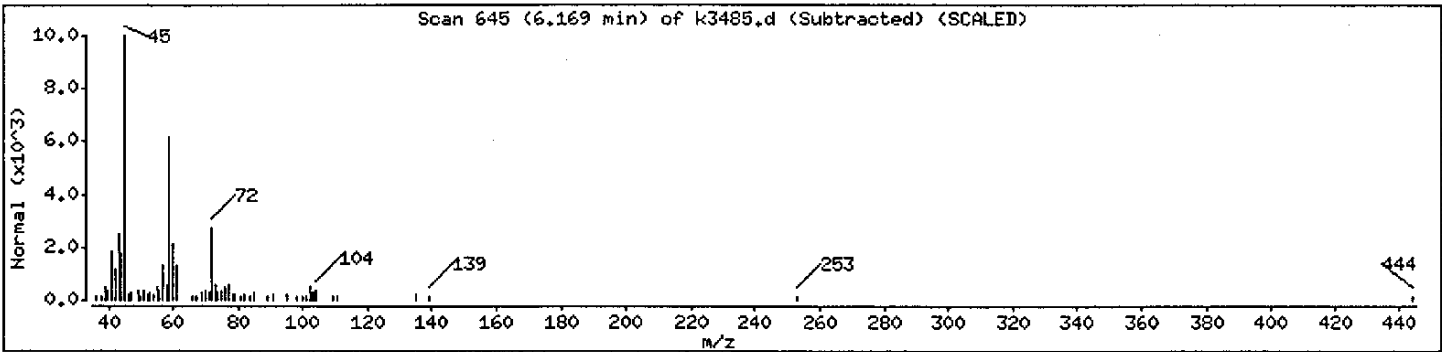
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



Date : 03-JUN-2004 00:47

Client ID: 01-MW-10

Instrument: K.i

Sample Info: GGTF31AC,,D4E210325-009

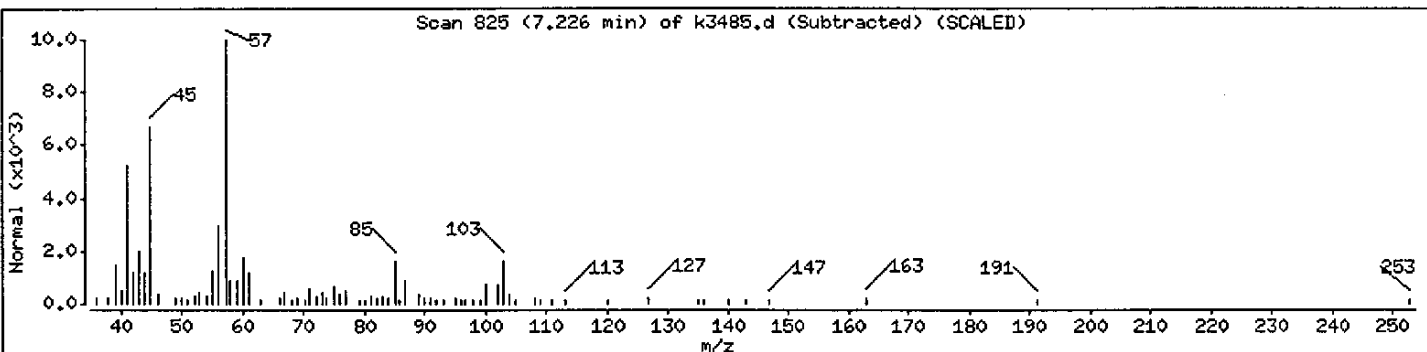
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0





Date : 03-JUN-2004 00:47

Client ID: 01-MW-10

Instrument: K.i

Sample Info: GGTF31AC,,D4E210325-009

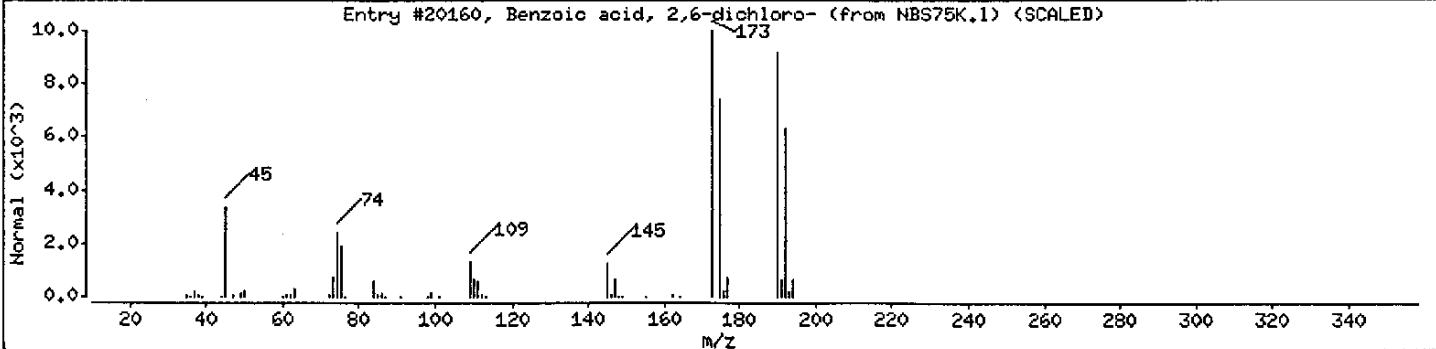
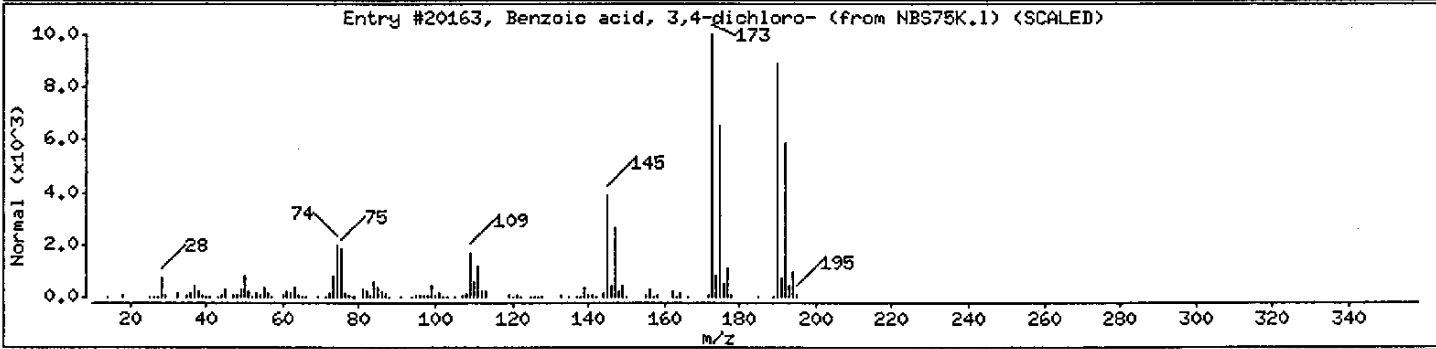
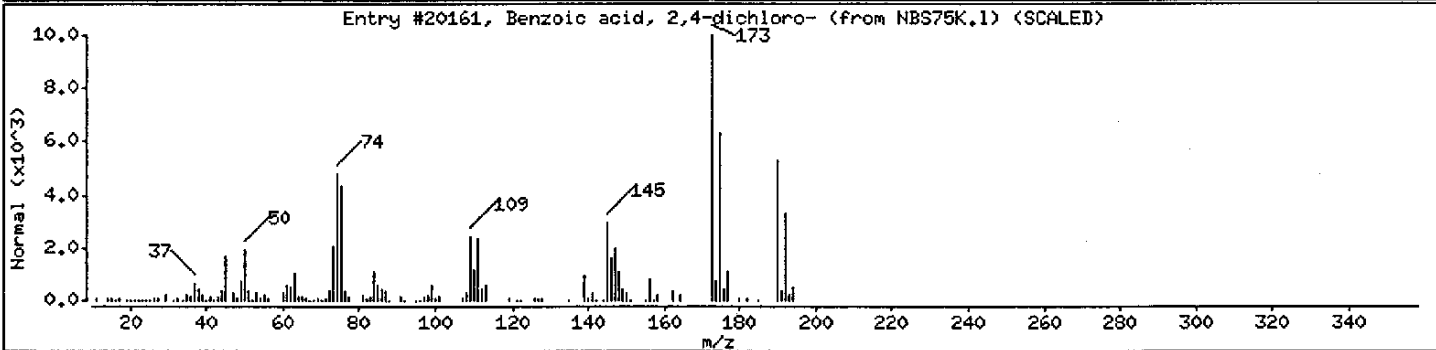
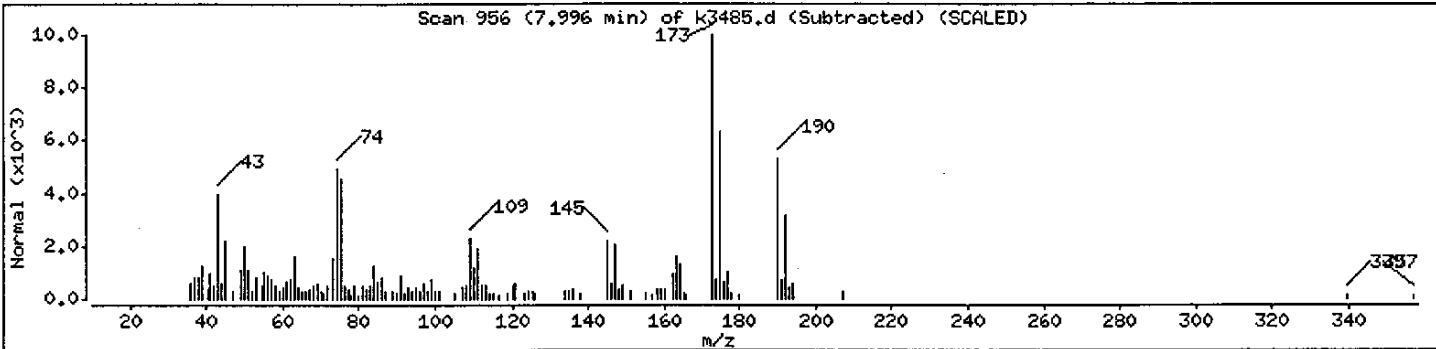
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzoic acid, 2,4-dichloro-	50-84-0	NBS75K.1	20161	95	C7H4Cl2O2	190
Benzoic acid, 3,4-dichloro-	51-44-5	NBS75K.1	20163	89	C7H4Cl2O2	190
Benzoic acid, 2,6-dichloro-	50-30-6	NBS75K.1	20160	81	C7H4Cl2O2	190



Date : 03-JUN-2004 00:47

Client ID: 01-MW-10

Instrument: K.i

Sample Info: GGTF31AC,,D4E210325-009

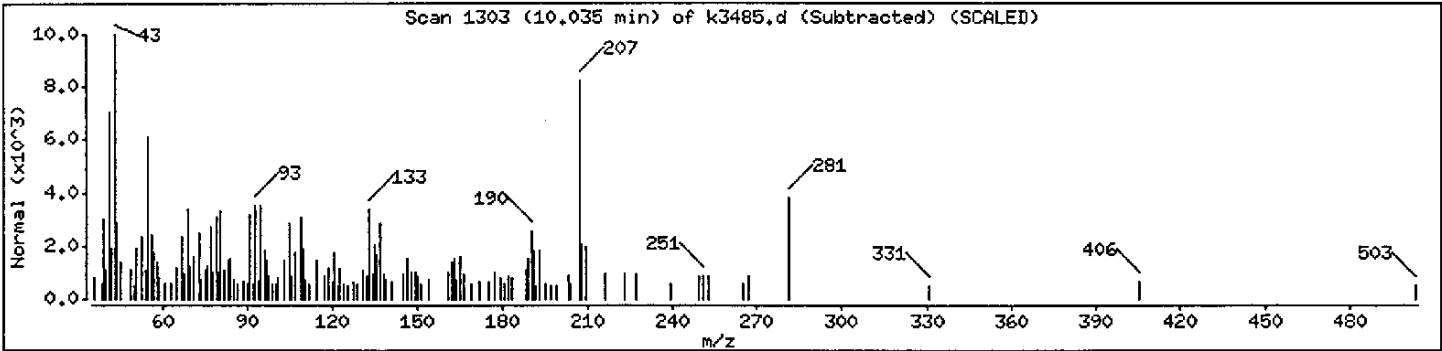
Volume Injected (uL): 0.5

Operator: petersonj

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0



# Semivolatile GC/MS

Supporting Documentation

Sample Sequence, Chromatograms/Mass Spectra



# STL

Lot ID: D4E210325

Client: Cabrera Services

Method: 8270C

Associated Samples: 10

Batch #(s): 4146358

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date: B/b 6.8.04

**GC/MS SEMIVOLATILE  
ORGANIC EXTRACTION  
LOG SHEETS**



**STL**

RQC058

Severn Trent Laboratories, Inc.  
EXTRACTION BENCH WORKSHEET

Run Date: 6/01/04  
Time: 15:24:21

LEV	LEV		LEV	LEV	
1	2		1	2	
Y	Y	Blank	Y	Y	Weights/Volumes
Y	Y	Check	Y	Y	Spike & Surrogate Worksheet
Y	Y	MS/MSD	Y	Y	Vial contains correct volume
			Y	Y	Labels, greenbars, worksheets
					computer batch: correct & all match
					Anomalies to Extraction Method

- Expanded Deliverable
- COC Completed
- Bench Sheet Copied
- Package Submitted to Analytical Group
- Bench Sheet Copied per COC

Extractionist: 002167 Adam Schneiderman

Concentrationist: 002770 Erma J. Pottruff  
003658 Sara Havig

Reviewer/Date: HAVIGS / 6/01/04

\*\*\*\*\*  
\*  
\* QC BATCH: 4146358 \*  
\*  
\*\*\*\*\*

PREP DATE: 5/25/04 16:00  
COMP DATE: 6/01/04 15:15

Base/Neutrals and Acids (8270C)  
SONICATION - Low Level

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH'S INIT	ADJ1	ADJ2	EXTRACTION	SOLVENTS VOL EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
5/26/04 COMMENTS: DARK GREENISH-BROWN	6/04/04	D4E150139-009 GGCRO-1-AR	D	13	QL	SOLID	30g 1.00mL	NA	NA	NA	1:1	300.0	.0	1ML BNA1530 5-12-4
5/26/04 COMMENTS: DARK GREENISH-BROWN	6/04/04	D4E150139-009 GGCRO-1-CPS	D	13	QL	SOLID	30g 1.00mL	NA	NA	NA	1:1	300.0	.0	1ML BNA1528 5-10-4 1ML BNA1530 5-12-4
5/26/04 COMMENTS: DARK GREENISH-BROWN	6/04/04	D4E150139-009 GGCRO-1-COD	D	13	QL	SOLID	30g 1.00mL	NA	NA	NA	1:1	300.0	.0	1ML BNA1528 5-10-4 1ML BNA1530 5-12-4
6/03/04 COMMENTS:	6/10/04	D4E210325-010 GGTF4-1-AD	D	13	QL	SOLID	30g 1.00mL	NA	NA	NA	1:1	300.0	.0	1ML BNA1530 5-12-4
6/03/04 COMMENTS:	6/02/04	D4E210434-001 GGVEH-1-AE	R	13	QL	SOLID	30g 1.00mL	NA	NA	NA	1:1	300.0	.0	1ML BNA1530 5-12-4
5/26/04 COMMENTS:	0/00/00	D4E250000-358 GG152-1-AAB		13	QL	SOLID	30g 1.00mL	NA	NA	NA	1:1	300.0	.0	1ML BNA1530 5-12-4
5/26/04 COMMENTS:	0/00/00	D4E250000-358 GG152-1-ACC		13	QL	SOLID	30g 1.00mL	NA	NA	NA	1:1	300.0	.0	1ML BNA1528 5-10-4 1ML BNA1530 5-12-4

RQC058

Severn Trent Laboratories, Inc.  
EXTRACTION BENCH WORKSHEET

Run Date: 6/01/04  
Time: 15:24:21

1249

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\*  
\* QC BATCH: 4146358 \*  
\*  
\*\*\*\*\*

PREP DATE: 5/25/04 16:00  
COMP DATE: 6/01/04 15:15

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT ADJ1 ADJ2	SOLVENTS EXTRACTION VOL EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
5/26/04	0/00/00	D4E250000-358 GG152-1-ADL	R	13	QL	SOLID	30g 1.00mL	NA NA NA	1:1	300.0	.0 1ML BNA1528 5-10-4 1ML BNA1530 5-12-4

DEN-OP-0005 MECL2:Y52E39 ACETONE:A05E71 NA2SO4:Y31626 SAND:Y47595  
S/S:AIS W:KA BATH TEMP:85C

R = RUSH C = CLP  
E = EPA 600 D = EXP. DEL.  
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 8

STL Denver

**GC/MS SEMIVOLATILE  
INSTRUMENT  
LOG SHEETS**



**STL**

GC/MS Semi-Volatile Analysis

CORP-MS-0001 DEN or DEN-MS-0011 (8270C/625)

Maint. replaced septa, gold seal, clipped 28<sup>u</sup> column.  
Baked. Clean Source

DEN-MS-0002 (8270C SIM)

Instrument

1377

5973 MSD

Target Batch 052904.b

IS: MSBNA

Lot # / Sample	W.O.#	Amount	Dilution	Date	Initials	File Number	IS OK	SS OK	DIL OK	Comments	Batch #
Rinse				09-29-04	MMX	P.2081	MM	MM	MM		
DFTPP	BNA1512	25ug OC	100%			82				Hit, adj EMV	
						83				Hit, adj EMV	
						84	✓			Hit @ 08:12 ←	
<del>HSL-00</del> AP9-0080	BNA1406	50ug				85	✓			OK <sub>n</sub>	
0010		10				86	✓			OK <sub>n</sub>	
0020		20				87	✓			OK <sub>n</sub>	
0050		50				88	✓			OK <sub>n</sub>	
0120		20				89	✓			OK <sub>n</sub>	
0160		60				90	✓			OK <sub>n</sub>	
0200		20				91	✓			OK <sub>n</sub>	
AP9-0100 SSV	BNA1417	100				92	✓			OK <sub>n</sub>	
HSL-0050	BNA1509	50ug	1:5			93	✓			(OK)	
HSL-0075		5				94	✓				
HSL-0100		10				95	✓				
HSL-0120		20				96	✓				
HSL-0150		50				97	✓				
HSL-0180		100				98	✓				
HSL-0160		160				99	✓				
HSL-0200		200				P2100	✓				
HSL-0100-SSV	BNA1346	100				01	✓			Amiline / Fes co-distilling	
(0100-SSV)	BNA1518	80				02	✓			OK <sub>n</sub>	



GC/MS Semi-Volatile Analysis

CORP-MS-0001 DEN or DEN-MS-0011 (8270C/625)

DEN-MS-0002 (8270C SIM)

Instrument P

Target Batch 052904.6 (cont)

IS: MSBNA

1377 5973 MSD

Lot # / Sample	W.O.#	Amount	Dilution	Date	Initials	File Number	IS OK	SS OK	DIL OK	Comments	Batch #
CUST010	BNA 1518	10 <sup>uL</sup>	0.5 $\mu$ L	5/29/04	CK	P2103	✓	NA	NA	OK <sub>n</sub>	
CUST010		20 <sup>uL</sup>				04	✓			OK <sub>n</sub>	
CUST010		50				05	✓			OK <sub>n</sub>	
CUST010		120				06	✓			OK <sub>n</sub>	
CUST010		160				07	✓			OK <sub>n</sub>	
CUST010		220				08	✓			OK <sub>n</sub>	
CUST010-SSV	BNA 1250	10 <sup>uL</sup>				09	✓	✓	✓	OK <sub>n</sub>	
HSL-0100 SSV	BNA 1346	100 <sup>ng</sup> /μL	MEK	05-29-04	MEK	P2110	✓	NA	NA	OK <sub>n</sub> see bag: 060304, p for 3rd run on SSV. 6.3.04 B/S	

GC/MS Semi-Volatile Analysis

CORP-MS-0001 DEN or DEN-MS-0011 (8270C/625)

DEN-MS-0002 (8270C SIM)

Instrument P

Target Batch 052904.b

Maint. replaced septa, gold seal, clipped 28<sup>u</sup> column.  
Baked. Clean Source

IS: MSBNA 1377 5973 MS0

Lot # / Sample	W.O.#	Amount	Dilution	Date	Initials	File Number	IS OK	SS OK	DIL OK	Comments	Batch #
Rinse				05-29-04	MMX	P2081	NA	NA	NA		
DETPP	BNA1512	25ng OC	100%			82				Hit, adj EMV	
						83				Hit, adj EMV	
						84	✓			Hit @ 08:12 ←	
<del>HSL-00</del> AP9-0080	BNA1406	50ng				85	✓			OK <sub>p</sub>	
0010		10				86	✓			OK <sub>p</sub>	
0020		20				87	✓			OK <sub>p</sub>	
0050		50				88	✓			OK <sub>p</sub>	
0120		120				89	✓			OK <sub>p</sub>	
0160		160				90	✓			OK <sub>p</sub>	
0200		200				91	✓			OK <sub>p</sub>	
AP9-0100 SSV	BNA1417	100				92	✓			OK <sub>p</sub>	
HSL-0050	BNA1509	50ng	1.5%			93	✓			(OK)	
HSL-0025		5				94	✓				
HSL-0010		10				95	✓				
HSL-0020		20				96	✓				
HSL-0050		50				97	✓				
HSL-0120		120				98	✓				
HSL-0160		160				99	✓				
HSL-0200		200				P2100	✓				
HSL-0100-SV	BNA1346	100				01	✓			Amiline/His collecting	
(COLLECTOR)	BNA1518	80				02	✓			OK <sub>p</sub>	

GC/MS Semi-Volatile Analysis

CORP-MS-0001 DEN or DEN-MS-0011 (8270C/625)

DEN-MS-0002 (8270C SIM)

Instrument P

Target Batch 052904.6 (err)

IS: MSBNA 1377 <sup>973</sup>MSD

Lot # / Sample	W.O.#	Amount	Dilution	Date	Initials	File Number	IS OK	SS OK	DIL OK	Comments	Batch #	
CUST010	NA	BNA-1518	10 <sup>uL</sup> NA	0.5 <sup>uL</sup>	5/29/04	EX	P2103	✓	NA	NA	OK <sub>n</sub>	
CUST0120			20				04	✓			OK <sub>n</sub>	
CUST0150			50				05	✓			OK <sub>n</sub>	
CUST0120			120				06	✓			OK <sub>n</sub>	
CUST0160			160				07	✓			OK <sub>n</sub>	
CUST0200			200				08	✓			OK <sub>n</sub>	
CUST0100-SSV	✓	BNA-1250	100	✓	✓	✓	09	✓	✓	✓	OK <sub>n</sub>	
HSL-0100 SSV		BNA-1346	100 <sup>ng/L</sup>	MEK	05-29-04	MEK	P2110	✓	NA	NA	OK <sub>n</sub>	

## GC/MS Semi-Volatile Analysis

CORP-MS-0001 DEN or DEN-MS-0011 (8270C/625)

DEN-MS-0002 (8270C SIM)

Instrument RTarget Batch 060304.b

Maint: none

IS: MSBNA 1377 5873 MSD

Lot # / Sample	W.O.#	Amount	Dilution	Date	Initials	File Number	IS OK	SS OK	DIL OK	Comments	Batch #
Rinse				06-03-04	MUK	P2111	NA	NA	NA		
DFTPP.	BNA1512	25 $\mu$ g	100%			12	↓	↓	↓	NAE 0535 ←	
HSL-0080	↓ 1509	80% $\mu$ l				13	✓	↓	↓	OK <sub>0</sub>	
HSL-0100 SSV	↓ 1346	100 $\mu$ l				14	✓	↓	↓	OK <sub>0</sub>	
AP9-0080	BNA 1406	80% $\mu$ l				15		↓	↓		

## GC/MS Semi-Volatile Analysis

CORP-MS-0001 DEN or DEN-MS-0011 (8270C/625)

DEN-MS-0002 (8270C SIM)

Instrument PTarget Batch 060304.bMaint: noneIS: MSBNA 1377 3973 MSD

Lol # / Sample	W.O.#	Amount	Dilution	Date	Initials	File Number	IS OK	SS OK	DIL OK	Comments	Batch #
Rinse				06-03-04	MUK	P2111	NA	NA	NA		
DFTPP	BNA1512	25g	100%			12	↓	↓	↓	HMC 0535 ←	
HSL-0080	↓ 1509	80%	↓			13	✓	↓	↓	OK <sub>D</sub>	
HSL-0100 SSV	↓ 1346	100%	↓			14	✓	↓	↓	OK <sub>D</sub>	
AP9-0080	BNA1406	80%	↓			15	✓	↓	↓	OK <sub>D</sub>	
D4E250000	358 <sub>B</sub> GG1521AA	30g				16	✓	✓	✓	OK <sub>D</sub>	4146358
↓	358 <sub>C</sub> ↓ 21AC					17	✓	✓	✓	OK <sub>D</sub>	↓
↓	358 <sub>C</sub> ↓ 21AD					18	✓	✓	✓	OK <sub>D</sub>	↓
D4E190000	127 <sub>B</sub> GGH3E1AA	1000mL	↓			19	✓	✓	✓	OK <sub>D</sub>	4140127/28
D4E180231	001 GGGP2AR		4X			20	✓	DIL	✓	OK <sub>D</sub>	↓
↓	002 ↓ GK2AR		4X			21	✓	DIL	✓	OK <sub>D</sub>	↓
D4E210325	010 GGTF41AD		100%			22	✓	✓	✓	OK <sub>D</sub>	4146358
D4E180165	009 GGF <sub>X</sub> Q1AE					23	✓	✓	✓	OK <sub>D</sub>	4140128
↓	010 ↓ W1AE					24	✓	✓	✓	OK <sub>D</sub>	↓
↓	011 ↓ X1AE					25	✓	✓	✓	OK <sub>D</sub>	↓
↓	012 ↓ 21AE					26	✓	✓	✓	OK <sub>D</sub>	↓
D4E070295	001 GFR5RIAC					27	✓	✓	✓	OK <sub>D</sub>	4132622
↓	004 ↓ O1AC					28	✓	✓	✓	OK <sub>D</sub>	↓
D4E060389	001 GFPJH1AC					29	✓	✓	✓	OK <sub>D</sub>	↓
↓	002 ↓ TDA1AC					30	✓	✓	✓	OK <sub>D</sub>	↓
D4E210434	001 GGVEH1AE					31	✓	✓	✓	OK <sub>D</sub>	4146358
D4E150139	004 GGCR01AR		↓	↓	↓	32	✓	✓	✓	OK <sub>D</sub>	↓

GC/MS Semi-Volatile Analysis

CORP-MS-0001 DEN or DEN-MS-0011 (8270C/25)

DEN-MS-0002 (8270C SIM)

Instrument P

Target Batch 060304,b

IS: MSBNA 1377 5973 MSD

Lot # / Sample	W.O.#	Amount	Dilution	Date	Initials	File Number	IS OK	SS OK	DIL OK	Comments	Batch #
P4E150139	009 <sub>s</sub> GGCRD1CP		100% <sub>b</sub>	06-03-04	MMW	P2133	✓	✓	✓	OK <sub>o</sub>	4146358
↓	009 <sub>p</sub> ↓ OICR		↓	↓	↓	↓ 34	✓	✓	✓	OK <sub>o</sub> 15141 ←	↓
Rinse	_____	_____	_____	↓	↓	↓ 35	NA	→	→		
Rinse	_____	_____	_____	↓	↓	↓ 36	NA	→	→		

**GC/MS SEMIVOLATILE  
STANDARD DATA**

**SEVERN**  
**TRENT**

**STL**

GC/MS Initial Calibration Review Checklist

STL Denver

1259

Instrument ID and Date: P 052904.6

Check Method Used: Analysis  625  8270  Other SV HSL/AFCEE ⊕

524.2  624  8260B  Other VOA

VOA Preparation  5mL  20mL  5035 Low  5035 High  5030 Low  5030 High

Review Items	Level 1			Level 2	Comments
	Yes	No	N/A		
<b>Initial Calibration</b>					
1. BFB/DFIPP meets criteria?	✓			✓	
2. ICAL date and instrument ID verified?	✓			✓	
3. Sufficient number of calibration points used?	✓			✓	
4. Reasons for removal of points documented?	✓			✓	some points removed below RL
5. %RSD or correlation coefficient within method limits?	✓			✓	
6. If RRF used for ICAL, were all compounds within 15% RSD?	✓			✓	List all exceptions below (cpd & RSD)
7. Response factors meet criteria?	✓			✓	
8. Isomeric pairs checked for correct peak assignment?	✓			✓	
9. Data checked for detector saturation?	✓			✓	
10. Standards traceability properly documented?	✓			✓	
11. Manual integrations documented and checked?	✓			✓	
12. 2 <sup>nd</sup> source ICV recovery 75-125% for DoD projects, 65-135% (±55% of expected for poor performers) for non-DoD?	✓			✓	see below

1st Level Reviewer: MRV

Date: 06-03-04

2nd Level Reviewer: B/S

Date: 6.3.04

75% RSD  
Atrazine 78.4%  
Benzidine 16.9%

2nd Source  
Aniline 60%  
Atrazine 592%  
n-docosane 131%

STL Denver



Date : 29-MAY-2004 08:12

Client ID: DFTPP

Instrument: P.i

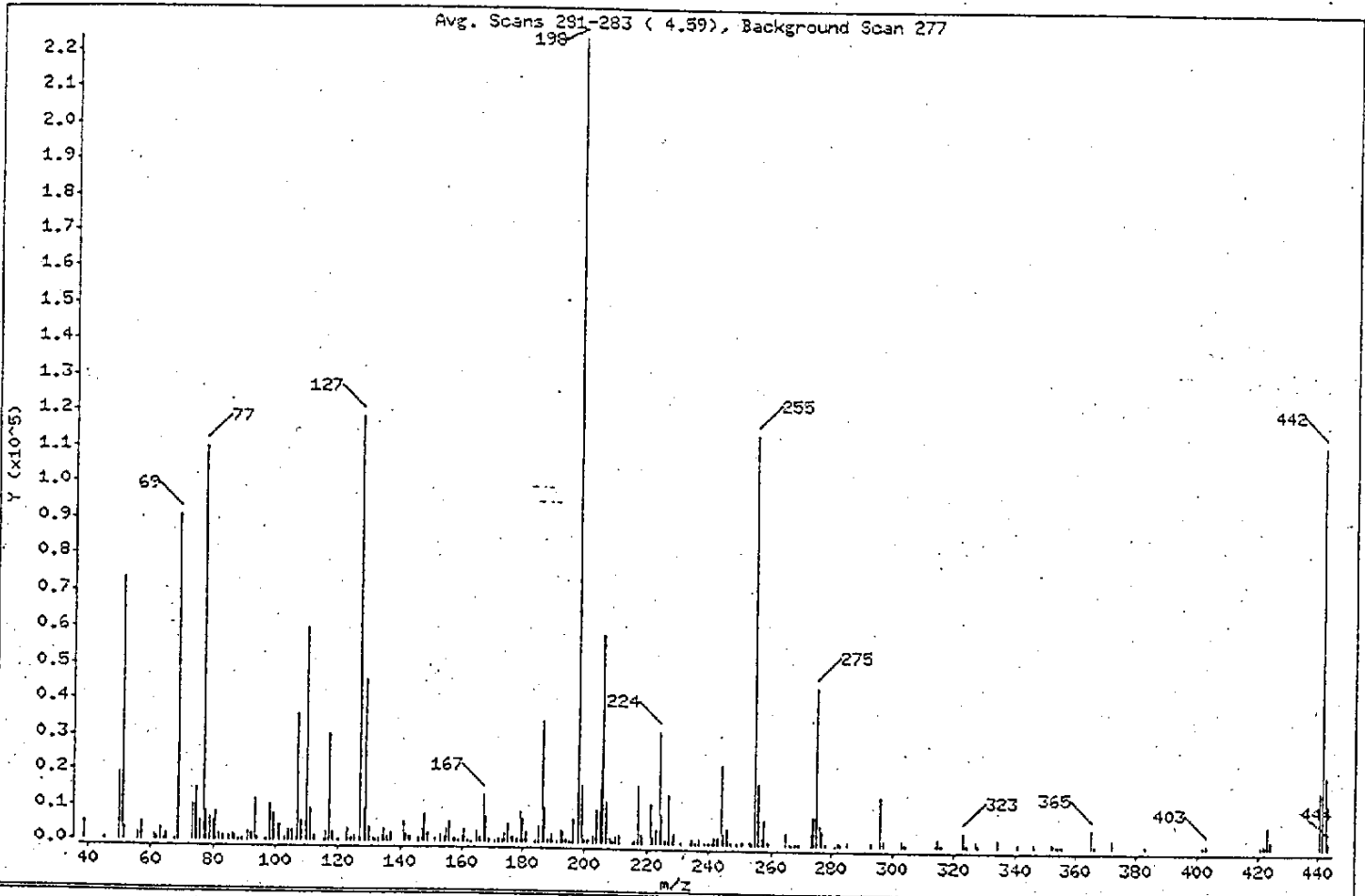
Sample Info: DFTPP,BNA1512,P:041903,E:041908

Operator: kidd

Column phase: Rtx-5ms

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	32.83
68	Less than 2.00% of mass 69	0.15 ( 0.37)
69	Mass 69 relative abundance	40.59
70	Less than 2.00% of mass 69	0.00 ( 0.00)
127	40.00 - 60.00% of mass 198	53.19
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.29
275	10.00 - 30.00% of mass 198	20.11
365	Greater than 1.00% of mass 198	2.39
441	Present, but less than mass 443	7.15
442	40.00 - 100.00% of mass 198	50.03
443	17.00 - 23.00% of mass 442	9.19 ( 18.37)

*shaker*  
C

Date : 29-MAY-2004 08:12

Client ID: DFTPP

Instrument: P.i

Sample Info: DFTPP,BNA1512,P:041903,E:041905.

Operator: kiddd

Column phase: Rtx-5ms

Column diameter: 0.25

Data File: p2084.d  
 Spectrum: Avg. Scans 281-283 ( 4.59), Background Scan 277  
 Location of Maximum: 198.00.  
 Number of points: 213

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	855	122.00	1905	198.00	1178	257.00	1872
39.00	4941	123.00	3456	199.00	2796	258.00	7075
45.00	305	124.00	1176	191.00	588	259.00	923
50.00	19096	125.00	1683	192.00	3363	265.00	3639
51.00	73368	127.00	118848	193.00	3236	266.00	455
52.00	3512	128.00	9084	194.00	1021	267.00	249
56.00	1840	129.00	45536	195.00	395	268.00	322
57.00	5150	130.00	4005	196.00	6709	269.00	322
61.00	1712	131.00	821	198.00	223424	273.00	3449
62.00	996	132.00	353	199.00	16284	274.00	7969
63.00	3602	133.00	812	200.00	1073	275.00	44936
64.00	333	134.00	1883	201.00	830	276.00	5630
65.00	2285	135.00	3628	203.00	1945	277.00	4276
68.00	335	136.00	1303	204.00	9026	278.00	515
69.00	90696	137.00	2385	205.00	15270	281.00	9
73.00	1116	141.00	5828	206.00	58408	282.00	926
74.00	10221	142.00	2135	207.00	11597	283.00	452
75.00	15000	143.00	1399	208.00	1494	285.00	906
76.00	5833	146.00	975	209.00	336	293.00	957
77.00	109712	147.00	3781	210.00	1799	296.00	13676
78.00	8308	148.00	7745	211.00	2401	297.00	1795
79.00	6537	149.00	2510	215.00	327	303.00	1558
80.00	5409	151.00	825	216.00	1247	304.00	307
81.00	8002	153.00	1907	217.00	16192	314.00	482
82.00	1901	154.00	1353	218.00	2341	315.00	2072
83.00	1570	155.00	3512	221.00	11054	316.00	396
85.00	1469	156.00	5780	222.00	2003	323.00	3915
86.00	1870	157.00	1028	223.00	4083	324.00	374
87.00	1445	158.00	953	224.00	31888	327.00	1285
88.00	366	159.00	413	225.00	8283	328.00	390
89.00	352	160.00	1737	226.00	881	334.00	2290
91.00	2550	161.00	3538	227.00	14114	341.00	1019
92.00	2081	162.00	424	228.00	2077	346.00	798
93.00	11910	163.00	202	229.00	2996	352.00	1094
94.00	1003	165.00	3295	231.00	617	353.00	333

Date : 29-MAY-2004 08:12

Client ID: DFTPP

Instrument: P.i

Sample Info: DFTPP,BNA1S12,P:041903,E:041905

Operator: kiddd

Column phase: Rtx-5ms

Column diameter: 0.25

Data File: p2084.d

Spectrum: Avg. Scans 281-283 ( 4.59), Background Scan 277

Location of Maximum: 198.00

Number of points: 213

m/z	Y	m/z	Y	m/z	Y	m/z	Y
96.00	705	166.00	1382	234.00	432	354.00	459
97.00	332	167.00	13263	235.00	1285	355.00	345
98.00	10333	168.00	7136	236.00	447	365.00	5331
99.00	7664	169.00	969	237.00	1635	366.00	395
101.00	4765	171.00	304	239.00	391	372.00	1956
103.00	809	172.00	851	240.00	301	383.00	445
104.00	2875	173.00	933	241.00	439	402.00	583
105.00	2827	174.00	2571	242.00	1860	403.00	947
106.00	1047	175.00	5341	243.00	1961	421.00	644
107.00	36080	176.00	1414	244.00	22768	422.00	785
108.00	5777	177.00	1781	245.00	2841	423.00	6230
110.00	60056	178.00	993	246.00	4868	424.00	2969
111.00	9372	179.00	8963	247.00	753	441.00	15984
112.00	1332	180.00	6917	249.00	723	442.00	111800
115.00	672	181.00	2893	251.00	1067	443.00	20528
116.00	2320	184.00	459	253.00	878	444.00	2147
117.00	30424	185.00	4412	254.00	527		
118.00	2366	186.00	34344	255.00	113776		
120.00	359	187.00	9916	256.00	17432		

Data File: /chem/P.I/052904.b/p2084.d

Page 1

Date : 29-MAY-2004 08:12

Client ID: DFTPP

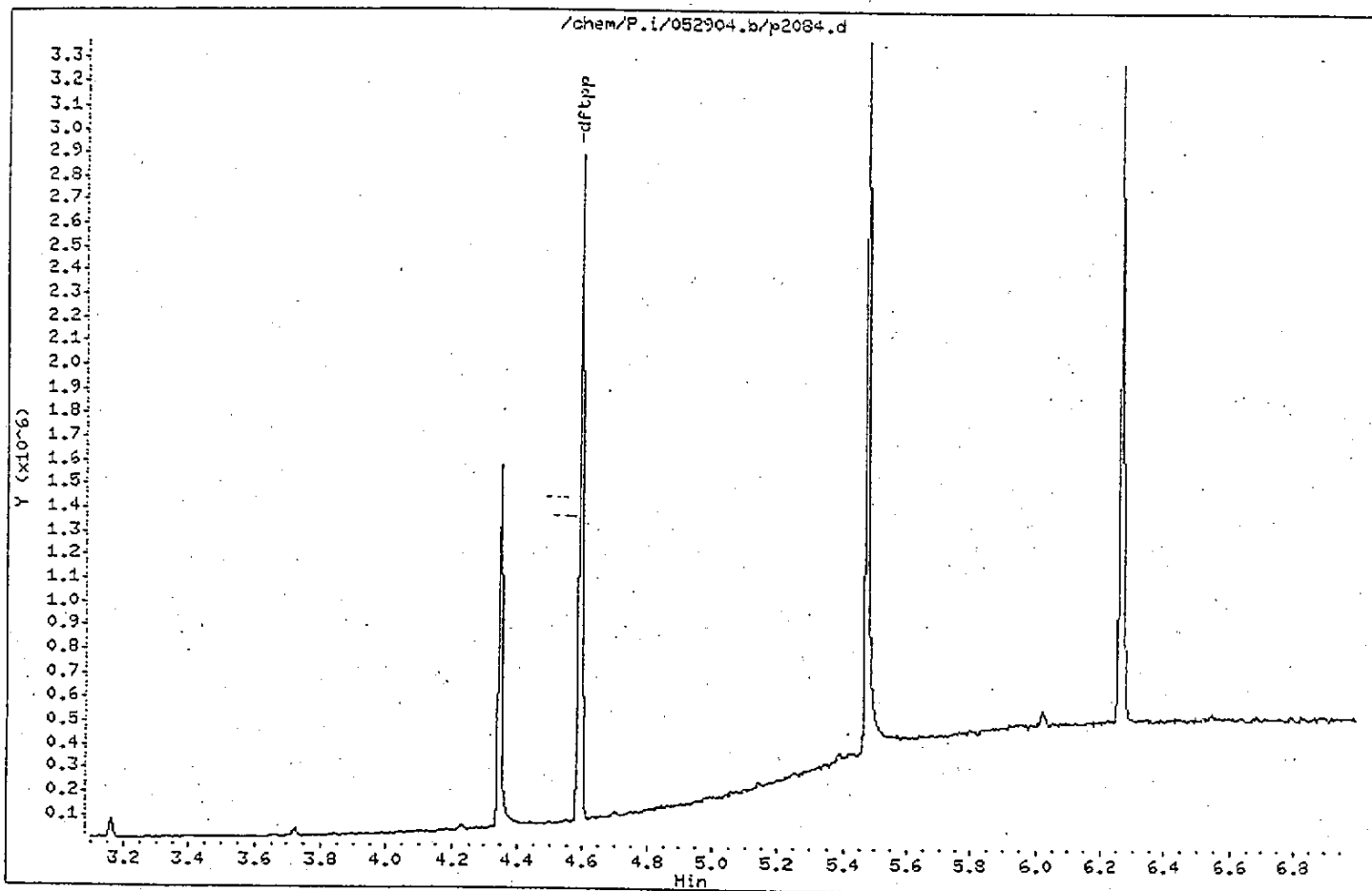
Instrument: P.I

Sample Info: DFTPP,DNA1512,P:041903,E:041905

Operator: kiddd

Column phase: Rtx-5ms

Column diameter: 0.25

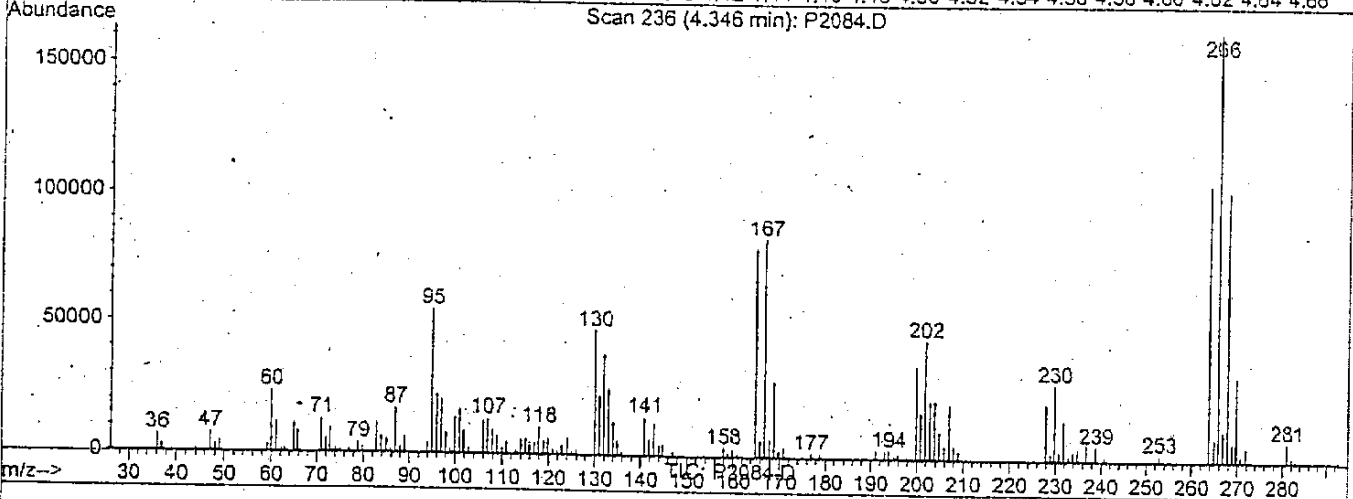
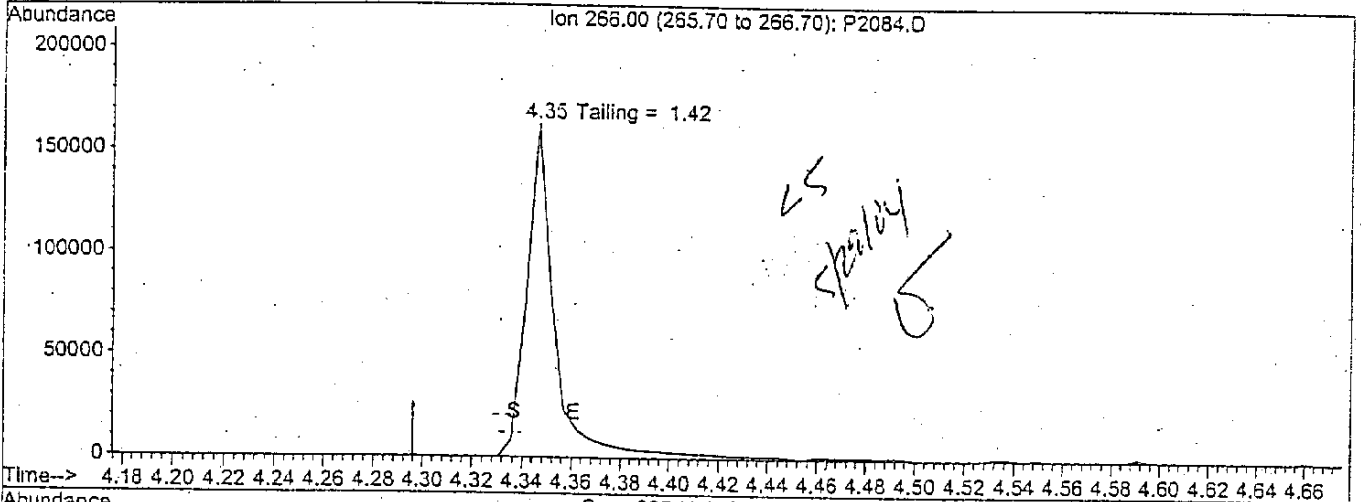


# Quantitation Report

Data File : C:\HPCHEM\1\DATA\052904.B\P2084.D  
 Acq On : 29 May 2004 8:12 am  
 Sample : DFTPP, BNA1512, P:041903, E:041905  
 Misc :  
 Quant Time: May 29 15:18 19104

Vial: 2  
 Operator: kidd  
 Inst : GC/MS Ins  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPPB.M (RTE Integrator)  
 Title :  
 Last Update : Wed May 12 11:21:34 2004  
 Response via : Single Level Calibration



(1) Pentachlorophenol

4.35min 32.65ug/ml

response 130443

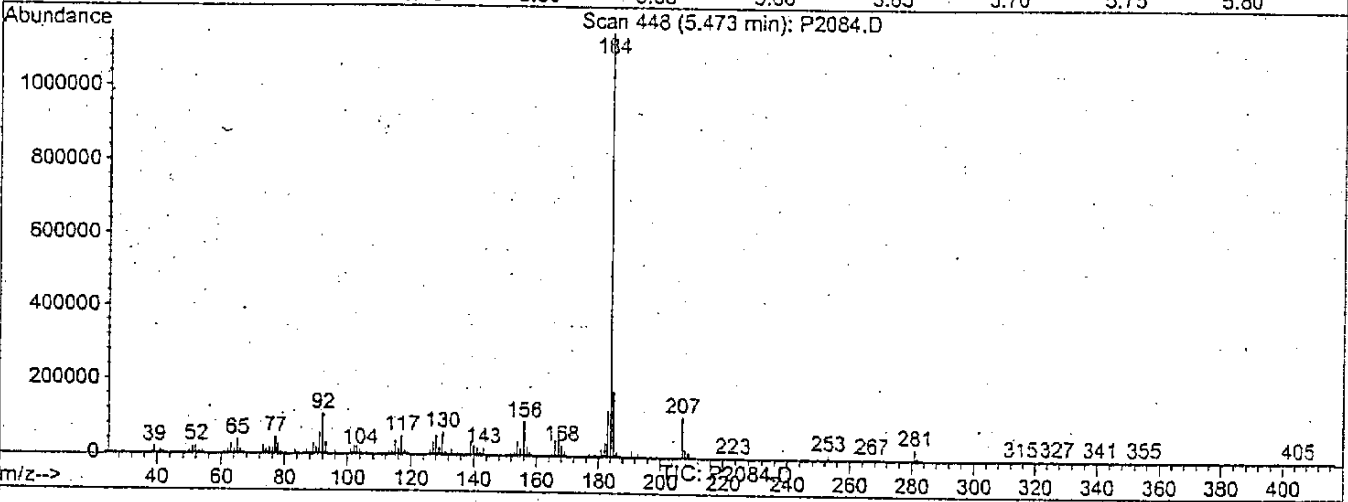
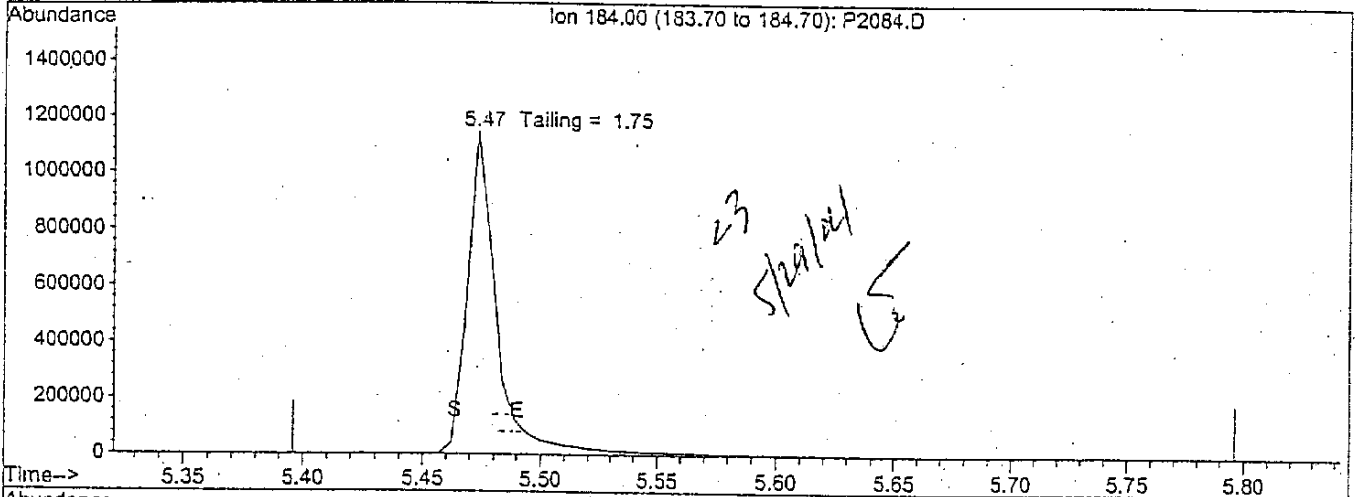
Ion	Exp%	Act%
266.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\052904.B\P2084.D  
 Acq On : 29 May 2004 8:12 am  
 Sample : DFTPP,BNA1512,P:041903,E:041905  
 Misc :  
 Quant Time: May 29 15:18 19104

Vial: 2  
 Operator: kidd  
 Inst : GC/MS Ins  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPPB.M (RTE Integrator)  
 Title :  
 Last Update : Wed May 12 11:21:34 2004  
 Response via : Single Level Calibration



(3) Benzidine

5.47min 51.21ug/ml

response 1007716

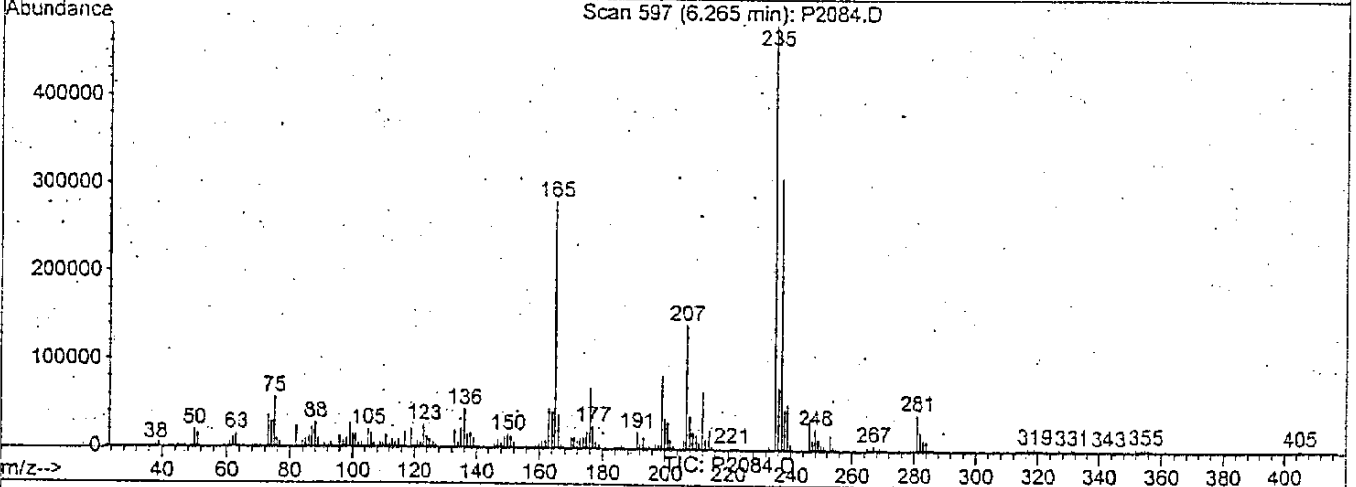
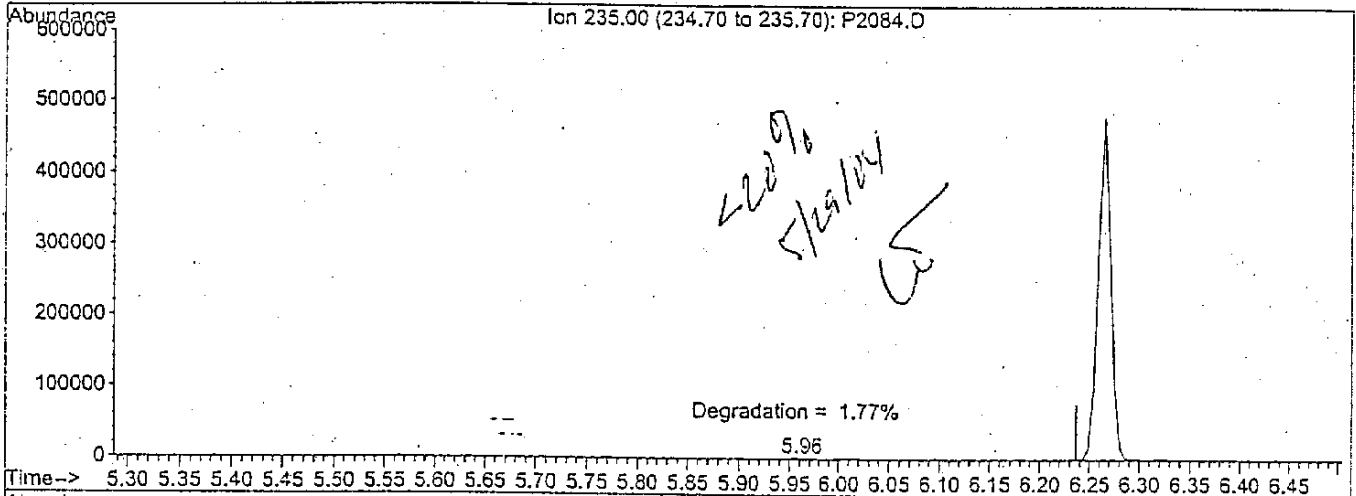
Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\052904.B\P2084.D  
 Acq On : 29 May 2004 8:12 am  
 Sample : DFTPP, BNA1512, P:041903, E:041905  
 Misc :  
 Quant Time: May 29 15:18 19104

Vial: 2  
 Operator: kidd  
 Inst : GC/MS Ins  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPPB.M (RTE Integrator)  
 Title :  
 Last Update : Wed May 12 11:21:34 2004  
 Response via : Single Level Calibration



(4) DDT

6.26min 41.31ug/ml

response 428614

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Calibration History

Method : /chem/P.i/052904.b/8270C.m  
 Start Cal Date: 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 5.00000		
29-MAY-2004 12:25	1-HSL	/chem/P.i/052904.b/p2094.d ✓
Cal Level: 2 , Cal Amount: 10.00000		
29-MAY-2004 16:23	4-CUST	/chem/P.i/052904.b/p2103.d
29-MAY-2004 12:51	1-HSL	/chem/P.i/052904.b/p2095.d ✓
29-MAY-2004 08:53	2-AP9std	/chem/P.i/052904.b/p2086.d
Cal Level: 3 , Cal Amount: 20.00000		
29-MAY-2004 16:49	4-CUST	/chem/P.i/052904.b/p2104.d
29-MAY-2004 13:18	1-HSL	/chem/P.i/052904.b/p2096.d ✓
29-MAY-2004 09:20	2-AP9std	/chem/P.i/052904.b/p2087.d
Cal Level: 4 , Cal Amount: 50.00000		
29-MAY-2004 17:15	4-CUST	/chem/P.i/052904.b/p2105.d
29-MAY-2004 13:44	1-HSL	/chem/P.i/052904.b/p2097.d ✓
29-MAY-2004 09:46	2-AP9std	/chem/P.i/052904.b/p2088.d
Cal Level: 5 , Cal Amount: 80.00000		
29-MAY-2004 15:56	4-CUST	/chem/P.i/052904.b/p2102.d
29-MAY-2004 11:58	1-HSL	/chem/P.i/052904.b/p2093.d ✓
29-MAY-2004 08:27	2-AP9std	/chem/P.i/052904.b/p2085.d
Cal Level: 6 , Cal Amount: 120.00000		
29-MAY-2004 17:41	4-CUST	/chem/P.i/052904.b/p2106.d
29-MAY-2004 14:11	1-HSL	/chem/P.i/052904.b/p2098.d ✓
29-MAY-2004 10:12	2-AP9std	/chem/P.i/052904.b/p2089.d
Cal Level: 7 , Cal Amount: 160.00000		
29-MAY-2004 18:07	4-CUST	/chem/P.i/052904.b/p2107.d
29-MAY-2004 14:37	1-HSL	/chem/P.i/052904.b/p2099.d ✓
29-MAY-2004 10:39	2-AP9std	/chem/P.i/052904.b/p2090.d



```

+-----+
| Cal Level: 8 , Cal Amount: 200.00000
+-----+
| 29-MAY-2004 18:33 | 4-CUST | /chem/P.i/052904.b/p2108.d
| 29-MAY-2004 15:04 | 1-HSL | /chem/P.i/052904.b/p2100.d ✓
| 29-MAY-2004 11:05 | 2-AP9std | /chem/P.i/052904.b/p2091.d
+-----+

```

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 5

```

+-----+
| Ccal Level: 5 , Ccal Amount: 80.0000
+-----+
| 29-MAY-2004 15:56 | 4-CUST | /chem/P.i/052904.b/p2102.d
+-----+
| Ccal Level: 5 , Ccal Amount: 80.0000
+-----+
| 29-MAY-2004 08:27 | 2-AP9std | /chem/P.i/052904.b/p2085.d
+-----+
| Ccal Level: 5 , Ccal Amount: 80.0000
+-----+
| 29-MAY-2004 11:58 | 1-HSL | /chem/P.i/052904.b/p2093.d
+-----+

```

6.3.04  
B/S

## MANUAL INTEGRATION SUMMARY REPORT

Sample Name	Data File	Lot No.	Compound	Code
HSL_0080	052904.b/p2093.d	P:043004	No Manual Integrations	
HSL_0005	052904.b/p2094.d	P:043004	No Manual Integrations	
HSL_0010	052904.b/p2095.d	P:043004	No Manual Integrations	
HSL_0020	052904.b/p2096.d	P:043004	No Manual Integrations	
HSL_0050	052904.b/p2097.d	P:043004	No Manual Integrations	
HSL_0120	052904.b/p2098.d	P:043004	Aniline	MSIN
HSL_0120	052904.b/p2098.d	P:043004	Bis(2-chloroethyl) ether	MSIN
HSL_0160	052904.b/p2099.d	P:043004	Aniline	MSIN
HSL_0160	052904.b/p2099.d	P:043004	Bis(2-chloroethyl) ether	MSIN
HSL_0200	052904.b/p2100.d	P:043004	Aniline	MSIN
HSL_0200	052904.b/p2100.d	P:043004	Bis(2-chloroethyl) ether	MSIN
HSL_0100 SSV	052904.b/p2101.d	P:043004	No Manual Integrations	
HSL_01002ndSrc	052904.b/p2110.d	P:050604	No Manual Integrations	
HSL_0100SSV	060304.b/p2113.d	P:050604	No Manual Integrations	

## Legend

BAS - Baseline Event

SP - Split Peak

TAIL - Peak Tailing or Fronting

NOID - Analyte not Identified by the Data System

MSID - Analyte Misidentified by the Data System

MSIN - Target Peak Misintegrated (Extraneous Area Removed)

mxw  
06-03-04

✓  
6.3.04 B/B

STL-Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 08:33 kidd

Calibration File Names:

Level 1: /chem/P.i/052904.b/p2094.d  
 Level 2: /chem/P.i/052904.b/p2103.d  
 Level 3: /chem/P.i/052904.b/p2104.d  
 Level 4: /chem/P.i/052904.b/p2105.d  
 Level 5: /chem/P.i/052904.b/p2102.d  
 Level 6: /chem/P.i/052904.b/p2106.d  
 Level 7: /chem/P.i/052904.b/p2107.d  
 Level 8: /chem/P.i/052904.b/p2108.d

Compound	5	10	20	50	80	120	Curve	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
5 Pyridine	++++ 0.97574	++++ 0.95824	1.02875	1.09444	1.02898	0.98614	AVRG		1.01205		4.88846
4 N-Nitrosodimethylamine	++++ 0.71153	0.62080 0.71220	0.71634	0.70308	0.71162	0.70132	AVRG		0.69670		4.86443
16 Aniline	++++ 1045393	136725 1160954	304017	517440	769756	970782	QUAD	0.19043	0.05325	0.35391	0.99829
15 Phenol	++++ 1.47415	1.45824 1.45773	1.54813	1.52103	1.45295	1.46592	AVRG		1.48259		2.49526
18 Bis(2-chloroethyl) ether	++++ 1.50408	1.54593 1.49298	1.46721	1.46616	1.45187	1.61141	AVRG		1.50566		3.72764

## STL-Denver

## INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 08:33 kidd

Compound	5	10	20	50	80	120	Curve	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
20 2-Chlorophenol	++++ 1.23368	1.28770 1.23107	1.31045	1.26640	1.22798	1.21878	AVRG		1.25372		2.78825
21 1,3-Dichlorobenzene	++++ 1.34328	1.44702 1.34710	1.45494	1.37506	1.31879	1.32058	AVRG		1.37240		4.14692
23 1,4-Dichlorobenzene	++++ 1.36270	1.51816 1.36720	1.49465	1.40784	1.34008	1.35447	AVRG		1.40644		5.09594
24 Benzyl alcohol	++++ 0.74655	0.59311 0.76686	0.70844	0.73540	0.73844	0.75222	AVRG		0.72015		8.16601
25 1,2-Dichlorobenzene	++++ 1.26276	1.38549 1.26491	1.37119	1.30653	1.27478	1.25260	AVRG		1.30261		4.18976
26 2-Methylphenol	++++ 1.07390	1.15043 1.06861	1.10681	1.12999	1.09217	1.08018	AVRG		1.10030		2.77881
27 1H-Indene	++++ 2.05065	2.24457 2.05362	2.23324	2.13745	2.06848	2.04573	AVRG		2.11910		4.13306
28 2,2'-oxybis(1-chloropropane)	++++ 1.03109	1.16265 1.04254	1.12972	1.08293	1.04702	1.03360	AVRG		1.07565		4.83314
29 4-Methylphenol	++++ 1.13586	1.06817 1.11774	1.19271	1.14295	1.11371	1.13121	AVRG		1.12891		3.30781

STL-Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 08:33 kidd

Compound	5	10	20	50	80	120	Curve	Coefficients			RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
30 N-nitrosodi-n-propylamine	++++ 0.80216	0.75251 0.81128	0.85001	0.82654	0.80010	0.80699	AVRG		0.80709		3.67905
32 Acetophenone	++++ 1.60183	1.65654 1.60529	1.74204	1.69716	1.62248	1.62634	AVRG		1.65024		3.16563
33 Hexachloroethane	0.55105 0.57103	0.55092 0.56767	0.57600	0.55498	0.55429	0.55724	AVRG		0.56040		1.73716
37 Nitrobenzene	++++ 1.22372	1.17724 1.23136	1.29802	1.28498	1.21460	1.21587	AVRG		1.23511		3.42370
40 Isophorone	++++ 0.57092	0.50213 0.56492	0.56798	0.56467	0.57576	0.57257	AVRG		0.55985		4.60276
41 2-Nitrophenol	++++ 0.16847	0.12520 0.17010	0.14747	0.15713	0.16245	0.16185	AVRG		0.15609		9.96808
42 2,4-Dimethylphenol	++++ 0.32352	0.32624 0.32063	0.32920	0.32047	0.31471	0.31855	AVRG		0.32190		1.50756
43 Bis(2-chloroethoxy)methane	++++ 0.34064	0.35496 0.33984	0.37040	0.35350	0.34497	0.34388	AVRG		0.34974		3.10191
45 Benzoic acid	++++ 0.16853	++++ 0.17231	++++	0.12045	0.14391	0.15832	AVRG		0.15271		13.82919

STL-Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 08:33 kidd

Compound	5	10	20	50	80	120	Curve	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
46 2,4-Dichlorophenol	++++ 0.26226	0.23953 0.26296	0.25654	0.25639	0.26475	0.25993	AVRG		0.25748		3.31020
47 1,2,4-Trichlorobenzene	++++ 0.29502	0.31885 0.29280	0.32089	0.30188	0.29345	0.29127	AVRG		0.30202		4.19277
50 Naphthalene	++++ 0.93213	1.05581 0.92229	1.07202	0.99951	0.96568	0.93850	AVRG		0.98371		6.16241
51 4-Chloroaniline	++++ 0.33293	0.35077 0.32093	0.37605	0.36364	0.34166	0.33906	AVRG		0.34643		5.40267
52 Hexachlorobutadiene	++++ 0.17245	0.18109 0.17267	0.17956	0.17156	0.17170	0.17017	AVRG		0.17417		2.46961
59 4-Chloro-3-methylphenol	++++ 0.27401	0.22088 0.27081	0.26665	0.27581	0.26861	0.27415	AVRG		0.26442		7.36528
62 2-Methylnaphthalene	++++ 0.56578	0.62930 0.55780	0.64243	0.59130	0.57440	0.56695	AVRG		0.58971		5.66326
64 1-Methylnaphthalene	++++ 0.57114	0.62692 0.56149	0.64318	0.60242	0.57844	0.56942	AVRG		0.59329		5.32816
63 Hexachlorocyclopentadiene	++++ 0.39152	0.26811 0.39088	0.32137	0.34887	0.35805	0.38281	AVRG		0.35166		12.74045

STL-Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 08:33 kidd

Compound	5	10	20	50	80	120	Curve	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
67 2,4,6-Trichlorophenol	++++ 0.33522	0.26748 0.33869	0.30499	0.30892	0.31779	0.32725	AVRG		0.31433		7.70630
68 2,4,5-Trichlorophenol	++++ 0.34905	0.27360 0.35392	0.32364	0.32943	0.34241	0.34408	AVRG		0.33088		8.28061
71 2-Chloronaphthalene	++++ 1.03844	1.10032 1.04544	1.12197	1.06771	1.04382	1.04248	AVRG		1.06574		3.09787
74 2-Nitroaniline	++++ 722425	27309 885432	86270	193551	360956	579606	WLINR	0.11624	0.29354		0.99909 ✓
76 Dimethyl phthalate	++++ 1.10692	1.07242 1.09566	1.14348	1.12210	1.11805	1.09102	AVRG		1.10709		2.10573
79 2,6-Dinitrotoluene	++++ 595672	24077 723006	73783	156940	296574	471931	WLINR	0.10410	0.23929		0.99870 ✓
81 Acenaphthylene	++++ 1.67804	1.67499 1.65237	1.81755	1.75202	1.71721	1.68882	AVRG		1.71157		3.32084
82 3-Nitroaniline	++++ 673955	23713 809731	77226	173056	327776	522436	WLINR	0.12397	0.26854		0.99831 ✓
84 Acenaphthene	++++ 1.05660	1.15788 1.04535	1.16484	1.09042	1.05729	1.04412	AVRG		1.08807		4.81470

STL-Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 08:33 kidd

Compound	5	10	20	50	80	120	Curve	Coefficients			RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
85 2,4-Dinitrophenol	++++ 336716	++++ 447396	22162	65196	139631	246846	QUAD	0.31413	8.51506	-3.01354	0.99934
86 4-Nitrophenol	++++ 478469	++++ 601247	39671	105140	215082	361279	WLINR	0.26442	0.19817		0.99341
87 2,4-Dinitrotoluene	++++ 785663	29896 963166	102067	219080	399464	624269	WLINR	0.11065	0.32269		0.99942
88 Dibenzofuran	++++ 1.42243	1.58495 1.40872	1.61061	1.51512	1.46504	1.43474	AVRG		1.49166		5.40659
93 Diethyl phthalate	++++ 1.14607	1.07166 1.13084	1.18951	1.15102	1.15562	1.11658	AVRG		1.13733		3.23178
95 4-Chlorophenyl phenyl ether	++++ 0.60502	0.63520 0.59226	0.64879	0.60686	0.59935	0.58641	AVRG		0.61056		3.75674
96 Fluorene	++++ 1.12144	1.19910 1.10115	1.22126	1.18170	1.14068	1.10931	AVRG		1.15352		4.08940
97 4-Nitroaniline	++++ 639963	20095 818768	68684	159490	318514	510300	WLINR	0.14524	0.26233		0.99608
99 4,6-Dinitro-2-methylphenol	++++ 518376	++++ 637639	47831	119764	233551	383406	WLINR	0.22639	0.21035		0.99456



## STL-Denver

## INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 08:33 kidd

Compound	5	10	20	50	80	120	Curve	Coefficients			RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160	200									
	Level 7	Level 8									
101 N-nitrosodiphenylamine	++++ 0.80027	0.76844 0.79427	0.82913	0.80018	0.79288	0.77097	AVRG		0.79373		2.56956
102 Azobenzene	++++ 1.12148	1.07062 1.09979	1.18433	1.15160	1.13452	1.10117	AVRG		1.12336		3.34492
108 4-Bromophenyl phenyl ether	++++ 0.16252	0.16426 0.16064	0.17629	0.16877	0.16337	0.16358	AVRG		0.16563		3.20765
110 Hexachlorobenzene	++++ 0.16035	0.16904 0.15835	0.17638	0.16166	0.16131	0.15934	AVRG		0.16377		4.00410
113 Pentachlorophenol	++++ 442094	++++ 566386	38740	96565	202575	324144	WLINR	0.24180	0.10265		0.99242
118 Phenanthrene	++++ 0.88287	0.97504 0.85081	0.99491	0.92885	0.90066	0.87861	AVRG		0.91596		5.78698
122 Anthracene	++++ 0.87460	0.89113 0.85722	0.96559	0.91015	0.88755	0.85709	AVRG		0.89191		4.21926
123 Carbazole	++++ 0.84371	0.83229 0.84741	0.88226	0.86485	0.84318	0.82923	AVRG		0.84899		2.19940
125 Di-n-butyl phthalate	++++ 0.99879	0.78838 0.98335	0.97712	1.01055	1.01283	0.99405	AVRG		0.96644		8.23591

STL-Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
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 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 08:33 kidd

Compound	5	10	20	50	80	120	Curve	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
130 Fluoranthene	++++ 1.02246	1.04388 1.01461	1.07366	1.04505	1.01384	1.00605	AVRG		1.03137		2.32187
131 Benzidine	++++ 0.10658	++++ 0.08708	0.11284	0.09192	0.13369	0.09190	AVRG		0.10400		16.90145
132 Pyrene	++++ 0.88730	1.10869 0.86608	1.08393	1.04964	0.97081	0.99003	AVRG		0.99378		9.42500
137 Butyl benzyl phthalate	++++ 0.42554	0.30782 0.43208	0.38088	0.41010	0.42859	0.43474	AVRG		0.40282		11.38254
140 3 3'-Dichlorobenzidine	++++ 0.34207	0.24858 0.33826	0.29083	0.31647	0.33617	0.32803	AVRG		0.31434		10.77835
141 Benzo(a)anthracene	++++ 0.91191	0.96359 0.88974	0.99596	0.97400	0.93360	0.92871	AVRG		0.94250		3.94268
144 Chrysene	++++ 0.86745	1.00717 0.85421	0.99653	0.94704	0.88932	0.88487	AVRG		0.92094		6.78761
143 Bis(2-ethylhexyl) phthalate	56054 3327482	124004 4056065	364276	815682	1555254	2333236	WLINR	0.05954	0.62105		0.99877
146 Di-n-octyl phthalate	++++ 6203173	196237 7443654	620660	1443318	2869455	4201873	WLINR	0.10359	1.16364		0.99941

*narrate*

STL-Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 08:33 kidd

Compound	5	10	20	50	80	120	Curve	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
147 Benzo(b)fluoranthene	++++ 1.08254	1.04116 1.10564	1.15241	1.08085	0.97526	1.06749	AVRG		1.07219		5.12485
148 Benzo(k)fluoranthene	++++ 1.14225	1.16984 1.13953	1.12403	1.10310	1.12246	1.12017	AVRG		1.13162		1.88217
150 Benzo(a)pyrene	++++ 0.98138	0.90971 0.98145	0.97390	0.98452	0.96214	0.96407	AVRG		0.96531		2.69623
155 Indeno(1,2,3-cd)pyrene	++++ 1.02408	1.11529 0.96514	1.15287	1.25739	1.19608	1.12884	AVRG		1.11995		8.85613
156 Dibenz(a,h)anthracene	++++ 0.87921	0.94591 0.83165	0.98816	1.06530	1.01626	0.95294	AVRG		0.95421		8.34655
157 Benzo(g,h,i)perylene	++++ 0.84224	0.99402 0.79582	1.01164	1.12848	1.06216	0.96219	AVRG		0.97094		12.08687
168 Methyl Styrene	++++ 1.33846	1.37951 1.31654	1.41803	1.35913	1.31164	1.30756	AVRG		1.34727		3.03852
202 Alachlor	++++ 0.12861	0.08091 0.12811	0.10232	0.11755	0.12104	0.11993	AVRG		0.11407		14.93394
204 Atrazine	++++ 0.00345	++++ 0.00239	0.02198	0.02035	0.01219	0.00551	AVRG		0.01098		78.42141

*harrafte*

STL-Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 08:33 kidd

Compound	5	10	20	50	80	120	Curve	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
205 Caprolactam	++++ 407174	11452 505946	43705	103515	203768	324997	WLINR	0.14729	0.08796		0.99886
207 2,3-Dichlorobenzeneamine	++++ 0.55507	0.54752 0.55742	0.57922	0.55404	0.55249	0.54850	AVRG		0.55632		1.92181
206 Decane	++++ 0.88504	0.96952 0.87869	0.95152	0.91309	0.87393	0.87310	AVRG		0.90641		4.37893
213 n-Dodecane	++++ 0.44039	0.44874 0.44733	0.45165	0.43998	0.43588	0.43806	AVRG		0.44315		1.35829
210 Tetradecane	++++ 0.42108	0.42979 0.42135	0.44360	0.42730	0.41819	0.42323	AVRG		0.42636		2.00689
209 Hexadecane	++++ 0.57411	0.59405 0.57436	0.60881	0.58501	0.57367	0.57253	AVRG		0.58322		2.36584
208 n-Octadecane	++++ 0.18559	0.19627 0.18418	0.19864	0.18959	0.18508	0.18610	AVRG		0.18935		3.07853
211 n-Eicosane	++++ 0.37840	0.36206 0.37671	0.38358	0.38585	0.38030	0.36522	AVRG		0.37602		2.40259
212 n-Docosane	++++ 0.30134	0.26001 0.30124	0.29495	0.29691	0.29420	0.28989	AVRG		0.29122		4.92380

STL-Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 08:33 kidd

Compound	5	10	20	50	80	120	Curve	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
\$ 36 Nitrobenzene-d5	++++ 1.25163	1.10967 1.27125	1.23646	1.24309	1.23821	1.25015	AVRG		1.22864		4.37340
\$ 70 2-Fluorobiphenyl	++++ 1.23657	1.34264 1.22446	1.34651	1.29455	1.22563	1.24060	AVRG		1.27299		4.26601
\$ 133 Terphenyl-d14	++++ 0.52572	0.62835 0.53091	0.62610	0.61187	0.56790	0.56567	AVRG		0.57950		7.45019
\$ 10 2-Fluorophenol	++++ 1.19480	1.12329 1.18519	1.17596	1.18506	1.17653	1.16731	AVRG		1.17259		1.99763
\$ 14 Phenol-d5	++++ 1.35935	1.42139 1.36519	1.47278	1.42057	1.39270	1.38523	AVRG		1.40246		2.80280
\$ 103 2,4,6-Tribromophenol	++++ 0.06345	0.04507 0.06382	0.05345	0.05853	0.06200	0.06261	AVRG		0.05842		11.85278
\$ 163 1,2-Dichlorobenzene-d4	++++ 0.82115	0.91157 0.83004	0.90488	0.85154	0.81786	0.81933	AVRG		0.85091		4.79870
\$ 162 2-Chlorophenol-d4	++++ 1.17245	1.24056 1.18677	1.24325	1.20960	1.17096	1.18992	AVRG		1.20193		2.50994

STL-Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 08:33 kidd

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

INITIAL CALIBRATION REPORT

Instrument ID: P.i  
Lab File ID: p2100.d  
Analysis Type: WATER

Injection Date: 29-MAY-2004 15:04  
Lab Sample ID: HSL 0200  
Method File: /chem/P.i/052904.b/8270C.m

COMPOUND	%RSD
N-Nitrosodimethylamine	4.9
Pyridine	4.9
2-Fluorophenol	2.0
Phenol-d5	2.8
Phenol	2.5
Aniline	32.1
Methyl Styrene	3.0
Bis(2-chloroethyl) ether	3.7
Decane	4.4
2-Chlorophenol-d4	2.5
2-Chlorophenol	2.8
1,3-Dichlorobenzene	4.1
1,4-Dichlorobenzene	5.1
Benzyl alcohol	8.2
1,2-Dichlorobenzene-d4	4.8
1,2-Dichlorobenzene	4.2
2-Methylphenol	2.8
2,2'-oxybis(1-chloropropane)	4.8
1H-Indene	4.1
4-Methylphenol	3.3
N-nitrosodi-n-propylamine	3.7
Acetophenone	3.2
Hexachloroethane	1.7
Nitrobenzene-d5	4.4
Nitrobenzene	3.4
Isophorone	4.6
2,4-Dimethylphenol	1.5
2-Nitrophenol	10.0
Bis(2-chloroethoxy)methane	3.1
Benzoic acid	13.8
2,4-Dichlorophenol	3.3
n-Dodecane	1.4
1,2,4-Trichlorobenzene	4.2
Naphthalene	6.2
4-Chloroaniline	5.4
Hexachlorobutadiene	2.5
Caprolactam	25.0
4-Chloro-3-methylphenol	7.4
2-Methylnaphthalene	5.7

— Quad

— WL 1/2

INITIAL CALIBRATION REPORT

Instrument ID: P.i  
 Lab File ID: p2100.d  
 Analysis Type: WATER

Injection Date: 29-MAY-2004 15:04  
 Lab Sample ID: HSL 0200  
 Method File: /chem/P.i/052904.b/8270C.m

COMPOUND	%RSD
1-Methylnaphthalene	5.3
Hexachlorocyclopentadiene	12.7
2,4,6-Trichlorophenol	7.7
2,3-Dichlorobenzeneamine	1.9
2,4,5-Trichlorophenol	8.3
Tetradecane	2.0
2-Fluorobiphenyl	4.3
2-Chloronaphthalene	3.1
2-Nitroaniline	19.0
Dimethyl phthalate	2.1
2,6-Dinitrotoluene	16.8
Acenaphthylene	3.3
3-Nitroaniline	20.5
Acenaphthene	4.8
2,4-Dinitrophenol	31.1
4-Nitrophenol	22.8
Dibenzofuran	5.4
2,4-Dinitrotoluene	17.9
Hexadecane	2.4
Diethyl phthalate	3.2
4-Chlorophenyl phenyl ether	3.8
Fluorene	4.1
4-Nitroaniline	25.0
4,6-Dinitro-2-methylphenol	19.1
N-nitrosodiphenylamine	2.6
Azobenzene	3.3
2,4,6-Tribromophenol	11.9
4-Bromophenyl phenyl ether	3.2
Atrazine	78.4
Hexachlorobenzene	4.0
n-Octadecane	3.1
Pentachlorophenol	20.8
Phenanthrene	5.8
Anthracene	4.2
Carbazole	2.2
Alachlor	14.9
Di-n-butyl phthalate	8.2
n-Eicosane	2.4
Fluoranthene	2.3

- WL  $\frac{1}{x^2}$   
 - WL  $\frac{1}{x^2}$   
 - WL  $\frac{1}{x^2}$   
 - Quad  
 - WL  $\frac{1}{x^2}$   
 - WL  $\frac{1}{x^2}$   
 - WL  $\frac{1}{x^2}$   
 - WL  $\frac{1}{x^2}$   
 - narrate  
 - WL  $\frac{1}{x^2}$



INITIAL CALIBRATION REPORT

Instrument ID: P.i  
Lab File ID: p2100.d  
Analysis Type: WATER

Injection Date: 29-MAY-2004 15:04  
Lab Sample ID: HSL\_0200  
Method File: /chem/P.i/052904.b/8270C.m

COMPOUND	%RSD
n-docosane	4.9
Benzidine	16.9
Pyrene	9.4
Terphenyl-d14	7.5
Butyl benzyl phthalate	11.4
Bis(2-ethylhexyl) phthalate	18.8
3,3'-Dichlorobenzidine	10.8
Benzo(a)anthracene	3.9
Chrysene	6.8
Di-n-octyl phthalate	16.6
Benzo(b)fluoranthene	5.1
Benzo(k)fluoranthene	1.9
Benzo(a)pyrene	2.7
Dibenz(a,h)anthracene	8.3
Indeno(1,2,3-cd)pyrene	8.9
Benzo(g,h,i)perylene	12.1

*harrate*  
*WL 1/x<sup>2</sup>*  
*WL 1/x<sup>2</sup>*

✓  
The average of all %RSD's in the initial calibration is 8.3

## STL-Denver

## INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 09:05 kidd  
 Curve Type : Average

## Calibration File Names:

Level 1: /chem/P.i/052904.b/p2094.d  
 Level 2: /chem/P.i/052904.b/p2103.d  
 Level 3: /chem/P.i/052904.b/p2104.d  
 Level 4: /chem/P.i/052904.b/p2105.d  
 Level 5: /chem/P.i/052904.b/p2102.d  
 Level 6: /chem/P.i/052904.b/p2106.d  
 Level 7: /chem/P.i/052904.b/p2107.d  
 Level 8: /chem/P.i/052904.b/p2108.d

Compound	5.000	10.000	20.000	50.000	80.000	120.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	160.000	200.000						
	Level 7	Level 8						
5 Pyridine	++++ 0.97574	++++ 0.95824	1.02875	1.09444	1.02898	0.98614	1.01205	4.888
4 N-Nitrosodimethylamine	++++ 0.71153	0.62080 0.71220	0.71634	0.70308	0.71162	0.70132	0.69670	4.864
16 Aniline	++++ 0.79492	1.65446 0.72644	1.56446	1.33392	1.13010	0.89856	1.15755	32.107
15 Phenol	++++ 1.47415	1.45824 1.45773	1.54813	1.52103	1.45295	1.46592	1.48259	2.495
18 Bis(2-chloroethyl) ether	++++ 1.50408	1.54593 1.49298	1.46721	1.46616	1.45187	1.61141	1.50566	3.728
20 2-Chlorophenol	++++ 1.23368	1.28770 1.23107	1.31045	1.26640	1.22798	1.21878	1.25372	2.788
21 1,3-Dichlorobenzene	++++ 1.34328	1.44702 1.34710	1.45494	1.37506	1.31879	1.32058	1.37240	4.147

## STL-Denver

## INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 09:05 kidd  
 Curve Type : Average

Compound	5.000	10.000	20.000	50.000	80.000	120.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	150.000	200.000						
	Level 7	Level 8						
23 1,4-Dichlorobenzene	++++ 1.36270	1.51816 1.36720	1.49465	1.40784	1.34008	1.35447	1.40644	5.096
24 Benzyl alcohol	++++ 0.74655	0.59311 0.76686	0.70844	0.73540	0.73844	0.75222	0.72015	8.166
25 1,2-Dichlorobenzene	++++ 1.26276	1.38549 1.26491	1.37119	1.30653	1.27478	1.25260	1.30261	4.190
26 2-Methylphenol	++++ 1.07390	1.15043 1.06861	1.10681	1.12999	1.09217	1.08018	1.10030	2.779
27 1H-Indene	++++ 2.05065	2.24457 2.05362	2.23324	2.13745	2.06848	2.04573	2.11910	4.133
28 2,2'-oxybis(1-chloropropane)	++++ 1.03109	1.16265 1.04254	1.12972	1.08293	1.04702	1.03360	1.07565	4.833
29 4-Methylphenol	++++ 1.13586	1.06817 1.11774	1.19271	1.14295	1.11371	1.13121	1.12891	3.308
30 N-nitrosodi-n-propylamine	++++ 0.80216	0.75251 0.81128	0.85001	0.82654	0.80010	0.80699	0.80709	3.679
32 Acetophenone	++++ 1.60183	1.65654 1.60529	1.74204	1.69716	1.62248	1.62634	1.65024	3.166
33 Hexachloroethane	0.55105 0.57103	0.55092 0.56767	0.57600	0.55498	0.55429	0.55724	0.56040	1.737

## STL-Denver

## INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33  
 Quant Method : ISTD  
 Origin : Disabled  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 09:05 kidd  
 Curve Type : Average

Compound	5.000	10.000	20.000	50.000	80.000	120.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	160.000	200.000						
	Level 7	Level 8						
37 Nitrobenzene	+++++	1.17724	1.29802	1.28498	1.21460	1.21587	1.23511	3.424
	1.22372	1.23136						
40 Isophorone	+++++	0.50213	0.56798	0.56467	0.57576	0.57257	0.55985	4.603
	0.57092	0.56492						
41 2-Nitrophenol	+++++	0.12520	0.14747	0.15713	0.16245	0.16185	0.15609	9.968
	0.16847	0.17010						
42 2,4-Dimethylphenol	+++++	0.32624	0.32920	0.32047	0.31471	0.31855	0.32190	1.508
	0.32352	0.32063						
43 Bis(2-chloroethoxy)methane	+++++	0.35496	0.37040	0.35350	0.34497	0.34388	0.34974	3.102
	0.34064	0.33984						
45 Benzoic acid	+++++	+++++	+++++	0.12045	0.14391	0.15832	0.15271	13.829
	0.16853	0.17231						
46 2,4-Dichlorophenol	+++++	0.23953	0.25654	0.25639	0.26475	0.25993	0.25748	3.310
	0.26226	0.26296						
47 1,2,4-Trichlorobenzene	+++++	0.31885	0.32089	0.30188	0.29345	0.29127	0.30202	4.193
	0.29502	0.29280						
50 Naphthalene	+++++	1.05581	1.07202	0.99951	0.96568	0.93850	0.98371	6.162
	0.93213	0.92229						
51 4-Chloroaniline	+++++	0.35077	0.37605	0.36364	0.34166	0.33906	0.34643	5.403
	0.33293	0.32093						

STL-Denver

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 Cal Date : 03-Jun-2004 09:05 kidd  
 Curve Type : Average

Compound	5.000	10.000	20.000	50.000	80.000	120.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	160.000	200.000						
	Level 7	Level 8						
52 Hexachlorobutadiene	++++ 0.17245	0.18109 0.17267	0.17956	0.17156	0.17170	0.17017	0.17417	2.470
59 4-Chloro-3-methylphenol	++++ 0.27401	0.22088 0.27081	0.26665	0.27581	0.26861	0.27415	0.26442	7.365
62 2-Methylnaphthalene	++++ 0.56578	0.62930 0.55780	0.64243	0.59130	0.57440	0.56695	0.58971	5.663
64 1-Methylnaphthalene	++++ 0.57114	0.62692 0.56149	0.64318	0.60242	0.57844	0.56942	0.59329	5.328
63 Hexachlorocyclopentadiene	++++ 0.39152	0.26811 0.39088	0.32137	0.34887	0.35805	0.38281	0.35166	12.740
67 2,4,6-Trichlorophenol	++++ 0.33522	0.26748 0.33869	0.30499	0.30892	0.31779	0.32725	0.31433	7.706
68 2,4,5-Trichlorophenol	++++ 0.34905	0.27360 0.35392	0.32364	0.32943	0.34241	0.34408	0.33088	8.281
71 2-Chloronaphthalene	++++ 1.03844	1.10032 1.04544	1.12197	1.06771	1.04382	1.04248	1.06574	3.098
74 2-Nitroaniline	++++ 0.29107	0.16139 0.29419	0.22067	0.25322	0.27506	0.28236	0.25399	18.966
76 Dimethyl phthalate	++++ 1.10692	1.07242 1.09566	1.14348	1.12210	1.11805	1.09102	1.10709	2.106

STL-Denver

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
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 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 09:05 kidd  
 Curve Type : Average

Compound	5.000	10.000	20.000	50.000	80.000	120.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	160.000	200.000						
	Level 7	Level 8						
79 2,6-Dinitrotoluene	+++++	0.14229	0.18873	0.20532	0.22600	0.22990		
	0.24000	0.24022					0.21035	16.834
81 Acenaphthylene	+++++	1.67499	1.81755	1.75202	1.71721	1.68882		
	1.67804	1.65237					1.71157	3.321
82 3-Nitroaniline	+++++	0.14014	0.19754	0.22640	0.24978	0.25451		
	0.27154	0.26904					0.22985	20.547
84 Acenaphthene	+++++	1.15788	1.16484	1.09042	1.05729	1.04412		
	1.05660	1.04535					1.08807	4.815
85 2,4-Dinitrophenol	+++++	+++++	0.05669	0.08529	0.10640	0.12025		
	0.13566	0.14865					0.10883	31.066
86 4-Nitrophenol	+++++	+++++	0.10148	0.13755	0.16390	0.17600		
	0.19278	0.19977					0.16191	22.834
87 2,4-Dinitrotoluene	+++++	0.17668	0.26108	0.28662	0.30441	0.30411		
	0.31655	0.32002					0.28135	17.876
88 Dibenzofuran	+++++	1.58495	1.61061	1.51512	1.46504	1.43474		
	1.42243	1.40872					1.49166	5.407
93 Diethyl phthalate	+++++	1.07166	1.18951	1.15102	1.15562	1.11658		
	1.14607	1.13084					1.13733	3.232
95 4-Chlorophenyl phenyl ether	+++++	0.63520	0.64879	0.60686	0.59935	0.58641		
	0.60502	0.59226					0.61056	3.757

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 Method file : /chem/P.i/052904.b/8270C.m  
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 Curve Type : Average

Compound	5.000	10.000	20.000	50.000	80.000	120.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	160.000	200.000						
	Level 7	Level 8						
96 Fluorene	++++ 1.12144	1.19910 1.10115	1.22126	1.18170	1.14068	1.10931	1.15352	4.089
97 4-Nitroaniline	++++ 0.25784	0.11876 0.27204	0.17569	0.20866	0.24272	0.24859	0.21776	24.999
99 4,6-Dinitro-2-methylphenol	++++ 0.20886	++++ 0.21186	0.12235	0.15668	0.17798	0.18678	0.17742	19.072
101 N-nitrosodiphenylamine	++++ 0.80027	0.76844 0.79427	0.82913	0.80018	0.79288	0.77097	0.79373	2.570
102 Azobenzene	++++ 1.12148	1.07062 1.09979	1.18433	1.15160	1.13452	1.10117	1.12336	3.345
108 4-Bromophenyl phenyl ether	++++ 0.16252	0.16426 0.16064	0.17629	0.16877	0.16337	0.16358	0.16563	3.208
110 Hexachlorobenzene	++++ 0.16035	0.16904 0.15835	0.17638	0.16166	0.16131	0.15934	0.16377	4.004
113 Pentachlorophenol	++++ 0.09975	++++ 0.10503	0.05746	0.07225	0.08703	0.09090	0.08540	20.801
118 Phenanthrene	++++ 0.88287	0.97504 0.85081	0.99491	0.92885	0.90066	0.87861	0.91596	5.787
122 Anthracene	++++ 0.87460	0.89113 0.85722	0.96559	0.91015	0.88755	0.85709	0.89191	4.219

STL-Denver

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 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 09:05 kidd  
 Curve Type : Average

Compound	5.000	10.000	20.000	50.000	80.000	120.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	160.000	200.000						
	Level 7	Level 8						
123 Carbazole	++++ 0.84371	0.83229 0.84741	0.88226	0.86485	0.84318	0.82923	0.84899	2.199
125 Di-n-butyl phthalate	++++ 0.99879	0.78838 0.98335	0.97712	1.01055	1.01283	0.99405	0.96644	8.236
130 Fluoranthene	++++ 1.02246	1.04398 1.01461	1.07366	1.04505	1.01384	1.00605	1.03137	2.322
131 Benzidine	++++ 0.10658	++++ 0.08708	0.11284	0.09192	0.13369	0.09190	0.10400	16.901
132 Pyrene	++++ 0.88730	1.10869 0.86608	1.08393	1.04964	0.97081	0.99003	0.99378	9.425
137 Butyl benzyl phthalate	++++ 0.42554	0.30782 0.43208	0.38088	0.41010	0.42859	0.43474	0.40282	11.383
140 3,3'-Dichlorobenzidine	++++ 0.34207	0.24858 0.33826	0.29083	0.31647	0.33617	0.32803	0.31434	10.778
141 Benzo(a)anthracene	++++ 0.91191	0.96359 0.88974	0.99596	0.97400	0.93360	0.92871	0.94250	3.943
144 Chrysene	++++ 0.86745	1.00717 0.85421	0.99653	0.94704	0.88932	0.88487	0.92094	6.788
143 Bis(2-ethylhexyl) phthalate	0.34604 0.62090	0.43954 0.61388	0.52544	0.59099	0.61409	0.61901	0.54624	18.816



STL-Denver

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 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 09:05 kidd  
 Curve Type : Average

Compound	5.000	10.000	20.000	50.000	80.000	120.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	160.000	200.000						
	Level 7	Level 8						
146 Di-n-octyl phthalate	++++ 1.15749	0.69557 1.12659	0.89525	1.04574	1.13301	1.11476	1.02406	16.600
147 Benzo(b)fluoranthene	++++ 1.08254	1.04116 1.10564	1.15241	1.08085	0.97526	1.06749	1.07219	5.125
148 Benzo(k)fluoranthene	++++ 1.14225	1.16984 1.13953	1.12403	1.10310	1.12246	1.12017	1.13162	1.882
150 Benzo(a)pyrene	++++ 0.98138	0.90971 0.98145	0.97390	0.98452	0.96214	0.96407	0.96531	2.696
155 Indeno(1,2,3-cd)pyrene	++++ 1.02408	1.11529 0.96514	1.15287	1.25739	1.19608	1.12884	1.11995	8.856
156 Dibenz(a,h)anthracene	++++ 0.87921	0.94591 0.83165	0.98816	1.06530	1.01626	0.95294	0.95421	8.347
157 Benzo(g,h,i)perylene	++++ 0.84224	0.99402 0.79582	1.01164	1.12848	1.06216	0.96219	0.97094	12.087
168 Methyl Styrene	++++ 1.33846	1.37951 1.31654	1.41803	1.35913	1.31164	1.30756	1.34727	3.039
202 Alachlor	++++ 0.12861	0.08091 0.12811	0.10232	0.11755	0.12104	0.11993	0.11407	14.934
204 Atrazine	++++ 0.00345	++++ 0.00239	0.02198	0.02035	0.01219	0.00551	0.01098	78.421 <-

STL-Denver

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 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 09:05 kidd  
 Curve Type : Average

Compound	5.000	10.000	20.000	50.000	80.000	120.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	160.000	200.000						
	Level 7	Level 8						
205 Caprolactam	+++++	0.03723	0.06116	0.07266	0.08306	0.08314		
	0.08610	0.08724					0.07294	25.019
207 2,3-Dichlorobenzeneamine	+++++	0.54752	0.57922	0.55404	0.55249	0.54850		
	0.55507	0.55742					0.55632	1.922
206 Decane	+++++	0.96952	0.95152	0.91309	0.87393	0.87310		
	0.88504	0.87869					0.90641	4.379
213 n-Dodecane	+++++	0.44874	0.45165	0.43998	0.43588	0.43806		
	0.44039	0.44733					0.44315	1.358
210 Tetradecane	+++++	0.42979	0.44360	0.42730	0.41819	0.42323		
	0.42108	0.42135					0.42636	2.007
209 Hexadecane	+++++	0.59405	0.60881	0.58501	0.57367	0.57253		
	0.57411	0.57436					0.58322	2.366
208 n-Octadecane	+++++	0.19627	0.19864	0.18959	0.18508	0.18610		
	0.18559	0.18418					0.18935	3.079
211 n-Eicosane	+++++	0.36206	0.38358	0.38585	0.38030	0.36522		
	0.37840	0.37671					0.37602	2.403
212 n-Docosane	+++++	0.26001	0.29495	0.29691	0.29420	0.28989		
	0.30134	0.30124					0.29122	4.924
\$ 36 Nitrobenzene-d5	+++++	1.10967	1.23646	1.24309	1.23821	1.25015		
	1.25163	1.27125					1.22864	4.373

STL-Denver

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 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 09:05 kidd  
 Curve Type : Average

Compound	5.000	10.000	20.000	50.000	80.000	120.000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
	160.000	200.000						
	Level 7	Level 8						
\$ 70 2-Fluorobiphenyl	+++++	1.34264	1.34651	1.29455	1.22563	1.24060		
	1.23657	1.22446					1.27299	4.266
\$ 133 Terphenyl-d14	+++++	0.62835	0.62610	0.61187	0.56790	0.56567		
	0.52572	0.53091					0.57950	7.450
\$ 10 2-Fluorophenol	+++++	1.12329	1.17596	1.18506	1.17653	1.16731		
	1.19480	1.18519					1.17259	1.998
\$ 14 Phenol-d5	+++++	1.42139	1.47278	1.42057	1.39270	1.38523		
	1.35935	1.36519					1.40246	2.803
\$ 103 2,4,6-Tribromophenol	+++++	0.04507	0.05345	0.05853	0.06200	0.06261		
	0.06345	0.06382					0.05842	11.853
\$ 163 1,2-Dichlorobenzene-d4	+++++	0.91157	0.90488	0.85154	0.81786	0.81933		
	0.82115	0.83004					0.85091	4.799
\$ 162 2-Chlorophenol-d4	+++++	1.24056	1.24325	1.20960	1.17096	1.18992		
	1.17245	1.18677					1.20193	2.510

*MAN*  
06-03-04

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2093.d  
 Lab Smp Id: HSL\_0080 Client Smp ID: HSL\_0080  
 Inj Date : 29-MAY-2004 11:58  
 Operator : kiddd Inst ID: P.i  
 Smp Info : HSL\_0080,BNA1509,P:043004,E:053104  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 08:29 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 15:56 Cal File: p2102.d  
 Als bottle: 13 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 1-HSL.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 22 1,4-Dichlorobenzene-d4		152	5.365	5.365	(1.000)	340571	40.0000	
* 49 Naphthalene-d8		136	6.582	6.582	(1.000)	1226615	40.0000	
* 83 Acenaphthene-d10		164	8.251	8.251	(1.000)	656132	40.0000	
* 117 Phenanthrene-d10		188	9.489	9.489	(1.000)	1163805	40.0000	
* 142 Chrysene-d12		240	11.737	11.737	(1.000)	1266300	40.0000	
* 151 Perylene-d12		264	13.443	13.443	(1.000)	1208372	40.0000	
\$ 36 Nitrobenzene-d5		82	5.907	5.907	(1.101)	843400	80.0000	80.6236
\$ 70 2-Fluorobiphenyl		172	7.613	7.613	(0.923)	1608353	80.0000	77.0235
\$ 133 Terphenyl-d14		244	10.759	10.759	(0.917)	1438263	80.0000	78.3982
\$ 10 2-Fluorophenol		112	4.286	4.286	(0.799)	1202078	120.000	120.403
\$ 14 Phenol-d5		99	5.035	5.035	(0.939)	1422939	120.000	119.165
\$ 103 2,4,6-Tribromophenol		330	8.931	8.931	(0.941)	216482	120.000	127.362
\$ 163 1,2-Dichlorobenzene-d4		152	5.546	5.546	(1.034)	557082	80.0000	76.8932
\$ 162 2-Chlorophenol-d4		132	5.200	5.200	(0.969)	1196392	120.000	116.908
5 Pyridine		79	3.292	3.292	(0.614)	700884	80.0000	81.3386

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
-----	----	--	-----	-----	-----	-----	-----
4 N-Nitrosodimethylamine	74	3.260	3.260	(0.608)	484713	80.0000	81.7133
16 Aniline	93	5.110	5.110	(0.952)	769756	80.0000	84.7484
15 Phenol	94	5.046	5.046	(0.941)	989665	80.0000	78.4005
18 Bis(2-chloroethyl) ether	93	5.126	5.126	(0.955)	988929	80.0000	77.1418
20 2-Chlorophenol	128	5.211	5.211	(0.971)	836429	80.0000	78.3573
21 1,3-Dichlorobenzene	146	5.338	5.338	(0.995)	898285	80.0000	76.8753
23 1,4-Dichlorobenzene	146	5.381	5.381	(1.003)	912784	80.0000	76.2252
24 Benzyl alcohol	108	5.492	5.492	(1.024)	502981	80.0000	82.0321
25 1,2-Dichlorobenzene	146	5.562	5.562	(1.037)	868309	80.0000	78.2912
26 2-Methylphenol	108	5.588	5.588	(1.042)	743925	80.0000	79.4091
27 1H-Indene	116	5.631	5.631	(1.050)	1408928	80.0000	78.0888
28 2,2'-oxybis(1-chloropropane)	45	5.615	5.615	(1.047)	713167	80.0000	77.8706
29 4-Methylphenol	108	5.716	5.716	(1.065)	758594	80.0000	78.9230
30 N-nitrosodi-n-propylamine	70	5.748	5.748	(1.071)	544981	80.0000	79.3074
32 Acetophenone	105	5.748	5.748	(1.071)	1105141	80.0000	78.6544
33 Hexachloroethane	117	5.849	5.849	(1.090)	377552	80.0000	79.1285
37 Nitrobenzene	77	5.923	5.923	(1.104)	827312	80.0000	78.6711
40 Isophorone	82	6.125	6.125	(0.931)	1412474	80.0000	82.2737
41 2-Nitrophenol	139	6.226	6.226	(0.946)	398518	80.0000	83.2553
42 2,4-Dimethylphenol	107	6.221	6.221	(0.945)	772047	80.0000	78.2118
43 Bis(2-chloroethoxy)methane	93	6.306	6.306	(0.958)	846298	80.0000	78.9095
45 Benzoic acid	122	6.300	6.300	(0.957)	353041	80.0000	75.3917
46 2,4-Dichlorophenol	162	6.444	6.444	(0.979)	649492	80.0000	82.2586
47 1,2,4-Trichlorobenzene	180	6.529	6.529	(0.992)	719911	80.0000	77.7301
50 Naphthalene	128	6.603	6.603	(1.003)	2369027	80.0000	78.5338
51 4-Chloroaniline	127	6.662	6.662	(1.012)	838181	80.0000	78.8984
52 Hexachlorobutadiene	225	6.747	6.747	(1.025)	421229	80.0000	78.8665
59 4-Chloro-3-methylphenol	107	7.108	7.108	(1.080)	658972	80.0000	81.2699
62 2-Methylnaphthalene	142	7.267	7.267	(1.104)	1409136	80.0000	77.9232
64 1-Methylnaphthalene	142	7.374	7.374	(1.120)	1419047	80.0000	77.9982
63 Hexachlorocyclopentadiene	237	7.469	7.469	(0.905)	469853	80.0000	81.4535
67 2,4,6-Trichlorophenol	196	7.554	7.554	(0.916)	417022	80.0000	80.8789
68 2,4,5-Trichlorophenol	196	7.602	7.602	(0.921)	449328	80.0000	82.7879
71 2-Chloronaphthalene	162	7.735	7.735	(0.938)	1369769	80.0000	78.3547
74 2-Nitroaniline	65	7.852	7.852	(0.952)	360956	80.0000	79.6131
76 Dimethyl phthalate	163	7.996	7.996	(0.969)	1467176	80.0000	80.7917
79 2,6-Dinitrotoluene	165	8.081	8.081	(0.979)	296574	80.0000	79.7210
81 Acenaphthylene	152	8.123	8.123	(0.985)	2253430	80.0000	80.2635
82 3-Nitroaniline	138	8.219	8.219	(0.996)	327776	80.0000	79.3683
84 Acenaphthene	153	8.283	8.283	(1.004)	1387449	80.0000	77.7370
85 2,4-Dinitrophenol	184	8.304	8.304	(1.006)	139631	80.0000	79.5896
86 4-Nitrophenol	109	8.346	8.346	(1.012)	215082	80.0000	76.7434
87 2,4-Dinitrotoluene	165	8.426	8.426	(1.021)	399464	80.0000	79.8946
88 Dibenzofuran	168	8.415	8.415	(1.020)	1922514	80.0000	78.5722
93 Diethyl phthalate	149	8.596	8.596	(1.042)	1516484	80.0000	81.2867
95 4-Chlorophenyl phenyl ether	204	8.681	8.681	(1.052)	786501	80.0000	78.5314
96 Fluorene	166	8.713	8.713	(1.056)	1496874	80.0000	79.1095

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
97 4-Nitroaniline	138	8.750	8.750	(1.061)	318514	80.0000	79.8306
99 4,6-Dinitro-2-methylphenol	198	8.771	8.771	(1.063)	233551	80.0000	76.7444
101 N-nitrosodiphenylamine	169	8.782	8.782	(1.064)	1040471	80.0000	79.9142
102 Azobenzene	77	8.814	8.814	(1.068)	1488795	80.0000	80.7950
108 4-Bromophenyl phenyl ether	248	9.085	9.085	(0.957)	380252	80.0000	78.9049
110 Hexachlorobenzene	284	9.234	9.234	(0.973)	375468	80.0000	78.7969
113 Pentachlorophenol	266	9.377	9.377	(0.988)	202575	80.0000	77.4996
118 Phenanthrene	178	9.510	9.510	(1.002)	2096394	80.0000	78.6636
122 Anthracene	178	9.547	9.547	(1.006)	2065877	80.0000	79.6096
123 Carbazole	167	9.670	9.670	(1.019)	1962586	80.0000	79.4522
125 Di-n-butyl phthalate	149	9.893	9.893	(1.043)	2357479	80.0000	83.8403
130 Fluoranthene	202	10.488	10.488	(1.105)	2359827	80.0000	78.6406
131 Benzidine	184	10.568	10.568	(0.900)	338593	80.0000	102.839
132 Pyrene	202	10.690	10.690	(0.911)	2458684	80.0000	78.1509
137 Butyl benzyl phthalate	149	11.147	11.147	(0.950)	1085442	80.0000	85.1170
140 3,3'-Dichlorobenzidine	252	11.662	11.662	(0.994)	851382	80.0000	85.5545
141 Benzo(a)anthracene	228	11.716	11.716	(0.998)	2364445	80.0000	79.2447
144 Chrysene	228	11.763	11.763	(1.002)	2252284	80.0000	77.2529
143 Bis(2-ethylhexyl) phthalate	149	11.604	11.604	(0.989)	1555254	80.0000	81.4851
146 Di-n-octyl phthalate	149	12.189	12.189	(1.038)	2869455	80.0000	82.0378
147 Benzo(b)fluoranthene	252	12.911	12.911	(0.960)	2356956	80.0000	72.7677
148 Benzo(k)fluoranthene	252	12.938	12.938	(0.962)	2712703	80.0000	79.3522
150 Benzo(a)pyrene	252	13.363	13.363	(0.994)	2325241	80.0000	79.7370
155 Indeno(1,2,3-cd)pyrene	276	15.260	15.260	(1.135)	2890620	80.0000	85.4378
156 Dibenz(a,h)anthracene	278	15.244	15.244	(1.134)	2456036	80.0000	85.2024
157 Benzo(g,h,i)perylene	276	15.824	15.824	(1.177)	2566966	80.0000	87.5162
168 Methyl Styrene	118	5.126	5.126	(0.955)	893416	80.0000	77.8846
202 Alachlor	188	9.808	9.808	(1.034)	281734	80.0000	84.8914
204 Atrazine	200	9.213	9.213	(0.971)	28368	80.0000	88.8061
205 Caprolactam	55	6.981	6.981	(1.061)	203768	80.0000	81.4401
207 2,3-Dichlorobenzeneamine	161	7.570	7.570	(0.918)	725009	80.0000	79.4486
206 Decane	43	5.163	5.163	(0.962)	595270	80.0000	77.1332
213 n-Dodecane	43	6.476	6.476	(0.785)	571989	80.0000	78.6882
210 Tetradecane	43	7.602	7.602	(0.921)	548778	80.0000	78.4668
209 Hexadecane	57	8.506	8.506	(1.031)	752813	80.0000	78.6907
208 n-Octadecane	85	9.250	9.250	(0.975)	430799	80.0000	78.1967
211 n-Eicosane	43	9.909	9.909	(1.201)	499051	80.0000	80.9108
212 n-docosane	43	10.509	10.509	(1.274)	386062	80.0000	80.8174 (H)

QC Flag Legend

H - Operator selected an alternate compound hit.

STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2093.d  
 Lab Smp Id: HSL\_0080  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kidd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 11:58  
 Client Smp ID: HSL\_0080  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

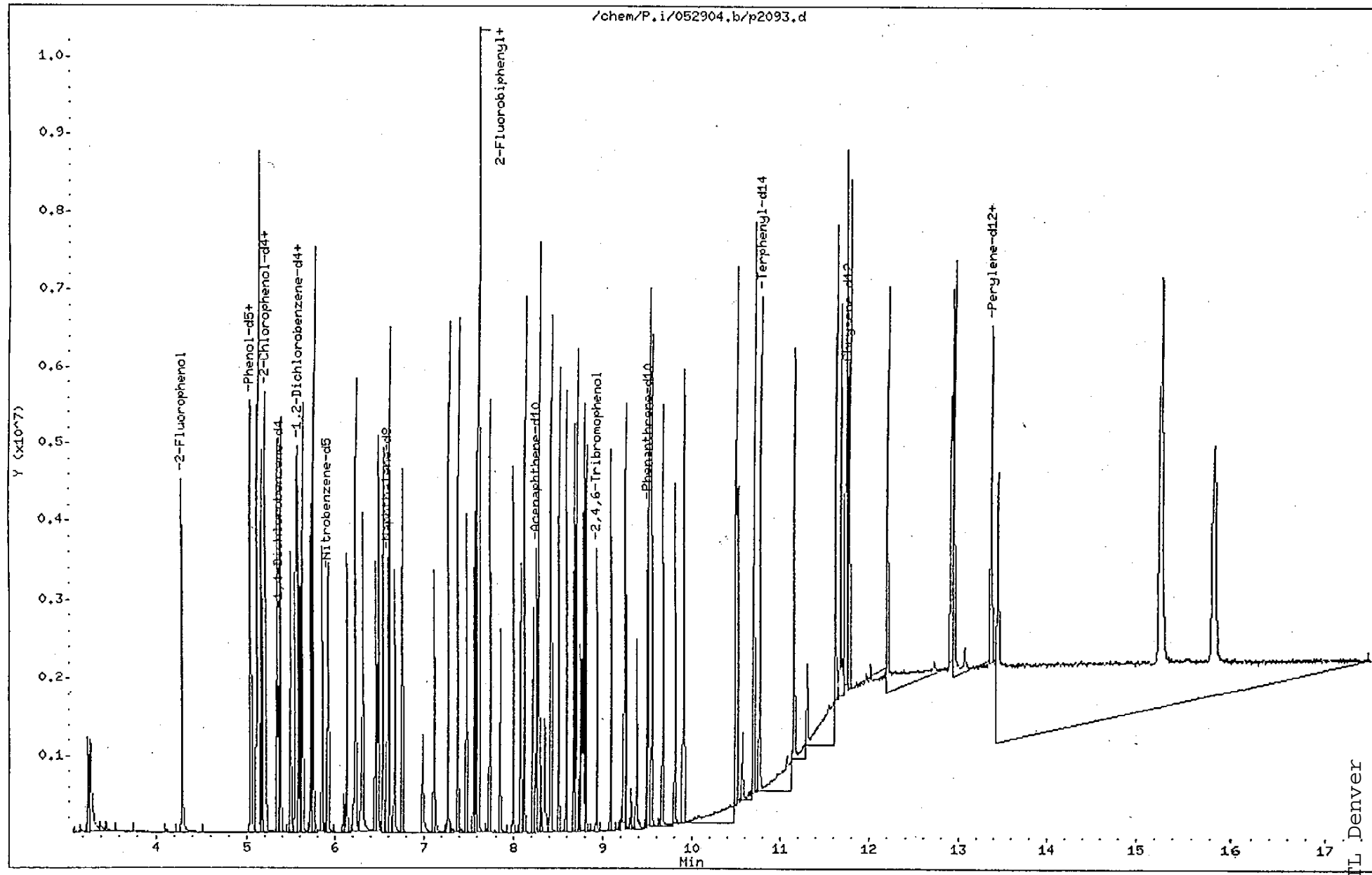
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	278713	139356	557426	340571	22.19
49 Naphthalene-d8	1059542	529771	2119084	1226615	15.77
83 Acenaphthene-d10	593021	296510	1186042	656132	10.64
117 Phenanthrene-d10	1037755	518878	2075510	1163805	12.15
142 Chrysene-d12	1004679	502340	2009358	1266300	26.04
151 Perylene-d12	875814	437907	1751628	1208372	37.97

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	0.02
49 Naphthalene-d8	6.58	6.08	7.08	6.58	0.02
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	0.01
117 Phenanthrene-d10	9.48	8.98	9.98	9.49	0.12
142 Chrysene-d12	11.68	11.18	12.18	11.74	0.46
151 Perylene-d12	13.38	12.88	13.88	13.44	0.48

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.

Data File: /chem/P.i/052904.b/p2093.d  
Date: 29-MAY-2004 11:58  
Client ID: HSL\_0080  
Sample Info: HSL\_0080,BNA1509,P:043004,E:053104  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

Instrument: P.i  
Operator: kidd  
Column diameter: 0.25





*MK*  
 06-03-04

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2094.d  
 Lab Smp Id: HSL\_0005 Client Smp ID: HSL\_0005  
 Inj Date : 29-MAY-2004 12:25  
 Operator : kiddd Inst ID: P.i  
 Smp Info : HSL\_0005,BNA1509,P:043004,E:053104  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 08:29 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 12:25 Cal File: p2094.d  
 Als bottle: 9 Calibration Sample, Level: 1  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 1-HSL.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 22 1,4-Dichlorobenzene-d4		152	5.364	5.364	(1.000)	374532	40.0000	
* 49 Naphthalene-d8		136	6.581	6.581	(1.000)	1415329	40.0000	
* 83 Acenaphthene-d10		164	8.250	8.250	(1.000)	768417	40.0000	
* 117 Phenanthrene-d10		188	9.488	9.488	(1.000)	1278805	40.0000	
* 142 Chrysene-d12		240	11.736	11.736	(1.000)	1295900	40.0000	
* 151 Perylene-d12		264	13.442	13.442	(1.000)	1098754	40.0000	
\$ 36 Nitrobenzene-d5		82	5.912	5.912	(1.102)	50460	5.00000	4.38626(a)
\$ 70 2-Fluorobiphenyl		172	7.612	7.612	(0.923)	130547	5.00000	5.33830(a)
\$ 133 Terphenyl-d14		244	10.759	10.759	(0.917)	99134	5.00000	5.28026(a)
\$ 10 2-Fluorophenol		112	4.296	4.296	(0.801)	71464	7.50000	6.50896(a)
\$ 14 Phenol-d5		99	5.040	5.040	(0.940)	90524	7.50000	6.89357(a)
\$ 103 2,4,6-Tribromophenol		330	8.936	8.936	(0.942)	9282	7.50000	4.96974(a)
\$ 163 1,2-Dichlorobenzene-d4		152	5.550	5.550	(1.035)	42184	5.00000	5.29463(a)
\$ 162 2-Chlorophenol-d4		132	5.200	5.200	(0.969)	84679	7.50000	7.52432(a)
5 Pyridine		79						Compound Not Detected.

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
4 N-Nitrosodimethylamine	74	3.281	3.281	(0.612)	27609	5.00000	4.23231(a)
16 Aniline	93	5.109	5.109	(0.952)	74024	5.00000	8.59132(a)
15 Phenol	94	5.051	5.051	(0.942)	67747	5.00000	4.88022(a)
18 Bis(2-chloroethyl) ether	93	5.125	5.125	(0.955)	75311	5.00000	5.34197(a)
20 2-Chlorophenol	128	5.216	5.216	(0.972)	58961	5.00000	5.02266(a)
21 1,3-Dichlorobenzene	146	5.338	5.338	(0.995)	67627	5.00000	5.26274(a)
23 1,4-Dichlorobenzene	146	5.380	5.380	(1.003)	71230	5.00000	5.40894(a)
24 Benzyl alcohol	108	5.503	5.503	(1.026)	25472	5.00000	3.77758(a)
25 1,2-Dichlorobenzene	146	5.561	5.561	(1.037)	64429	5.00000	5.28249(a)
26 2-Methylphenol	108	5.593	5.593	(1.043)	53511	5.00000	5.19401(a)
27 1H-Indene	116	5.630	5.630	(1.050)	103684	5.00000	5.22553(a)
28 2,2'-oxybis(1-chloropropane)	45	5.614	5.614	(1.047)	52696	5.00000	5.23213(a)
29 4-Methylphenol	108	5.720	5.720	(1.066)	47211	5.00000	4.46638(a)
30 N-nitrosodi-n-propylamine	70	5.752	5.752	(1.072)	34110	5.00000	4.51370(a)
32 Acetophenone	105	5.752	5.752	(1.072)	74781	5.00000	4.83966
33 Hexachloroethane	117	5.848	5.848	(1.090)	25798	5.00000	4.91655(a)
37 Nitrobenzene	77	5.928	5.928	(1.105)	55422	5.00000	4.79233(a)
40 Isophorone	82	6.130	6.130	(0.931)	83593	5.00000	4.21989(a)
41 2-Nitrophenol	139	6.231	6.231	(0.947)	19757	5.00000	3.57714(a)
42 2,4-Dimethylphenol	107	6.220	6.220	(0.945)	53704	5.00000	4.71504(a)
43 Bis(2-chloroethoxy)methane	93	6.310	6.310	(0.959)	57894	5.00000	4.67832(a)
46 2,4-Dichlorophenol	162	6.454	6.454	(0.981)	40013	5.00000	4.39197(a)
47 1,2,4-Trichlorobenzene	180	6.528	6.528	(0.992)	55910	5.00000	5.23180(a)
50 Naphthalene	128	6.603	6.603	(1.003)	188764	5.00000	5.42321(a)
51 4-Chloroaniline	127	6.666	6.666	(1.013)	58385	5.00000	4.76302(a)
52 Hexachlorobutadiene	225	6.746	6.746	(1.025)	30435	5.00000	4.93854(a)
59 4-Chloro-3-methylphenol	107	7.113	7.113	(1.081)	36676	5.00000	3.92009(a)
62 2-Methylnaphthalene	142	7.267	7.267	(1.104)	111510	5.00000	5.34415(a)
64 1-Methylnaphthalene	142	7.379	7.379	(1.121)	111178	5.00000	5.29612(a)
63 Hexachlorocyclopentadiene	237	7.469	7.469	(0.905)	24264	5.00000	3.59173(aQ)
67 2,4,6-Trichlorophenol	196	7.559	7.559	(0.916)	23086	5.00000	3.82313(a)
68 2,4,5-Trichlorophenol	196	7.607	7.607	(0.922)	26126	5.00000	4.11027(a)
71 2-Chloronaphthalene	162	7.735	7.735	(0.938)	103099	5.00000	5.03578(a)
74 2-Nitroaniline	65	7.852	7.852	(0.952)	13021	5.00000	6.95850(a)
76 Dimethyl phthalate	163	8.000	8.000	(0.970)	93379	5.00000	4.39064(a)
79 2,6-Dinitrotoluene	165	8.080	8.080	(0.979)	12078	5.00000	6.79150(a)
81 Acenaphthylene	152	8.123	8.123	(0.985)	149026	5.00000	4.53242(a)
82 3-Nitroaniline	138	8.229	8.229	(0.997)	9165	5.00000	6.73524(a)
84 Acenaphthene	153	8.282	8.282	(1.004)	110126	5.00000	5.26859(a)
85 2,4-Dinitrophenol	184	Compound Not Detected.					
86 4-Nitrophenol	109	8.372	8.372	(1.015)	1951	5.00000	11.0894(Q)
87 2,4-Dinitrotoluene	165	8.431	8.431	(1.022)	14154	5.00000	6.70911(a)
88 Dibenzofuran	168	8.415	8.415	(1.020)	153856	5.00000	5.36918(a)
93 Diethyl phthalate	149	8.596	8.596	(1.042)	92743	5.00000	4.24480(a)
95 4-Chlorophenyl phenyl ether	204	8.681	8.681	(1.052)	61417	5.00000	5.23632(a)
96 Fluorene	166	8.707	8.707	(1.055)	114883	5.00000	5.18434(a)
97 4-Nitroaniline	138	8.755	8.755	(1.061)	5951	5.00000	6.99038(a)

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
99 4,6-Dinitro-2-methylphenol	198	8.771	8.771	(1.063)	4528	5.00000	10.1762 (Q)
101 N-nitrosodiphenylamine	169	8.782	8.782	(1.064)	72086	5.00000	4.72758 (a)
102 Azobenzene	77	8.813	8.813	(1.068)	89995	5.00000	4.17025 (a)
108 4-Bromophenyl phenyl ether	248	9.084	9.084	(0.957)	26929	5.00000	5.08544 (a)
110 Hexachlorobenzene	284	9.233	9.233	(0.973)	27885	5.00000	5.32577 (a)
113 Pentachlorophenol	266	9.377	9.377	(0.988)	5794	5.00000	11.4376
118 Phenanthrene	178	9.510	9.510	(1.002)	158187	5.00000	5.40191 (a)
122 Anthracene	178	9.547	9.547	(1.006)	139909	5.00000	4.90662 (a)
123 Carbazole	167	9.669	9.669	(1.019)	130054	5.00000	4.79156 (a)
125 Di-n-butyl phthalate	149	9.898	9.898	(1.043)	116611	5.00000	3.77416 (a)
130 Fluoranthene	202	10.493	10.493	(1.106)	161263	5.00000	4.89077 (a)
131 Benzidine	184	10.573	10.573	(0.901)	31247	5.00000	9.27369 (a)
132 Pyrene	202	10.689	10.689	(0.911)	171978	5.00000	5.34158 (a)
137 Butyl benzyl phthalate	149	11.146	11.146	(0.950)	44999	5.00000	3.44808 (a)
140 3,3'-Dichlorobenzidine	252	11.667	11.667	(0.994)	39847	5.00000	3.91272 (a)
141 Benzo(a)anthracene	228	11.720	11.720	(0.999)	149217	5.00000	4.88680 (a)
144 Chrysene	228	11.763	11.763	(1.002)	163077	5.00000	5.46574 (a)
143 Bis(2-ethylhexyl) phthalate	149	11.609	11.609	(0.989)	56054	5.00000	5.16763 (a)
146 Di-n-octyl phthalate	149	12.193	12.193	(1.039)	99825	5.00000	6.79165 (aQ)
147 Benzo(b)fluoranthene	252	12.911	12.911	(0.960)	150618	5.00000	5.11404 (a)
148 Benzo(k)fluoranthene	252	12.937	12.937	(0.962)	141003	5.00000	4.53613 (a)
150 Benzo(a)pyrene	252	13.363	13.363	(0.994)	114969	5.00000	4.33584 (a)
155 Indeno(1,2,3-cd)pyrene	276	15.249	15.249	(1.134)	143065	5.00000	4.65042 (a)
156 Dibenz(a,h)anthracene	278	15.239	15.239	(1.134)	127413	5.00000	4.86106 (a)
157 Benzo(g,h,i)perylene	276	15.812	15.812	(1.176)	134814	5.00000	5.05480 (a)
168 Methyl Styrene	118	5.125	5.125	(0.955)	61816	5.00000	4.90024 (a)
202 Alachlor	188	9.807	9.807	(1.034)	11672	5.00000	3.20070 (a)
204 Atrazine	200	9.212	9.212	(0.971)	3006	5.00000	8.56404 (aQ)
205 Caprolactam	55	6.991	6.991	(1.062)	5399	5.00000	7.62649 (aQ)
207 2,3-Dichlorobenzeneamine	161	7.570	7.570	(0.918)	51337	5.00000	4.80361 (a)
206 Decane	43	5.162	5.162	(0.962)	45657	5.00000	5.37964 (a)
213 n-Dodecane	43	6.475	6.475	(0.785)	42936	5.00000	5.04357 (a)
210 Tetradecane	43	7.602	7.602	(0.921)	40842	5.00000	4.98644 (a)
209 Hexadecane	57	8.505	8.505	(1.031)	55519	5.00000	4.95532 (a)
208 n-Octadecane	85	9.249	9.249	(0.975)	29671	5.00000	4.90142 (a)
211 n-Eicosane	43	9.908	9.908	(1.201)	33010	5.00000	4.56984 (a)
212 n-docosane	43	10.514	10.514	(1.274)	23108	5.00000	4.13052 (a)

QC Flag Legend

- a - Target compound detected but, quantitated amount  
 Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.

STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2094.d  
 Lab Smp Id: HSL 0005  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kiddd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 11:58  
 Client Smp ID: HSL\_0005  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

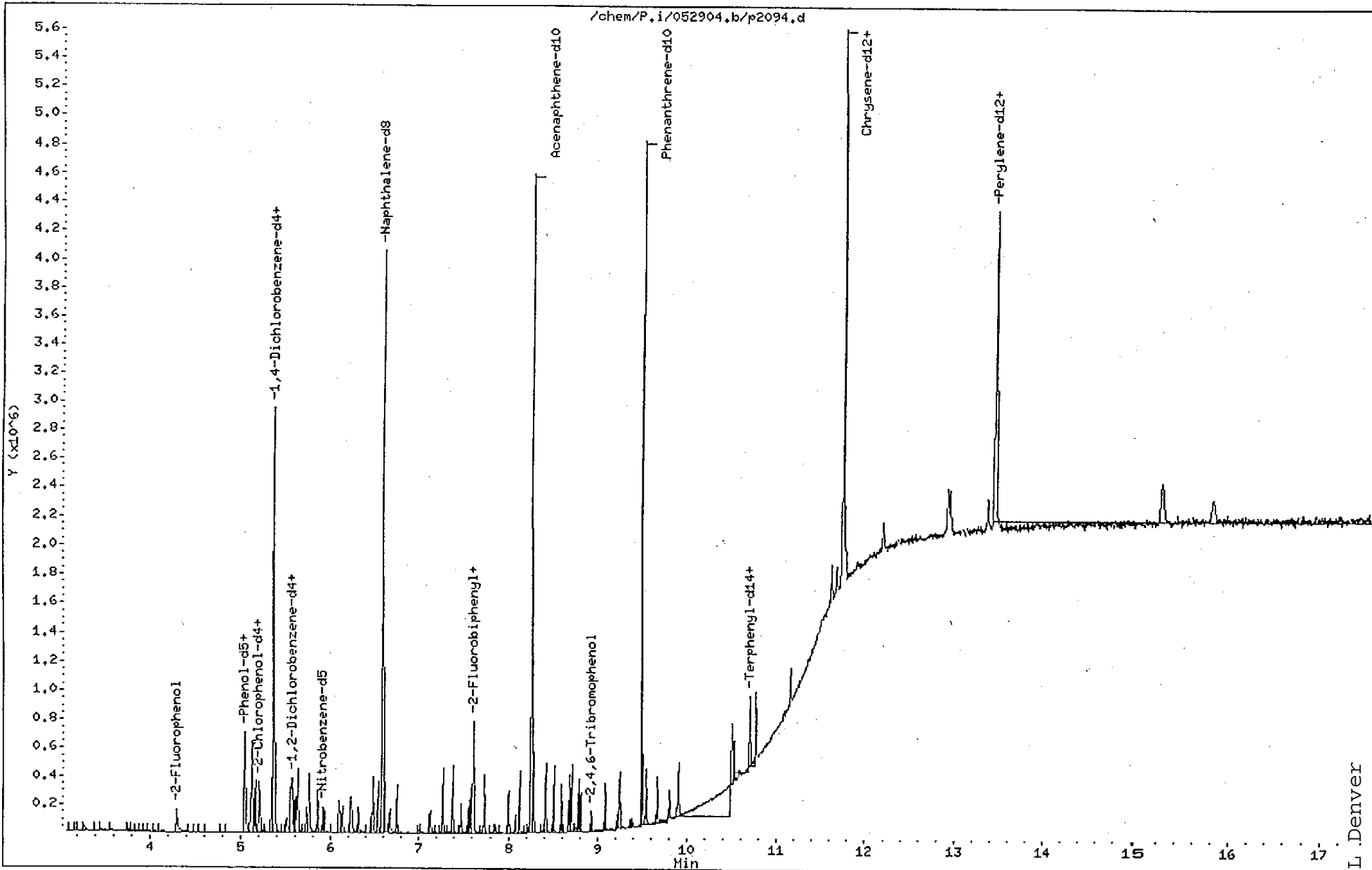
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	278713	139356	557426	374532	34.38
49 Naphthalene-d8	1059542	529771	2119084	1415329	33.58
83 Acenaphthene-d10	593021	296510	1186042	768417	29.58
117 Phenanthrene-d10	1037755	518878	2075510	1278805	23.23
142 Chrysene-d12	1004679	502340	2009358	1295900	28.99
151 Perylene-d12	875814	437907	1751628	1098754	25.46

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	0.01
49 Naphthalene-d8	6.58	6.08	7.08	6.58	0.01
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	0.01
117 Phenanthrene-d10	9.48	8.98	9.98	9.49	0.12
142 Chrysene-d12	11.68	11.18	12.18	11.74	0.46
151 Perylene-d12	13.38	12.88	13.88	13.44	0.48

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.

Data File: /chem/P,i/052904.b/p2094.d  
Date : 29-MAY-2004 12:25  
Client ID: HSL\_0005  
Sample Info: HSL\_0005,BNA1509,P:043004,E:053104  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

Instrument: P,i  
Operator: kidd  
Column diameter: 0.25



*MW*  
*06-03-04*

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2095.d  
 Lab Smp Id: HSL\_0010 Client Smp ID: HSL\_0010  
 Inj Date : 29-MAY-2004 12:51  
 Operator : kiddd Inst ID: P.i  
 Smp Info : HSL\_0010,BNA1509,P:043004,E:053104  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 08:30 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 16:23 Cal File: p2103.d  
 Als bottle: 10 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 1-HSL.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 22 1,4-Dichlorobenzene-d4		152	5.369	5.369	(1.000)	330561	40.0000	
* 49 Naphthalene-d8		136	6.580	6.580	(1.000)	1230457	40.0000	
* 83 Acenaphthene-d10		164	8.254	8.254	(1.000)	676831	40.0000	
* 117 Phenanthrene-d10		188	9.487	9.487	(1.000)	1145062	40.0000	
* 142 Chrysene-d12		240	11.725	11.725	(1.000)	1128493	40.0000	
* 151 Perylene-d12		264	13.425	13.425	(1.000)	959054	40.0000	
\$ 36 Nitrobenzene-d5		82	5.911	5.911	(1.101)	91703	10.0000	9.03167(a)
\$ 70 2-Fluorobiphenyl		172	7.611	7.611	(0.922)	227185	10.0000	10.5471
\$ 133 Terphenyl-d14		244	10.752	10.752	(0.917)	177271	10.0000	10.8428
\$ 10 2-Fluorophenol		112	4.295	4.295	(0.800)	139244	15.0000	14.3694
\$ 14 Phenol-d5		99	5.039	5.039	(0.939)	176196	15.0000	15.2025
\$ 103 2,4,6-Tribromophenol		330	8.935	8.935	(0.942)	19355	15.0000	11.5734
\$ 163 1,2-Dichlorobenzene-d4		152	5.549	5.549	(1.034)	75332	10.0000	10.7128
\$ 162 2-Chlorophenol-d4		132	5.199	5.199	(0.968)	153780	15.0000	15.4821
5 Pyridine		79	3.376	3.376	(0.629)	37191	10.0000	4.44677(a)

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
4 N-Nitrosodimethylamine	74	3.275	3.275	(0.610)	51303	10.0000	8.91060(a)
16 Aniline	93	5.108	5.108	(0.951)	136725	10.0000	10.9202
15 Phenol	94	5.050	5.050	(0.941)	120509	10.0000	9.83572(a)
18 Bis(2-chloroethyl) ether	93	5.124	5.124	(0.954)	127756	10.0000	10.2674
20 2-Chlorophenol	128	5.215	5.215	(0.971)	106416	10.0000	10.2710
21 1,3-Dichlorobenzene	146	5.337	5.337	(0.994)	119582	10.0000	10.5437
23 1,4-Dichlorobenzene	146	5.385	5.385	(1.003)	125461	10.0000	10.7943
24 Benzyl alcohol	108	5.496	5.496	(1.024)	49015	10.0000	8.23602(a)
25 1,2-Dichlorobenzene	146	5.560	5.560	(1.036)	114497	10.0000	10.6362
26 2-Methylphenol	108	5.592	5.592	(1.042)	95072	10.0000	10.4556
27 1H-Indene	116	5.629	5.629	(1.048)	185492	10.0000	10.5921
28 2,2'-oxybis(1-chloropropane)	45	5.613	5.613	(1.046)	96082	10.0000	10.8089
29 4-Methylphenol	108	5.719	5.719	(1.065)	88274	10.0000	9.46200(a)
30 N-nitrosodi-n-propylamine	70	5.751	5.751	(1.071)	62188	10.0000	9.32385(a)
32 Acetophenone	105	5.751	5.751	(1.071)	136897	10.0000	10.0382
33 Hexachloroethane	117	5.847	5.847	(1.089)	45528	10.0000	9.83084(a)
37 Nitrobenzene	77	5.927	5.927	(1.104)	97287	10.0000	9.53140(a)
40 Isophorone	82	6.129	6.129	(0.931)	154462	10.0000	8.96900(a)
41 2-Nitrophenol	139	6.230	6.230	(0.947)	38513	10.0000	8.02072(a)
42 2,4-Dimethylphenol	107	6.219	6.219	(0.945)	100355	10.0000	10.1346
43 Bis(2-chloroethoxy)methane	93	6.309	6.309	(0.959)	109191	10.0000	10.1493
45 Benzoic acid	122	6.293	6.293	(0.956)	18236	10.0000	3.88213(a)
46 2,4-Dichlorophenol	162	6.453	6.453	(0.981)	73684	10.0000	9.30298(a)
47 1,2,4-Trichlorobenzene	180	6.532	6.532	(0.993)	98083	10.0000	10.5571
50 Naphthalene	128	6.602	6.602	(1.003)	324782	10.0000	10.7330
51 4-Chloroaniline	127	6.665	6.665	(1.013)	107901	10.0000	10.1250
52 Hexachlorobutadiene	225	6.750	6.750	(1.026)	55706	10.0000	10.3972
59 4-Chloro-3-methylphenol	107	7.106	7.106	(1.080)	67945	10.0000	8.35338(a)
62 2-Methylnaphthalene	142	7.266	7.266	(1.104)	193582	10.0000	10.6714
64 1-Methylnaphthalene	142	7.377	7.377	(1.121)	192848	10.0000	10.5668
63 Hexachlorocyclopentadiene	237	7.473	7.473	(0.905)	45367	10.0000	7.62428(a)
67 2,4,6-Trichlorophenol	196	7.558	7.558	(0.916)	45259	10.0000	8.50927(a)
68 2,4,5-Trichlorophenol	196	7.606	7.606	(0.921)	46295	10.0000	8.26891(a)
71 2-Chloronaphthalene	162	7.734	7.734	(0.937)	186182	10.0000	10.3244
74 2-Nitroaniline	65	7.850	7.850	(0.951)	27309	10.0000	10.1475
76 Dimethyl phthalate	163	7.999	7.999	(0.969)	181462	10.0000	9.68682(a)
79 2,6-Dinitrotoluene	165	8.079	8.079	(0.979)	24077	10.0000	10.1105
81 Acenaphthylene	152	8.121	8.121	(0.984)	283422	10.0000	9.78630(a)
82 3-Nitroaniline	138	8.222	8.222	(0.996)	23713	10.0000	10.1772
84 Acenaphthene	153	8.281	8.281	(1.003)	195923	10.0000	10.6416
85 2,4-Dinitrophenol	184	8.307	8.307	(1.006)	1304	10.0000	13.2211(Q)
86 4-Nitrophenol	109	8.361	8.361	(1.013)	8177	10.0000	13.0155
87 2,4-Dinitrotoluene	165	8.430	8.430	(1.021)	29896	10.0000	9.90119(a)
88 Dibenzofuran	168	8.414	8.414	(1.019)	268186	10.0000	10.6254
93 Diethyl phthalate	149	8.594	8.594	(1.041)	181334	10.0000	9.42262(a)
95 4-Chlorophenyl phenyl ether	204	8.680	8.680	(1.052)	107480	10.0000	10.4036
96 Fluorene	166	8.711	8.711	(1.055)	202897	10.0000	10.3951

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
97 4-Nitroaniline	138	8.754	8.754	(1.061)	20095	10.0000	10.3366
99 4,6-Dinitro-2-methylphenol	198	8.770	8.770	(1.052)	13003	10.0000	12.7090(Q)
101 N-nitrosodiphenylamine	169	8.780	8.780	(1.064)	130026	10.0000	9.68133(a)
102 Azobenzene	77	8.812	8.812	(1.068)	181158	10.0000	9.53055(a)
108 4-Bromophenyl phenyl ether	248	9.083	9.083	(0.957)	47022	10.0000	9.91710(a)
110 Hexachlorobenzene	284	9.232	9.232	(0.973)	48389	10.0000	10.3213
113 Pentachlorophenol	266	9.376	9.376	(0.988)	12784	10.0000	14.0226
118 Phenanthrene	178	9.503	9.503	(1.002)	279121	10.0000	10.6450
122 Anthracene	178	9.540	9.540	(1.006)	255101	10.0000	9.99135(a)
123 Carbazole	167	9.668	9.668	(1.019)	238257	10.0000	9.80334(a)
125 Di-n-butyl phthalate	149	9.891	9.891	(1.043)	225686	10.0000	8.15758(a)
130 Fluoranthene	202	10.486	10.486	(1.105)	298828	10.0000	10.1214
131 Benzidine	184	10.561	10.561	(0.901)	43944	10.0000	14.9767
132 Pyrene	202	10.683	10.683	(0.911)	312788	10.0000	11.1563
137 Butyl benzyl phthalate	149	11.135	11.135	(0.950)	86844	10.0000	7.64165(aH)
140 1,3'-Dichlorobenzidine	252	11.650	11.650	(0.994)	70129	10.0000	7.90777(a)
141 Benzo(a)anthracene	228	11.703	11.703	(0.998)	271851	10.0000	10.2237
144 Chrysene	228	11.746	11.746	(1.002)	284145	10.0000	10.9363
143 Bis(2-ethylhexyl) phthalate	149	11.592	11.592	(0.989)	124004	10.0000	9.45903(a)
146 Di-n-octyl phthalate	149	12.176	12.176	(1.039)	196237	10.0000	10.1212(H)
147 Benzo(b)fluoranthene	252	12.894	12.894	(0.960)	249632	10.0000	9.71058(aH)
148 Benzo(k)fluoranthene	252	12.920	12.920	(0.962)	280484	10.0000	10.3377
150 Benzo(a)pyrene	252	13.346	13.346	(0.994)	218116	10.0000	9.42404(a)
155 Indeno(1,2,3-cd)pyrene	276	15.227	15.227	(1.134)	267406	10.0000	9.95836(a)
156 Dibenzo(a,h)anthracene	278	15.216	15.216	(1.133)	226795	10.0000	9.91308(a)
157 Benzo(g,h,i)perylene	276	15.790	15.790	(1.176)	238329	10.0000	10.2377
168 Methyl Styrene	118	5.124	5.124	(0.954)	114003	10.0000	10.2393
202 Alachlor	188	9.806	9.806	(1.034)	23162	10.0000	7.09316(a)
204 Atrazine	200	9.211	9.211	(0.971)	6149	10.0000	19.5645(Q)
205 Caprolactam	55	6.979	6.979	(1.061)	11452	10.0000	10.1243
207 2,3-Dichlorobenzeneamine	161	7.574	7.574	(0.918)	92644	10.0000	9.84172(a)
206 Decane	43	5.161	5.161	(0.961)	80121	10.0000	10.6962
213 n-Dodecane	43	6.479	6.479	(0.785)	75930	10.0000	10.1262
210 Tetradecane	43	7.606	7.606	(0.921)	72723	10.0000	10.0803
209 Hexadecane	57	8.504	8.504	(1.030)	100518	10.0000	10.1857
208 n-Octadecane	85	9.248	9.248	(0.975)	56185	10.0000	10.3654
211 n-Eicosane	43	9.902	9.902	(1.200)	61264	10.0000	9.62892(a)
212 n-docosane	43	10.502	10.502	(1.272)	43996	10.0000	8.92837(a)

QC Flag Legend

- a - Target compound detected but, quantitated amount  
Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- H - Operator selected an alternate compound hit.



STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i	Calibration Date: 29-MAY-2004
Lab File ID: p2095.d	Calibration Time: 11:58
Lab Smp Id: HSL 0010	Client Smp ID: HSL_0010
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: WATER
Operator: kidd	
Method File: /chem/P.i/052904.b/8270C.m	
Misc Info:	

Test Mode:  
 Use Last Continuing Calibrator.

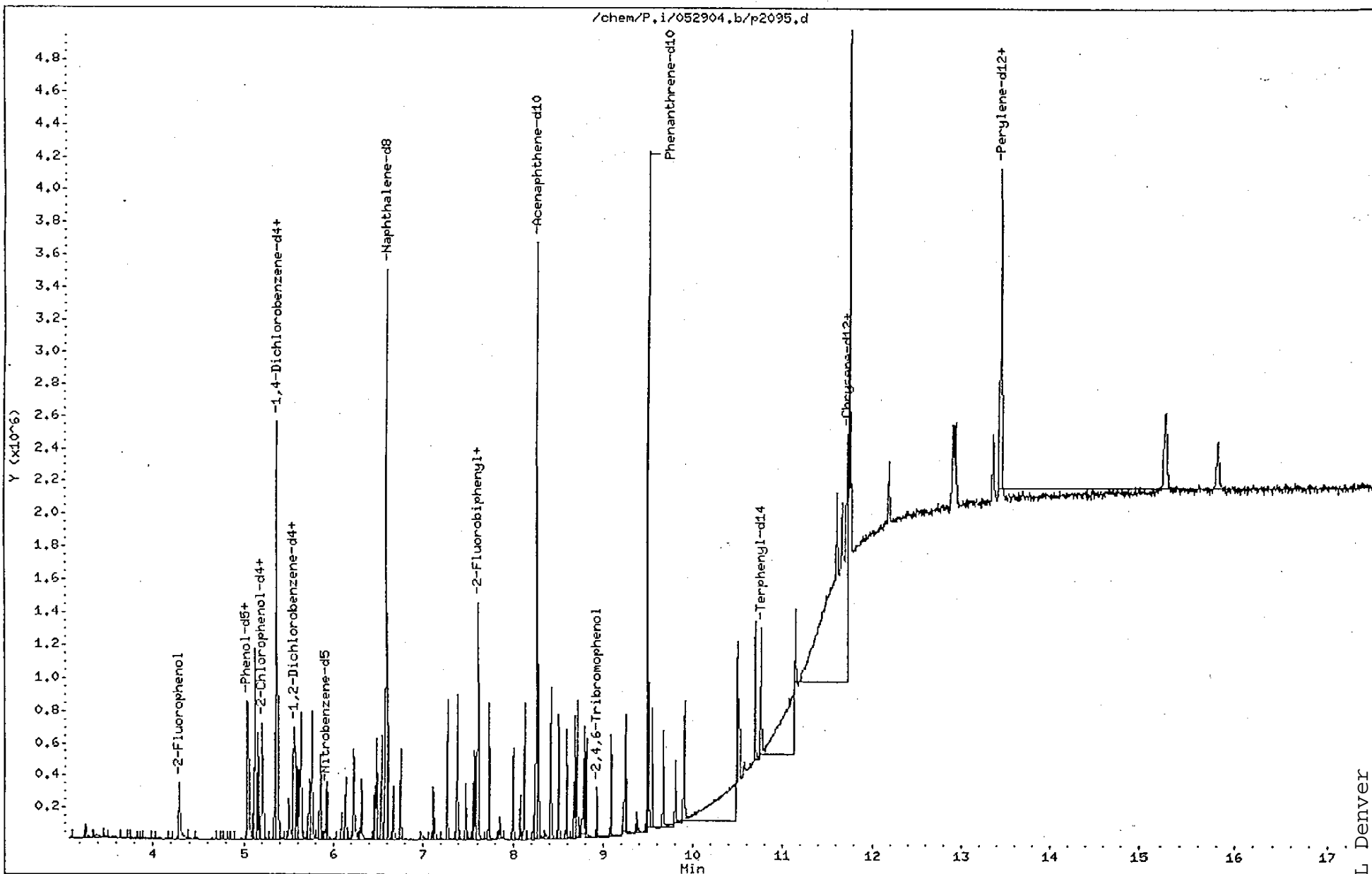
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	278713	139356	557426	330561	18.60
49 Naphthalene-d8	1059542	529771	2119084	1230457	16.13
83 Acenaphthene-d10	593021	296510	1186042	676831	14.13
117 Phenanthrene-d10	1037755	518878	2075510	1145062	10.34
142 Chrysene-d12	1004679	502340	2009358	1128493	12.32
151 Perylene-d12	875814	437907	1751628	959054	9.50

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.37	0.09
49 Naphthalene-d8	6.58	6.08	7.08	6.58	-0.01
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	0.06
117 Phenanthrene-d10	9.48	8.98	9.98	9.49	0.11
142 Chrysene-d12	11.68	11.18	12.18	11.72	0.36
151 Perylene-d12	13.38	12.88	13.88	13.43	0.35

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.

Data File: /chem/P.i/052904.b/p2095.d  
Date: 29-MAY-2004 12:51  
Client ID: HSL\_0010  
Sample Info: HSL\_0010,BHA1509,P:043004,E:053104  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

Instrument: P.i  
Operator: kidd  
Column diameter: 0.25



*from*  
06-03-04

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2096.d  
 Lab Smp Id: HSL\_0020 Client Smp ID: HSL\_0020  
 Inj Date : 29-MAY-2004 13:18  
 Operator : kiddd Inst ID: P.i  
 Smp Info : HSL\_0020,BNA1509,P:043004,E:053104  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 08:30 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 16:49 Cal File: p2104.d  
 Als bottle: 11 Calibration Sample, Level: 3  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 1-HSL.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG			AMOUNTS		
	MASS	RT	EXP RT REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 22 1,4-Dichlorobenzene-d4	152	5.365	5.365 (1.000)	388655	40.0000	
* 49 Naphthalene-d8	136	6.582	6.582 (1.000)	1429198	40.0000	
* 83 Acenaphthene-d10	164	8.251	8.251 (1.000)	781884	40.0000	
* 117 Phenanthrene-d10	188	9.484	9.484 (1.000)	1348390	40.0000	
* 142 Chrysene-d12	240	11.721	11.721 (1.000)	1386557	40.0000	
* 151 Perylene-d12	264	13.422	13.422 (1.000)	1173819	40.0000	
\$ 36 Nitrobenzene-d5	82	5.907	5.907 (1.101)	240279	20.0000	20.1274
\$ 70 2-Fluorobiphenyl	172	7.613	7.613 (0.923)	526408	20.0000	21.1550
\$ 133 Terphenyl-d14	244	10.748	10.748 (0.917)	434060	20.0000	21.6081
\$ 10 2-Fluorophenol	112	4.291	4.291 (0.800)	342781	30.0000	30.0861
\$ 14 Phenol-d5	99	5.035	5.035 (0.939)	429303	30.0000	31.5042
\$ 103 2,4,6-Tribromophenol	330	8.931	8.931 (0.942)	54056	30.0000	27.4489
\$ 163 1,2-Dichlorobenzene-d4	152	5.546	5.546 (1.034)	175844	20.0000	21.2686
\$ 162 2-Chlorophenol-d4	132	5.200	5.200 (0.969)	362396	30.0000	31.0313
5 Pyridine	79	3.308	3.308 (0.617)	199915	20.0000	20.3301

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
4 N-Nitrosodimethylamine	74	3.266	3.266	(0.609)	139205	20.0000	20.5639
16 Aniline	93	5.104	5.104	(0.951)	304017	20.0000	17.9455
15 Phenol	94	5.046	5.046	(0.941)	300844	20.0000	20.8841
18 Bis(2-chloroethyl) ether	93	5.120	5.120	(0.954)	285119	20.0000	19.4892
20 2-Chlorophenol	128	5.211	5.211	(0.971)	254657	20.0000	20.9050
21 1,3-Dichlorobenzene	146	5.338	5.338	(0.995)	282734	20.0000	21.2028
23 1,4-Dichlorobenzene	146	5.381	5.381	(1.003)	290451	20.0000	21.2543
24 Benzyl alcohol	108	5.492	5.492	(1.024)	137669	20.0000	19.6749
25 1,2-Dichlorobenzene	146	5.561	5.561	(1.037)	266459	20.0000	21.0529
26 2-Methylphenol	108	5.588	5.588	(1.042)	215083	20.0000	20.1183
27 1H-Indene	116	5.631	5.631	(1.050)	433979	20.0000	21.0772
28 2,2'-oxybis(1-chloropropane)	45	5.615	5.615	(1.047)	219535	20.0000	21.0053
29 4-Methylphenol	108	5.716	5.716	(1.065)	231777	20.0000	21.1304
30 N-nitrosodi-n-propylamine	70	5.747	5.747	(1.071)	165181	20.0000	21.0638
32 Acetophenone	105	5.747	5.747	(1.071)	338526	20.0000	21.1125
33 Hexachloroethane	117	5.843	5.843	(1.089)	111933	20.0000	20.5569
37 Nitrobenzene	77	5.923	5.923	(1.104)	252241	20.0000	21.0187
40 Isophorone	82	6.125	6.125	(0.931)	405878	20.0000	20.2904
41 2-Nitrophenol	139	6.226	6.226	(0.946)	105384	20.0000	18.8953
42 2,4-Dimethylphenol	107	6.215	6.215	(0.944)	235246	20.0000	20.4534
43 Bis(2-chloroethoxy)methane	93	6.306	6.306	(0.958)	264686	20.0000	21.1813
45 Benzoic acid	122	6.290	6.290	(0.956)	70982	20.0000	13.0096
46 2,4-Dichlorophenol	162	6.449	6.449	(0.980)	183322	20.0000	19.9268
47 1,2,4-Trichlorobenzene	180	6.529	6.529	(0.992)	229305	20.0000	21.2491
50 Naphthalene	128	6.603	6.603	(1.003)	766065	20.0000	21.7956
51 4-Chloroaniline	127	6.662	6.662	(1.012)	268727	20.0000	21.7099
52 Hexachlorobutadiene	225	6.747	6.747	(1.025)	128312	20.0000	20.6185
59 4-Chloro-3-methylphenol	107	7.108	7.108	(1.080)	190548	20.0000	20.1689
62 2-Methylnaphthalene	142	7.267	7.267	(1.104)	459078	20.0000	21.7879
64 1-Methylnaphthalene	142	7.374	7.374	(1.120)	459616	20.0000	21.6820
63 Hexachlorocyclopentadiene	237	7.469	7.469	(0.905)	125636	20.0000	18.2772
67 2,4,6-Trichlorophenol	196	7.554	7.554	(0.916)	119233	20.0000	19.4054
68 2,4,5-Trichlorophenol	196	7.602	7.602	(0.921)	126525	20.0000	19.5627
71 2-Chloronaphthalene	162	7.730	7.730	(0.937)	438625	20.0000	21.0552
74 2-Nitroaniline	65	7.852	7.852	(0.952)	86270	20.0000	19.6845
76 Dimethyl phthalate	163	7.995	7.995	(0.969)	447035	20.0000	20.6574
79 2,6-Dinitrotoluene	165	8.081	8.081	(0.979)	73783	20.0000	19.9382
81 Acenaphthylene	152	8.123	8.123	(0.985)	710556	20.0000	21.2384
82 3-Nitroaniline	138	8.219	8.219	(0.996)	77226	20.0000	19.6704
84 Acenaphthene	153	8.277	8.277	(1.003)	455384	20.0000	21.4110
85 2,4-Dinitrophenol	184	8.304	8.304	(1.006)	22162	20.0000	22.1226
86 4-Nitrophenol	109	8.352	8.352	(1.012)	39671	20.0000	20.8183
87 2,4-Dinitrotoluene	165	8.426	8.426	(1.021)	102067	20.0000	20.6075
88 Dibenzofuran	168	8.410	8.410	(1.019)	629656	20.0000	21.5949
93 Diethyl phthalate	149	8.591	8.591	(1.041)	465030	20.0000	20.9176
95 4-Chlorophenyl phenyl ether	204	8.676	8.676	(1.052)	253640	20.0000	21.2525
96 Fluorene	166	8.708	8.708	(1.055)	477441	20.0000	21.1744

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	
97 4-Nitroaniline	138	8.750	8.750 (1.061)	68684	20.0000	19.2041	
99 4,6-Dinitro-2-methylphenol	198	8.771	8.771 (1.063)	47831	20.0000	20.6887	
101 N-nitrosodiphenylamine	169	8.782	8.782 (1.064)	324140	20.0000	20.8918	
102 Azobenzene	77	8.809	8.809 (1.068)	463003	20.0000	21.0854	
108 4-Bromophenyl phenyl ether	248	9.085	9.085 (0.958)	118857	20.0000	21.2874	
110 Hexachlorobenzene	284	9.234	9.234 (0.974)	118914	20.0000	21.5394	
113 Pentachlorophenol	266	9.372	9.372 (0.988)	38740	20.0000	20.8676	
118 Phenanthrene	178	9.505	9.505 (1.002)	670763	20.0000	21.7238	
122 Anthracene	178	9.542	9.542 (1.006)	650998	20.0000	21.6524	
123 Carbazole	167	9.664	9.664 (1.019)	594818	20.0000	20.7838	
125 Di-n-butyl phthalate	149	9.893	9.893 (1.043)	658770	20.0000	20.2210	
130 Fluoranthene	202	10.483	10.483 (1.105)	723859	20.0000	20.8202	
131 Benzidine	184	10.562	10.562 (0.901)	78229	20.0000	21.6993	
132 Pyrene	202	10.679	10.679 (0.911)	751465	20.0000	21.8142	
137 Butyl benzyl phthalate	149	11.131	11.131 (0.950)	264059	20.0000	18.9108	
140 3,3'-Dichlorobenzidine	252	11.646	11.646 (0.994)	201625	20.0000	18.5038	
141 Benzo(a)anthracene	228	11.700	11.700 (0.998)	690481	20.0000	21.1345	
144 Chrysene	228	11.747	11.747 (1.002)	690874	20.0000	21.6416	
143 Bis(2-ethylhexyl) phthalate	149	11.588	11.588 (0.989)	364276	20.0000	19.3026	
146 Di-n-octyl phthalate	149	12.173	12.173 (1.039)	620660	20.0000	19.5308 (H)	
147 Benzo(b)fluoranthene	252	12.890	12.890 (0.960)	676359	20.0000	21.4963 (H)	
148 Benzo(k)fluoranthene	252	12.917	12.917 (0.962)	659703	20.0000	19.8657	
150 Benzo(a)pyrene	252	13.342	13.342 (0.994)	571593	20.0000	20.1780	
155 Indeno(1,2,3-cd)pyrene	276	15.228	15.228 (1.135)	676628	20.0000	20.5877	
156 Dibenz(a,h)anthracene	278	15.212	15.212 (1.133)	579963	20.0000	20.7118	
157 Benzo(g,h,i)perylene	276	15.786	15.786 (1.176)	593742	20.0000	20.8385	
168 Methyl Styrene	118	5.120	5.120 (0.954)	275563	20.0000	21.0505	
202 Alachlor	188	9.802	9.802 (1.034)	68982	20.0000	17.9401	
204 Atrazine	200	9.207	9.207 (0.971)	14820	20.0000	40.0430 (Q)	
205 Caprolactam	55	6.970	6.970 (1.059)	43705	20.0000	19.7988	
207 2,3-Dichlorobenzeneamine	161	7.570	7.570 (0.918)	226442	20.0000	20.8232	
206 Decane	43	5.163	5.163 (0.962)	184907	20.0000	20.9954	
213 n-Dodecane	43	6.476	6.476 (0.785)	176569	20.0000	20.3838	
210 Tetradecane	43	7.602	7.602 (0.921)	173422	20.0000	20.8086	
209 Hexadecane	57	8.506	8.506 (1.031)	238009	20.0000	20.8775	
208 n-Octadecane	85	9.250	9.250 (0.975)	133921	20.0000	20.9810	
211 n-Eicosane	43	9.903	9.903 (1.200)	149957	20.0000	20.4022	
212 n-docosane	43	10.504	10.504 (1.273)	115309	20.0000	20.2563	

QC Flag Legend

Q - Qualifier signal failed the ratio test.  
 H - Operator selected an alternate compound hit.

STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2096.d  
 Lab Smp Id: HSL 0020  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kidd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

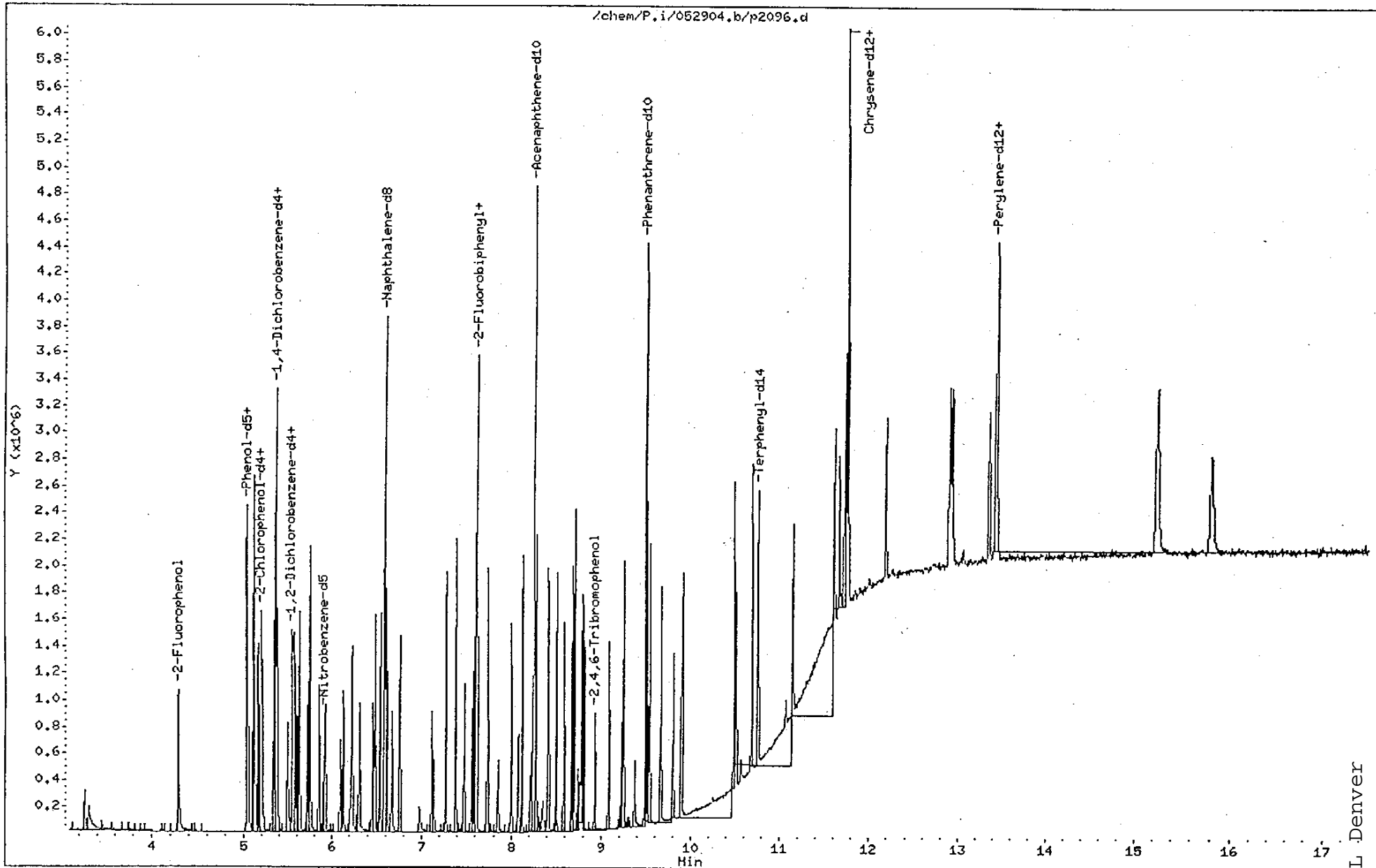
Calibration Date: 29-MAY-2004  
 Calibration Time: 11:58  
 Client Smp ID: HSL\_0020  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	278713	139356	557426	388655	39.45
49 Naphthalene-d8	1059542	529771	2119084	1429198	34.89
83 Acenaphthene-d10	593021	296510	1186042	781884	31.85
117 Phenanthrene-d10	1037755	518878	2075510	1348390	29.93
142 Chrysene-d12	1004679	502340	2009358	1386557	38.01
151 Perylene-d12	875814	437907	1751628	1173819	34.03

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	0.02
49 Naphthalene-d8	6.58	6.08	7.08	6.58	0.02
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	0.01
117 Phenanthrene-d10	9.48	8.98	9.98	9.48	0.07
142 Chrysene-d12	11.68	11.18	12.18	11.72	0.33
151 Perylene-d12	13.38	12.88	13.88	13.42	0.33

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.



*MW*  
*06-03-04*

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2097.d  
 Lab Smp Id: HSL\_0050 Client Smp ID: HSL\_0050  
 Inj Date : 29-MAY-2004 13:44  
 Operator : kiddd Inst ID: P.i  
 Smp Info : HSL\_0050,BNA1509,P:043004,E:053104  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 08:31 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 17:15 Cal File: p2105.d  
 Als bottle: 12 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 1-HSL.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 22 1,4-Dichlorobenzene-d4		152	5.364	5.364	(1.000)	310327	40.0000	
* 49 Naphthalene-d8		136	6.581	6.581	(1.000)	1139775	40.0000	
* 83 Acenaphthene-d10		164	8.249	8.249	(1.000)	611492	40.0000	
* 117 Phenanthrene-d10		188	9.482	9.482	(1.000)	1069304	40.0000	
* 142 Chrysene-d12		240	11.704	11.704	(1.000)	1104152	40.0000	
* 151 Perylene-d12		264	13.399	13.399	(1.000)	1008650	40.0000	
\$ 36 Nitrobenzene-d5		82	5.906	5.906	(1.101)	482207	50.0000	50.5983
\$ 70 2-Fluorobiphenyl		172	7.612	7.612	(0.923)	989509	50.0000	50.8466
\$ 133 Terphenyl-d14		244	10.736	10.736	(0.917)	844499	50.0000	52.7928
\$ 10 2-Fluorophenol		112	4.285	4.285	(0.799)	689541	75.0000	75.7973
\$ 14 Phenol-d5		99	5.034	5.034	(0.939)	826578	75.0000	75.9686
\$ 103 2,4,6-Tribromophenol		330	8.930	8.930	(0.942)	117342	75.0000	75.1362
\$ 163 1,2-Dichlorobenzene-d4		152	5.544	5.544	(1.034)	330320	50.0000	50.0371
\$ 162 2-Chlorophenol-d4		132	5.199	5.199	(0.969)	703824	75.0000	75.4788
5 Pyridine		79	3.291	3.291	(0.614)	424541	50.0000	54.0703



Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
4 N-Nitrosodimethylamine	74	3.259	3.259	(0.608)	272731	50.0000	50.4581
16 Aniline	93	5.103	5.103	(0.951)	517440	50.0000	50.5266
15 Phenol	94	5.045	5.045	(0.941)	590020	50.0000	51.2962
18 Bis(2-chloroethyl) ether	93	5.124	5.124	(0.955)	568736	50.0000	48.6882
20 2-Chlorophenol	128	5.209	5.209	(0.971)	491247	50.0000	50.5055
21 1,3-Dichlorobenzene	146	5.337	5.337	(0.995)	533398	50.0000	50.0971
23 1,4-Dichlorobenzene	146	5.380	5.380	(1.003)	546113	50.0000	50.0496
24 Benzyl alcohol	108	5.491	5.491	(1.024)	285268	50.0000	51.0591
25 1,2-Dichlorobenzene	146	5.560	5.560	(1.037)	506814	50.0000	50.1505
26 2-Methylphenol	108	5.587	5.587	(1.042)	438334	50.0000	51.3493
27 1H-Indene	116	5.629	5.629	(1.050)	829135	50.0000	50.4328
28 2,2'-oxybis(1-chloropropane)	45	5.613	5.613	(1.047)	420077	50.0000	50.3384
29 4-Methylphenol	108	5.714	5.714	(1.065)	443361	50.0000	50.6221
30 N-nitrosodi-n-propylamine	70	5.746	5.746	(1.071)	320623	50.0000	51.2053
32 Acetophenone	105	5.746	5.746	(1.071)	658344	50.0000	51.4217
33 Hexachloroethane	117	5.847	5.847	(1.090)	215282	50.0000	49.5167
37 Nitrobenzene	77	5.922	5.922	(1.104)	498455	50.0000	52.0188
40 Isophorone	82	6.124	6.124	(0.931)	804503	50.0000	50.4310
41 2-Nitrophenol	139	6.225	6.225	(0.946)	223861	50.0000	50.3306
42 2,4-Dimethylphenol	107	6.219	6.219	(0.945)	456580	50.0000	49.7776
43 Bis(2-chloroethoxy)methane	93	6.304	6.304	(0.958)	503637	50.0000	50.5374
45 Benzoic acid	122	6.294	6.294	(0.956)	171612	50.0000	39.4398
46 2,4-Dichlorophenol	162	6.448	6.448	(0.980)	365286	50.0000	49.7886
47 1,2,4-Trichlorobenzene	180	6.527	6.527	(0.992)	430098	50.0000	49.9766
50 Naphthalene	128	6.602	6.602	(1.003)	1424022	50.0000	50.8034
51 4-Chloroaniline	127	6.660	6.660	(1.012)	518083	50.0000	52.4830
52 Hexachlorobutadiene	225	6.745	6.745	(1.025)	244421	50.0000	49.2495
59 4-Chloro-3-methylphenol	107	7.107	7.107	(1.080)	392951	50.0000	52.1543
62 2-Methylnaphthalene	142	7.266	7.266	(1.104)	842431	50.0000	50.1346
64 1-Methylnaphthalene	142	7.372	7.372	(1.120)	858281	50.0000	50.7699
63 Hexachlorocyclopentadiene	237	7.468	7.468	(0.905)	266662	50.0000	49.6031
67 2,4,6-Trichlorophenol	196	7.553	7.553	(0.916)	236131	50.0000	49.1394
68 2,4,5-Trichlorophenol	196	7.601	7.601	(0.921)	251803	50.0000	49.7811
71 2-Chloronaphthalene	162	7.729	7.729	(0.937)	816118	50.0000	50.0923
74 2-Nitroaniline	65	7.851	7.851	(0.952)	193551	50.0000	47.7807
76 Dimethyl phthalate	163	7.994	7.994	(0.969)	857697	50.0000	50.6779
79 2,6-Dinitrotoluene	165	8.079	8.079	(0.979)	156940	50.0000	47.0659
81 Acenaphthylene	152	8.122	8.122	(0.985)	1339181	50.0000	51.1816
82 3-Nitroaniline	138	8.217	8.217	(0.996)	173056	50.0000	47.1127
84 Acenaphthene	153	8.281	8.281	(1.004)	833482	50.0000	50.1080
85 2,4-Dinitrophenol	184	8.302	8.302	(1.006)	65196	50.0000	47.5094
86 4-Nitrophenol	109	8.350	8.350	(1.012)	105140	50.0000	45.2828
87 2,4-Dinitrotoluene	165	8.425	8.425	(1.021)	219080	50.0000	48.8370
88 Dibenzofuran	168	8.414	8.414	(1.020)	1158108	50.0000	50.7866
93 Diethyl phthalate	149	8.595	8.595	(1.042)	879803	50.0000	50.6020
95 4-Chlorophenyl phenyl ether	204	8.680	8.680	(1.052)	463862	50.0000	49.6973
96 Fluorene	166	8.706	8.706	(1.055)	903253	50.0000	51.2216

Compounds	QUANT SIG			AMOUNTS		
	MASS	RT	EXP RT REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
97 4-Nitroaniline	138	8.749	8.749 (1.061)	159490	50.0000	45.5800
99 4,6-Dinitro-2-methylphenol	198	8.770	8.770 (1.063)	119764	50.0000	46.3001
101 N-nitrosodiphenylamine	169	8.781	8.781 (1.064)	611627	50.0000	50.4059
102 Azobenzene	77	8.807	8.807 (1.068)	880246	50.0000	51.2571
108 4-Bromophenyl phenyl ether	248	9.084	9.084 (0.958)	225585	50.0000	50.9474
110 Hexachlorobenzene	284	9.232	9.232 (0.974)	216081	50.0000	49.3550
113 Pentachlorophenol	266	9.371	9.371 (0.988)	96565	50.0000	44.8620
118 Phenanthrene	178	9.504	9.504 (1.002)	1241526	50.0000	50.7032
122 Anthracene	178	9.541	9.541 (1.006)	1216534	50.0000	51.0228
123 Carbazole	167	9.658	9.658 (1.018)	1155980	50.0000	50.9338
125 Di-n-butyl phthalate	149	9.886	9.886 (1.043)	1350731	50.0000	52.2821
130 Fluoranthene	202	10.476	10.476 (1.105)	1396841	50.0000	50.6632
131 Benzidine	184	10.550	10.550 (0.901)	126873	50.0000	44.1932
132 Pyrene	202	10.667	10.667 (0.911)	1448700	50.0000	52.8102
137 Butyl benzyl phthalate	149	11.119	11.119 (0.950)	566011	50.0000	50.9028
140 3,3'-Dichlorobenzidine	252	11.629	11.629 (0.994)	436789	50.0000	50.3382
141 Benzo(a)anthracene	228	11.682	11.682 (0.998)	1344310	50.0000	51.6712
144 Chrysene	228	11.725	11.725 (1.002)	1307094	50.0000	51.4169
143 Bis(2-ethylhexyl) phthalate	149	11.571	11.571 (0.989)	815682	50.0000	49.9615
146 Di-n-octyl phthalate	149	12.150	12.150 (1.038)	1443318	50.0000	49.0777 (H)
147 Benzo(b)fluoranthene	252	12.868	12.868 (0.960)	1362747	50.0000	50.4037 (H)
148 Benzo(k)fluoranthene	252	12.899	12.899 (0.963)	1390806	50.0000	48.7398
150 Benzo(a)pyrene	252	13.319	13.319 (0.994)	1241296	50.0000	50.9950
155 Indeno(1,2,3-cd)pyrene	276	15.206	15.206 (1.135)	1585328	50.0000	56.1356
156 Dibenz(a,h)anthracene	278	15.190	15.190 (1.134)	1343139	50.0000	55.8211
157 Benzo(g,h,i)perylene	276	15.769	15.769 (1.177)	1422801	50.0000	58.1129
168 Methyl Styrene	118	5.124	5.124 (0.955)	527217	50.0000	50.4400
202 Alachlor	188	9.796	9.796 (1.033)	157117	50.0000	51.5260
204 Atrazine	200	9.206	9.206 (0.971)	27202	50.0000	92.6817 (Q)
205 Caprolactam	55	6.974	6.974 (1.060)	103515	50.0000	47.1947
207 2,3-Dichlorobenzeneamine	161	7.569	7.569 (0.918)	423489	50.0000	49.7949
206 Decane	43	5.162	5.162 (0.962)	354196	50.0000	50.3685
213 n-Dodecane	43	6.474	6.474 (0.785)	336302	50.0000	49.6423
210 Tetradecane	43	7.601	7.601 (0.921)	326613	50.0000	50.1098
209 Hexadecane	57	8.504	8.504 (1.031)	447163	50.0000	50.1536
208 n-Octadecane	85	9.248	9.248 (0.975)	253418	50.0000	50.0646
211 n-Eicosane	43	9.897	9.897 (1.200)	294929	50.0000	51.3073
212 n-docosane	43	10.492	10.492 (1.272)	226947	50.0000	50.9768

QC Flag Legend

Q - Qualifier signal failed the ratio test.  
 H - Operator selected an alternate compound hit.

STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2097.d  
 Lab Smp Id: HSL 0050  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kiddd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 11:58  
 Client Smp ID: HSL\_0050  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

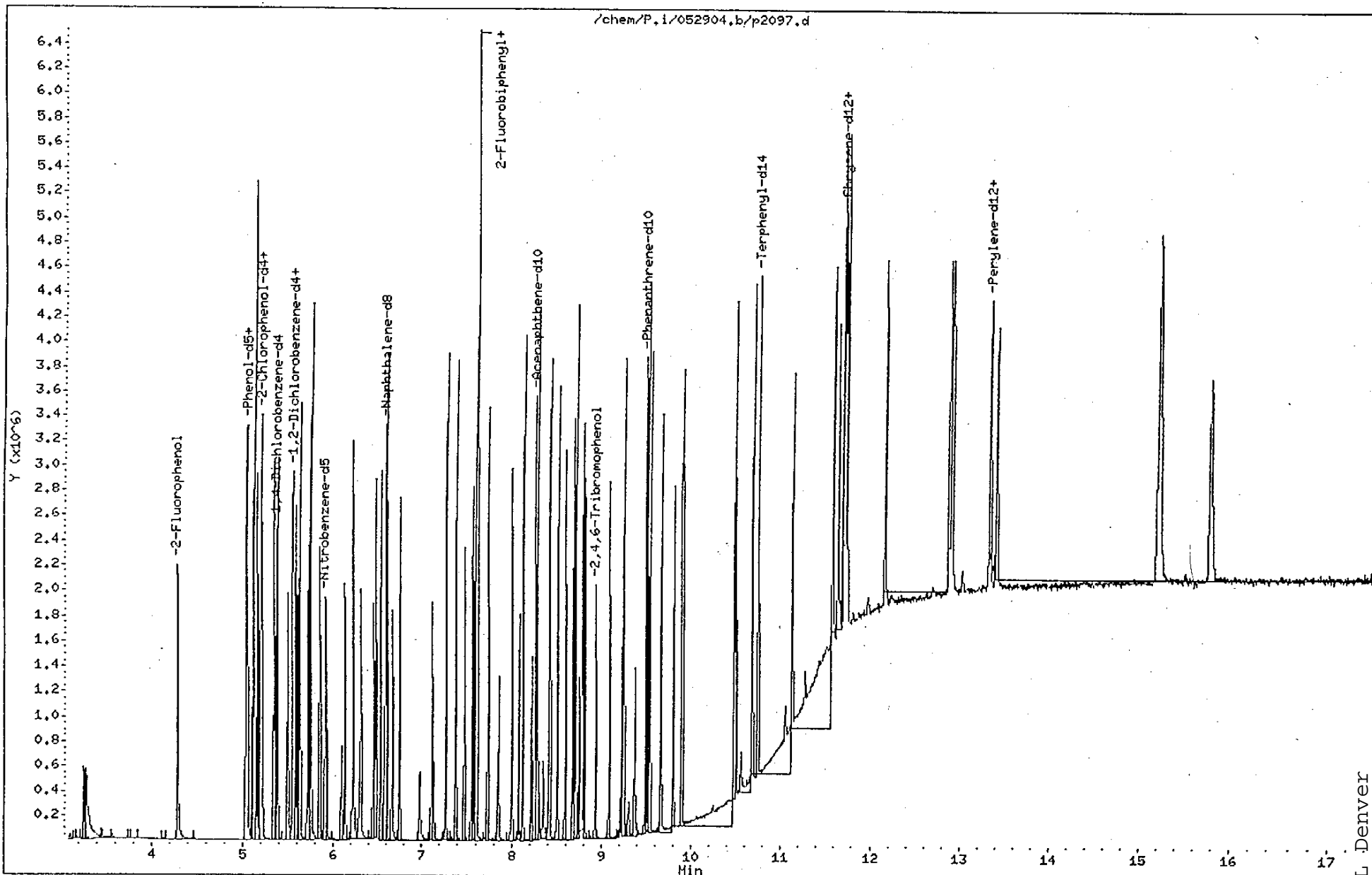
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	278713	139356	557426	310327	11.34
49 Naphthalene-d8	1059542	529771	2119084	1139775	7.57
83 Acenaphthene-d10	593021	296510	1186042	611492	3.11
117 Phenanthrene-d10	1037755	518878	2075510	1069304	3.04
142 Chrysene-d12	1004679	502340	2009358	1104152	9.90
151 Perylene-d12	875814	437907	1751628	1008650	15.17

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	0.00
49 Naphthalene-d8	6.58	6.08	7.08	6.58	0.00
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	0.00
117 Phenanthrene-d10	9.48	8.98	9.98	9.48	0.05
142 Chrysene-d12	11.68	11.18	12.18	11.70	0.18
151 Perylene-d12	13.38	12.88	13.88	13.40	0.16

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.

Data File: /chem/P.i/052904.b/p2097.d  
Date : 29-MAY-2004 13:44  
Client ID: HSL\_0050  
Sample Info: HSL\_0050,BNA1509,P:043004,E:053104  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

Instrument: P.i  
Operator: kiddd  
Column diameter: 0.25



*MLK*  
*06-03-04*

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2098.d  
 Lab Smp Id: HSL\_0120 Client Smp ID: HSL\_0120  
 Inj Date : 29-MAY-2004 14:11  
 Operator : kiddd Inst ID: P.i  
 Smp Info : HSL\_0120,BNA1509,P:043004,E:053104  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 08:31 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 17:41 Cal File: p2106.d  
 Als bottle: 14 Calibration Sample, Level: 6  
 Dil Factor: 1.00000 Compound Sublist: 1-HSL.sub  
 Integrator: HP RTE  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
* 22 1,4-Dichlorobenzene-d4	152	5.364	5.364	(1.000)	360124	40.0000	
* 49 Naphthalene-d8	136	6.581	6.581	(1.000)	1303087	40.0000	
* 83 Acenaphthene-d10	164	8.249	8.249	(1.000)	684250	40.0000	
* 117 Phenanthrene-d10	188	9.482	9.482	(1.000)	1188667	40.0000	
* 142 Chrysene-d12	240	11.709	11.709	(1.000)	1256441	40.0000	
* 151 Perylene-d12	264	13.410	13.410	(1.000)	1091963	40.0000	
\$ 36 Nitrobenzene-d5	82	5.906	5.906	(1.101)	1350630	120.000	122.101
\$ 70 2-Fluorobiphenyl	172	7.612	7.612	(0.923)	2546641	120.000	116.946
\$ 133 Terphenyl-d14	244	10.742	10.742	(0.917)	2132209	120.000	117.136
\$ 10 2-Fluorophenol	112	4.285	4.285	(0.799)	1891697	180.000	179.190
\$ 14 Phenol-d5	99	5.034	5.034	(0.939)	2244847	180.000	177.789
\$ 103 2,4,6-Tribromophenol	330	8.930	8.930	(0.942)	334914	180.000	192.917
\$ 163 1,2-Dichlorobenzene-d4	152	5.544	5.544	(1.034)	885177	120.000	115.546
\$ 162 2-Chlorophenol-d4	132	5.199	5.199	(0.969)	1928340	180.000	178.202
5 Pyridine	79	3.286	3.286	(0.613)	1065398	120.000	116.928

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
4 N-Nitrosodimethylamine	74	3.259	3.259	(0.608)	757682	120.000	120.796
16 Aniline	93	5.109	5.109	(0.952)	970782	120.000	116.229(MH)
15 Phenol	94	5.050	5.050	(0.942)	1583741	120.000	118.651
18 Bis(2-chloroethyl) ether	93	5.125	5.125	(0.955)	1740924	120.000	128.428(M)
20 2-Chlorophenol	128	5.210	5.210	(0.971)	1316738	120.000	116.656
21 1,3-Dichlorobenzene	146	5.337	5.337	(0.995)	1426716	120.000	115.469
23 1,4-Dichlorobenzene	146	5.380	5.380	(1.003)	1463334	120.000	115.566
24 Benzyl alcohol	108	5.491	5.491	(1.024)	812673	120.000	125.344
25 1,2-Dichlorobenzene	146	5.560	5.560	(1.037)	1353270	120.000	115.393
26 2-Methylphenol	108	5.587	5.587	(1.042)	1167001	120.000	117.806
27 1H-Indene	116	5.629	5.629	(1.050)	2210149	120.000	115.845
28 2,2'-oxybis(1-chloropropane)	45	5.613	5.613	(1.047)	1116670	120.000	115.309
29 4-Methylphenol	108	5.714	5.714	(1.065)	1222124	120.000	120.244
30 N-nitrosodi-n-propylamine	70	5.746	5.746	(1.071)	871854	120.000	119.986
32 Acetophenone	105	5.746	5.746	(1.071)	1757057	120.000	118.262
33 Hexachloroethane	117	5.847	5.847	(1.090)	602027	120.000	119.324
37 Nitrobenzene	77	5.922	5.922	(1.104)	1313597	120.000	118.131
40 Isophorone	82	6.129	6.129	(0.931)	2238308	120.000	122.726
41 2-Nitrophenol	139	6.225	6.225	(0.946)	632718	120.000	124.425
42 2,4-Dimethylphenol	107	6.219	6.219	(0.945)	1245314	120.000	118.752
43 Bis(2-chloroethoxy)methane	93	6.304	6.304	(0.958)	1344306	120.000	117.988
45 Benzoic acid	122	6.310	6.310	(0.959)	618931	120.000	124.416
46 2,4-Dichlorophenol	162	6.448	6.448	(0.980)	1016138	120.000	121.142
47 1,2,4-Trichlorobenzene	180	6.528	6.528	(0.992)	1138639	120.000	115.726
50 Naphthalene	128	6.602	6.602	(1.003)	3668824	120.000	114.485
51 4-Chloroaniline	127	6.660	6.660	(1.012)	1325458	120.000	117.444
52 Hexachlorobutadiene	225	6.745	6.745	(1.025)	665258	120.000	117.246
59 4-Chloro-3-methylphenol	107	7.107	7.107	(1.080)	1071733	120.000	124.418
62 2-Methylnaphthalene	142	7.266	7.266	(1.104)	2216372	120.000	115.370
64 1-Methylnaphthalene	142	7.378	7.378	(1.121)	2225993	120.000	115.172
63 Hexachlorocyclopentadiene	237	7.468	7.468	(0.905)	785811	120.000	130.630
67 2,4,6-Trichlorophenol	196	7.553	7.553	(0.916)	671768	120.000	124.931
68 2,4,5-Trichlorophenol	196	7.601	7.601	(0.921)	706317	120.000	124.790
71 2-Chloronaphthalene	162	7.734	7.734	(0.938)	2139944	120.000	117.381
74 2-Nitroaniline	65	7.851	7.851	(0.952)	579606	120.000	120.076
76 Dimethyl phthalate	163	7.994	7.994	(0.969)	2239583	120.000	118.257
79 2,6-Dinitrotoluene	165	8.079	8.079	(0.979)	471931	120.000	119.455
81 Acenaphthylene	152	8.122	8.122	(0.985)	3466717	120.000	118.405
82 3-Nitroaniline	138	8.217	8.217	(0.996)	522436	120.000	118.685
84 Acenaphthene	153	8.281	8.281	(1.004)	2143325	120.000	115.153
85 2,4-Dinitrophenol	184	8.303	8.303	(1.006)	246846	120.000	119.751
86 4-Nitrophenol	109	8.345	8.345	(1.012)	361279	120.000	117.151
87 2,4-Dinitrotoluene	165	8.425	8.425	(1.021)	624269	120.000	117.519
88 Dibenzofuran	168	8.414	8.414	(1.020)	2945163	120.000	115.421
93 Diethyl phthalate	149	8.595	8.595	(1.042)	2292060	120.000	117.810
95 4-Chlorophenyl phenyl ether	204	8.680	8.680	(1.052)	1203759	120.000	115.255
96 Fluorene	166	8.712	8.712	(1.056)	2277143	120.000	115.401

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
97 4-Nitroaniline	138	8.754	8.754	(1.061)	510300	120.000	119.527
99 4,6-Dinitro-2-methylphenol	198	8.770	8.770	(1.063)	383406	120.000	115.610
101 N-nitrosodiphenylamine	169	8.781	8.781	(1.064)	1582608	120.000	116.558
102 Azobenzene	77	8.813	8.813	(1.068)	2260436	120.000	117.630
108 4-Bromophenyl phenyl ether	248	9.084	9.084	(0.958)	583318	120.000	118.511
110 Hexachlorobenzene	284	9.233	9.233	(0.974)	568193	120.000	116.749
113 Pentachlorophenol	266	9.371	9.371	(0.988)	324144	120.000	115.934
118 Phenanthrene	178	9.504	9.504	(1.002)	3133111	120.000	115.106
122 Anthracene	178	9.541	9.541	(1.006)	3056388	120.000	115.316
123 Carbazole	167	9.663	9.663	(1.019)	2957032	120.000	117.207
125 Di-n-butyl phthalate	149	9.886	9.886	(1.043)	3544794	120.000	123.429
130 Fluoranthene	202	10.476	10.476	(1.105)	3587593	120.000	117.055
131 Benzidine	184	10.551	10.551	(0.901)	346396	120.000	106.034
132 Pyrene	202	10.673	10.673	(0.911)	3731740	120.000	119.547
137 Butyl benzyl phthalate	149	11.124	11.124	(0.950)	1638690	120.000	129.509
140 3,3'-Dichlorobenzidine	252	11.640	11.640	(0.994)	1236435	120.000	125.223
141 Benzo(a)anthracene	228	11.693	11.693	(0.999)	3500619	120.000	118.244
144 Chrysene	228	11.736	11.736	(1.002)	3335371	120.000	115.300
143 Bis(2-ethylhexyl) phthalate	149	11.576	11.576	(0.989)	2333236	120.000	121.986
146 Di-n-octyl phthalate	149	12.161	12.161	(1.039)	4201873	120.000	119.102 (H)
147 Benzo(b)fluoranthene	252	12.884	12.884	(0.961)	3496972	120.000	119.474 (H)
148 Benzo(k)fluoranthene	252	12.910	12.910	(0.963)	3669540	120.000	118.785
150 Benzo(a)pyrene	252	13.335	13.335	(0.994)	3158184	120.000	119.846
155 Indeno(1,2,3-cd)pyrene	276	15.227	15.227	(1.136)	3697950	120.000	120.952
156 Dibenz(a,h)anthracene	278	15.211	15.211	(1.134)	3121734	120.000	119.841
157 Benzo(g,h,i)perylene	276	15.791	15.791	(1.178)	3152039	120.000	118.919
168 Methyl Styrene	118	5.125	5.125	(0.955)	1412654	120.000	116.463
202 Alachlor	188	9.801	9.801	(1.034)	427669	120.000	126.169
204 Atrazine	200	9.211	9.211	(0.971)	19643	120.000	60.2063
205 Caprolactam	55	6.985	6.985	(1.061)	324997	120.000	119.315
207 2,3-Dichlorobenzeneamine	161	7.569	7.569	(0.918)	1125930	120.000	118.312
206 Decane	43	5.162	5.162	(0.962)	943269	120.000	115.589
213 n-Dodecane	43	6.474	6.474	(0.785)	899224	120.000	118.622
210 Tetradecane	43	7.601	7.601	(0.921)	868792	120.000	119.119
209 Hexadecane	57	8.504	8.504	(1.031)	1175253	120.000	117.800
208 n-Octadecane	85	9.248	9.248	(0.975)	663643	120.000	117.942
211 n-Eicosane	43	9.902	9.902	(1.200)	749696	120.000	116.553
212 n-docosane	43	10.497	10.497	(1.272)	595076	120.000	119.451

QC Flag Legend

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

STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2098.d  
 Lab Smp Id: HSL 0120  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kidd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 11:58  
 Client Smp ID: HSL\_0120  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	278713	139356	557426	360124	29.21
49 Naphthalene-d8	1059542	529771	2119084	1303087	22.99
83 Acenaphthene-d10	593021	296510	1186042	684250	15.38
117 Phenanthrene-d10	1037755	518878	2075510	1188667	14.54
142 Chrysene-d12	1004679	502340	2009358	1256441	25.06
151 Perylene-d12	875814	437907	1751628	1091963	24.68

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	0.00
49 Naphthalene-d8	6.58	6.08	7.08	6.58	0.00
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	0.00
117 Phenanthrene-d10	9.48	8.98	9.98	9.48	0.05
142 Chrysene-d12	11.68	11.18	12.18	11.71	0.23
151 Perylene-d12	13.38	12.88	13.88	13.41	0.24

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.



Data File: /chem/P.i/052904.b/p2098.d

Date : 29-MAY-2004 14:11

Client ID: HSL\_0120

Sample Info: HSL\_0120,BNA1509,P:043004,E:053104

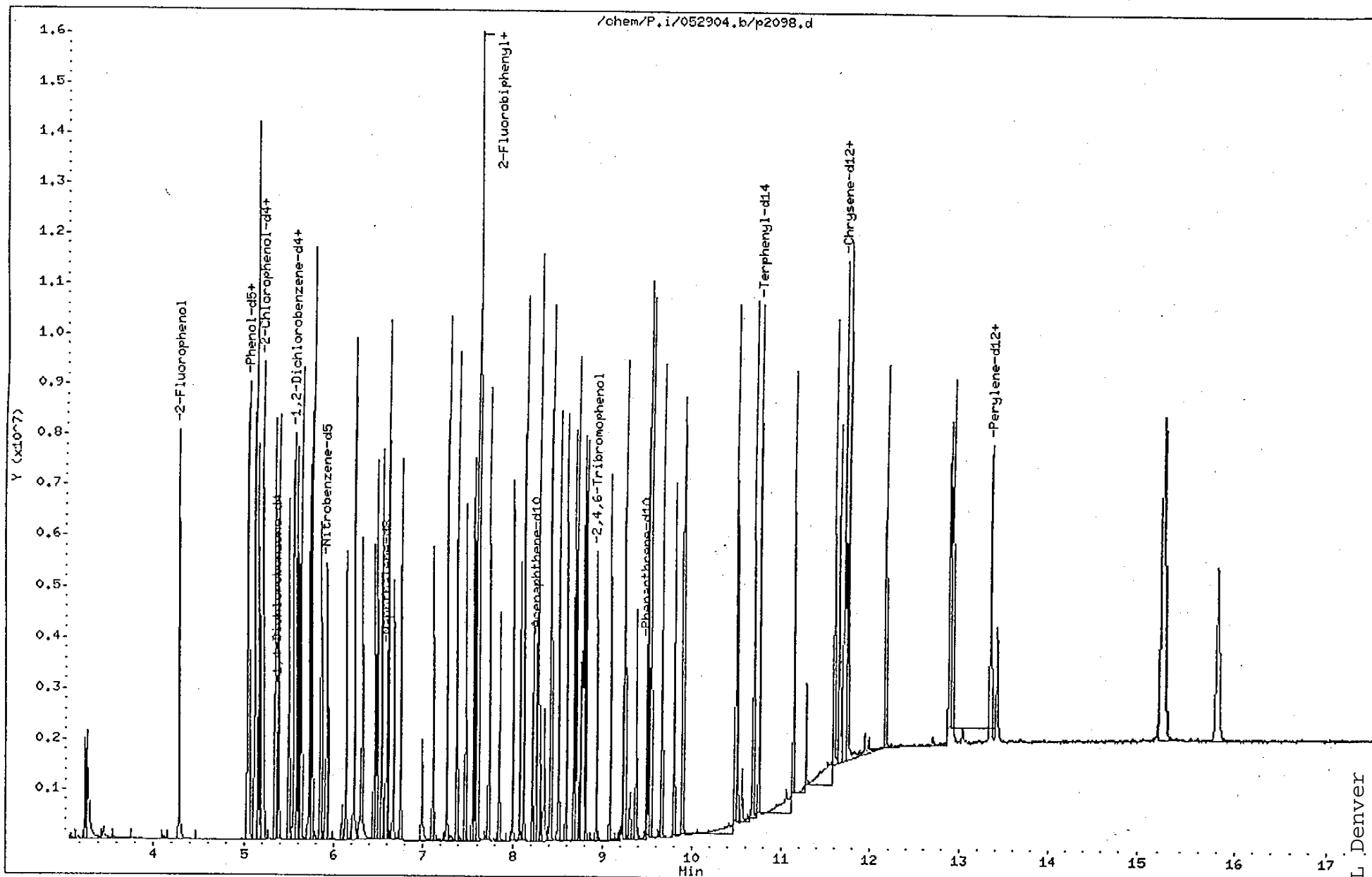
Volume Injected (uL): 0.5

Column phase: Rtx-5ms 30m 0.5um

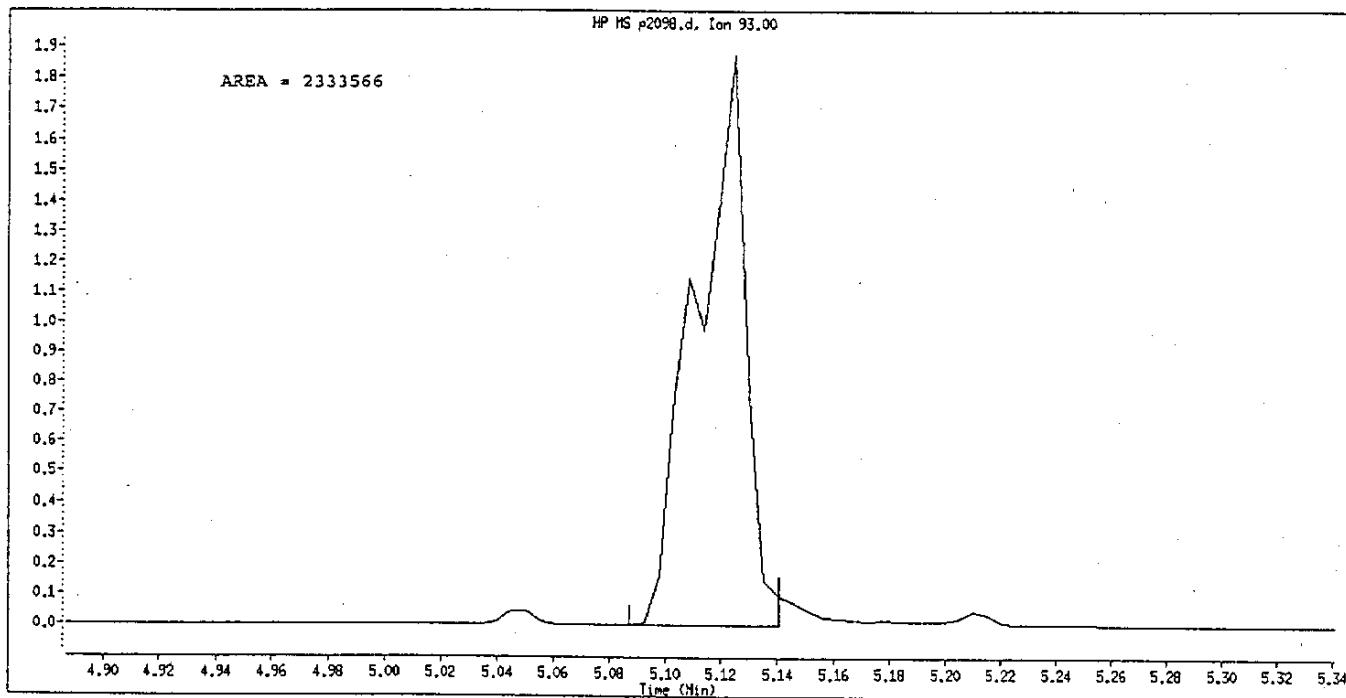
Instrument: P.i

Operator: kidd

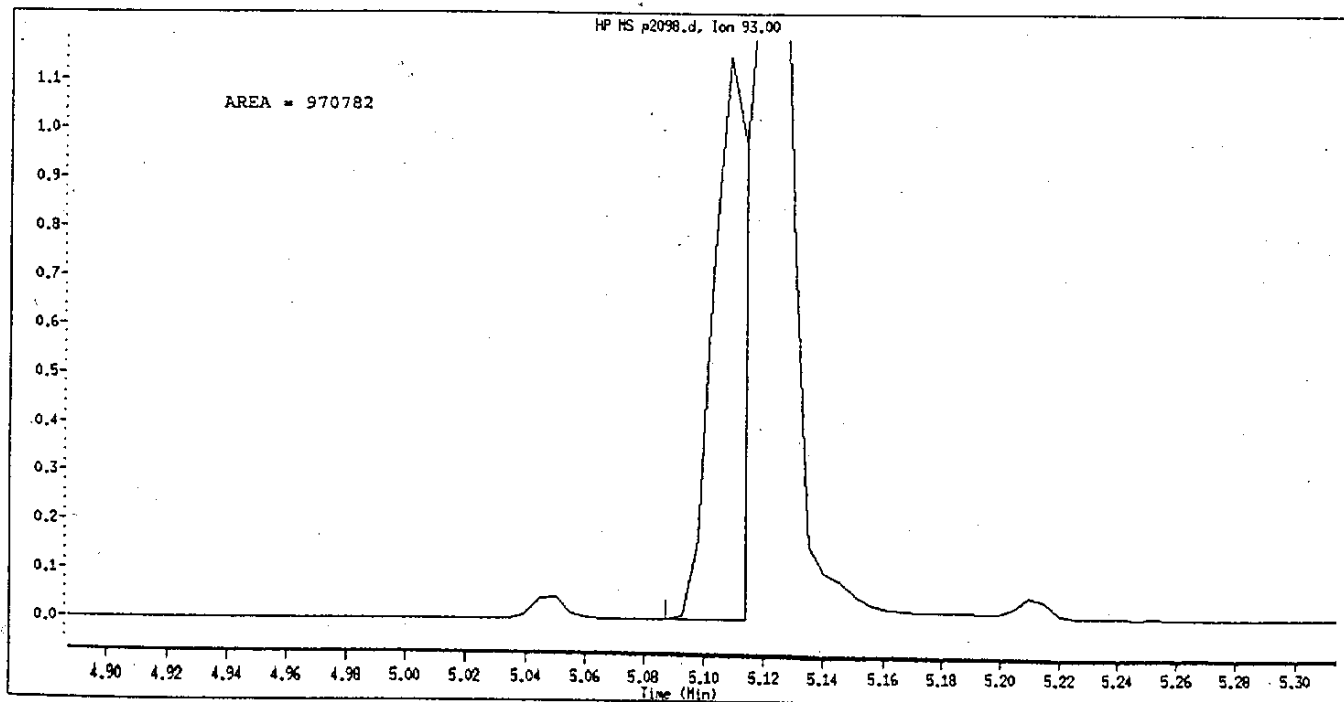
Column diameter: 0.25



Data File Name: p2098.d  
Inj. Date and Time: 29-MAY-2004 14:11  
Instrument ID: P.i  
Client ID: HSL\_0120  
Compound Name: Aniline  
CAS #: 62-53-3  
Report Date: 06/03/2004



Original Integration



Manual Integration

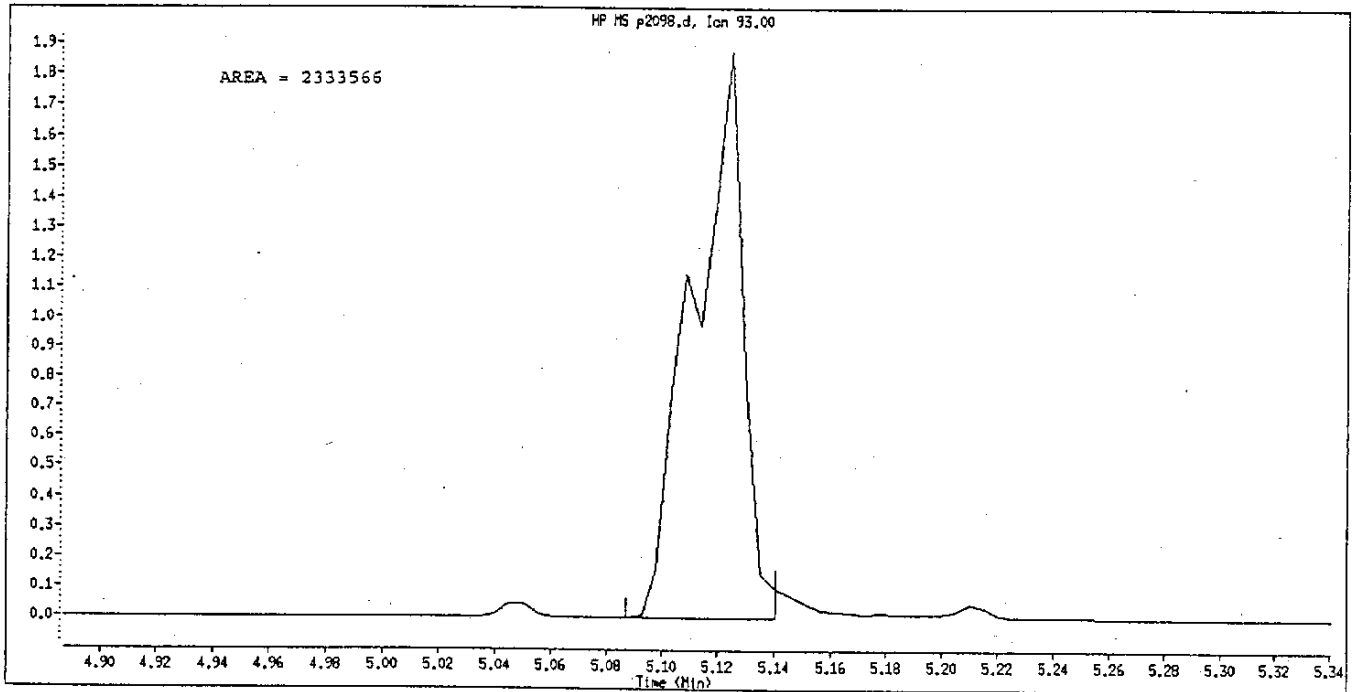
Manually Integrated By: Kidd

Manual Integration Reason: Target Peak Misintegrated (Extraneous Area Removed)

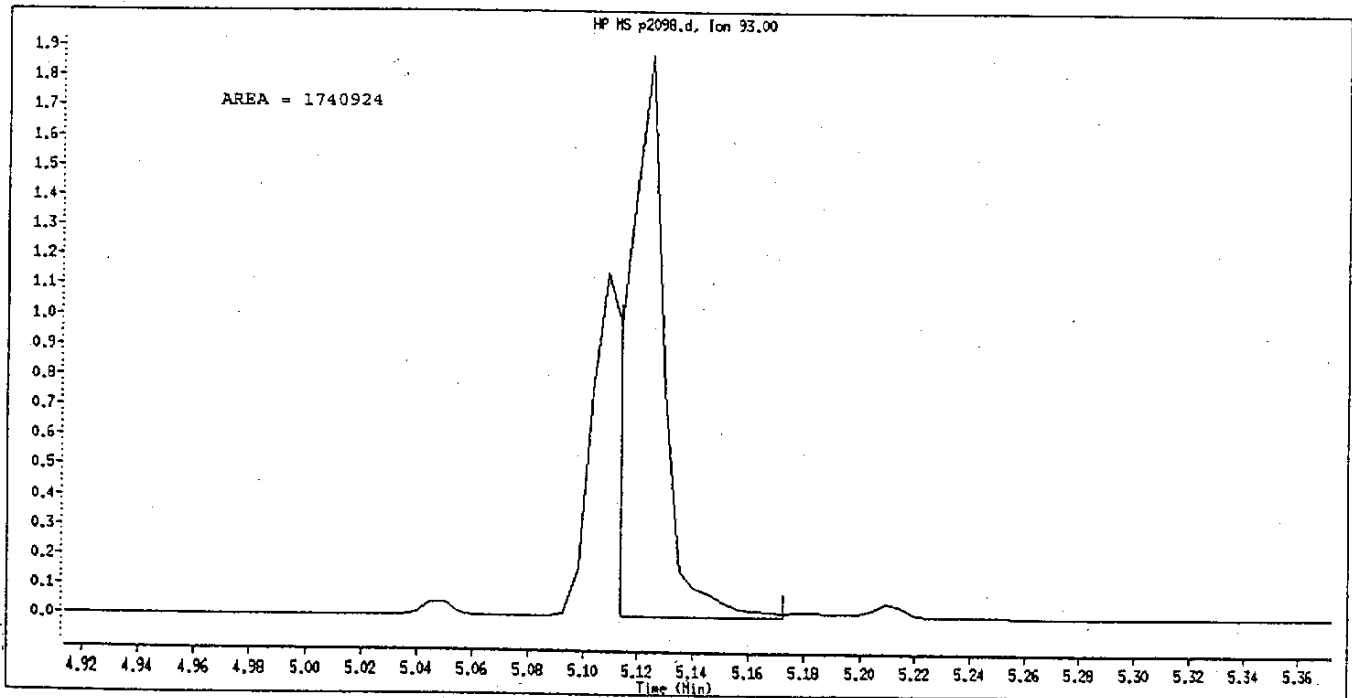
*MLW*  
*06-03-04*

*✓*  
*6.3.04 R/S*

Data File Name: p2098.d  
Inj. Date and Time: 29-MAY-2004 14:11  
Instrument ID: P.i  
Client ID: HSL\_0120  
Compound Name: Bis(2-chloroethyl) ether  
CAS #: 111-44-4  
Report Date: 06/03/2004



Original Integration



Manual Integration

Manually Integrated By: kidd

Manual Integration Reason: Target Peak Misintegrated (Extraneous Area Removed)

*Max*  
*06-01-04*  
*06-03-04*  
*✓ 10:31:04*  
*R/S*

*AK*  
06-03-04

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2099.d  
 Lab Smp Id: HSL\_0160 Client Smp ID: HSL\_0160  
 Inj Date : 29-MAY-2004 14:37  
 Operator : kiddd Inst ID: P.i  
 Smp Info : HSL\_0160,BNA1509,P:043004,E:053104  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 08:32 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 18:07 Cal File: p2107.d  
 Als bottle: 15 Calibration Sample, Level: 7  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 1-HSL.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 22 1,4-Dichlorobenzene-d4	152	5.364	5.364	(1.000)	328772	40.0000	
* 49 Naphthalene-d8	136	6.581	6.581	(1.000)	1182334	40.0000	
* 83 Acenaphthene-d10	164	8.250	8.250	(1.000)	620497	40.0000	
* 117 Phenanthrene-d10	188	9.488	9.488	(1.000)	1108003	40.0000	
* 142 Chrysene-d12	240	11.725	11.725	(1.000)	1339790	40.0000	
* 151 Perylene-d12	264	13.431	13.431	(1.000)	1138355	40.0000	
\$ 36 Nitrobenzene-d5	82	5.906	5.906	(1.101)	1645998	160.000	162.994
\$ 70 2-Fluorobiphenyl	172	7.612	7.612	(0.923)	3069163	160.000	155.422
\$ 133 Terphenyl-d14	244	10.753	10.753	(0.917)	2817405	160.000	145.150
\$ 10 2-Fluorophenol	112	4.285	4.285	(0.799)	2356897	240.000	244.545
\$ 14 Phenol-d5	99	5.035	5.035	(0.939)	2681497	240.000	232.623
\$ 103 2,4,6-Tribromophenol	330	8.930	8.930	(0.941)	421824	240.000	260.668
\$ 163 1,2-Dichlorobenzene-d4	152	5.545	5.545	(1.034)	1079881	160.000	154.404
\$ 162 2-Chlorophenol-d4	132	5.199	5.199	(0.969)	2312813	240.000	234.114
5 Pyridine	79	3.286	3.286	(0.613)	1283189	160.000	154.260

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
4 N-Nitrosodimethylamine	74	3.260	3.260	(0.608)	935720	160.000	163.406
16 Aniline	93	5.109	5.109	(0.952)	1045393	160.000	157.516 (M)
15 Phenol	94	5.051	5.051	(0.942)	1938638	160.000	159.089
18 Bis(2-chloroethyl) ether	93	5.125	5.125	(0.955)	1978003	160.000	159.832 (M)
20 2-Chlorophenol	128	5.210	5.210	(0.971)	1622392	160.000	157.441
21 1,3-Dichlorobenzene	146	5.338	5.338	(0.995)	1766536	160.000	156.606
23 1,4-Dichlorobenzene	146	5.380	5.380	(1.003)	1792073	160.000	155.024
24 Benzyl alcohol	108	5.492	5.492	(1.024)	981782	160.000	165.867
25 1,2-Dichlorobenzene	146	5.561	5.561	(1.037)	1660646	160.000	155.106
26 2-Methylphenol	108	5.587	5.587	(1.042)	1412275	160.000	156.161
27 1H-Indene	116	5.630	5.630	(1.050)	2696784	160.000	154.831
28 2,2'-oxybis(1-chloropropane)	45	5.614	5.614	(1.047)	1355971	160.000	153.372
29 4-Methylphenol	108	5.715	5.715	(1.065)	1493752	160.000	160.985
30 N-nitrosodi-n-propylamine	70	5.747	5.747	(1.071)	1054906	160.000	159.023
32 Acetophenone	105	5.747	5.747	(1.071)	2106545	160.000	155.306
33 Hexachloroethane	117	5.848	5.848	(1.090)	750960	160.000	163.037
37 Nitrobenzene	77	5.922	5.922	(1.104)	1609296	160.000	158.524
40 Isophorone	82	6.129	6.129	(0.931)	2700052	160.000	163.163
41 2-Nitrophenol	139	6.225	6.225	(0.946)	796729	160.000	172.680
42 2,4-Dimethylphenol	107	6.220	6.220	(0.945)	1530013	160.000	160.802
43 Bis(2-chloroethoxy)methane	93	6.305	6.305	(0.958)	1610998	160.000	155.836
45 Benzoic acid	122	6.315	6.315	(0.960)	797048	160.000	176.584
46 2,4-Dichlorophenol	162	6.448	6.448	(0.980)	1240333	160.000	162.972
47 1,2,4-Trichlorobenzene	180	6.528	6.528	(0.992)	1395250	160.000	156.290
50 Naphthalene	128	6.602	6.602	(1.003)	4408367	160.000	151.612
51 4-Chloroaniline	127	6.661	6.661	(1.012)	1574554	160.000	153.764
52 Hexachlorobutadiene	225	6.746	6.746	(1.025)	815571	160.000	158.418
59 4-Chloro-3-methylphenol	107	7.107	7.107	(1.080)	1295867	160.000	165.803
62 2-Methylnaphthalene	142	7.267	7.267	(1.104)	2675782	160.000	153.509
64 1-Methylnaphthalene	142	7.373	7.373	(1.120)	2701127	160.000	154.028
63 Hexachlorocyclopentadiene	237	7.469	7.469	(0.905)	971753	160.000	178.137
67 2,4,6-Trichlorophenol	196	7.554	7.554	(0.916)	832021	160.000	170.633
68 2,4,5-Trichlorophenol	196	7.601	7.601	(0.921)	866342	160.000	168.789
71 2-Chloronaphthalene	162	7.734	7.734	(0.938)	2577398	160.000	155.902
74 2-Nitroaniline	65	7.851	7.851	(0.952)	722425	160.000	163.300
76 Dimethyl phthalate	163	8.000	8.000	(0.970)	2747357	160.000	159.975
79 2,6-Dinitrotoluene	165	8.080	8.080	(0.979)	595672	160.000	164.636
81 Acenaphthylene	152	8.122	8.122	(0.985)	4164880	160.000	156.866
82 3-Nitroaniline	138	8.218	8.218	(0.996)	673955	160.000	166.742
84 Acenaphthene	153	8.282	8.282	(1.004)	2622479	160.000	155.372
85 2,4-Dinitrophenol	184	8.303	8.303	(1.006)	336716	160.000	161.898
86 4-Nitrophenol	109	8.345	8.345	(1.012)	478469	160.000	166.224
87 2,4-Dinitrotoluene	165	8.425	8.425	(1.021)	785663	160.000	161.382
88 Dibenzofuran	168	8.415	8.415	(1.020)	3530442	160.000	152.574
93 Diethyl phthalate	149	8.595	8.595	(1.042)	2844532	160.000	161.229
95 4-Chlorophenyl phenyl ether	204	8.680	8.680	(1.052)	1501649	160.000	158.549
96 Fluorene	166	8.712	8.712	(1.056)	2783401	160.000	155.550

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
97 4-Nitroaniline	138	8.755	8.755	(1.061)	639963	160.000	163.075
99 4,6-Dinitro-2-methylphenol	198	8.771	8.771	(1.063)	518376	160.000	167.922
101 N-nitrosodiphenylamine	169	8.787	8.787	(1.065)	1986268	160.000	161.318
102 Azobenzene	77	8.813	8.813	(1.068)	2783491	160.000	159.732
108 4-Bromophenyl phenyl ether	248	9.084	9.084	(0.957)	720287	160.000	156.992
110 Hexachlorobenzene	284	9.233	9.233	(0.973)	710661	160.000	156.653
113 Pentachlorophenol	266	9.371	9.371	(0.988)	442094	160.000	165.152
118 Phenanthrene	178	9.509	9.509	(1.002)	3912900	160.000	154.219
122 Anthracene	178	9.541	9.541	(1.006)	3876241	160.000	156.896
123 Carbazole	167	9.663	9.663	(1.018)	3739339	160.000	159.005
125 Di-n-butyl phthalate	149	9.892	9.892	(1.043)	4426642	160.000	165.356
130 Fluoranthene	202	10.487	10.487	(1.105)	4531539	160.000	158.618
131 Benzidine	184	10.562	10.562	(0.901)	571159	160.000	163.959
132 Pyrene	202	10.684	10.684	(0.911)	4755185	160.000	142.856
137 Butyl benzyl phthalate	149	11.136	11.136	(0.950)	2280560	160.000	169.025
140 3,3'-Dichlorobenzidine	252	11.656	11.656	(0.994)	1833227	160.000	174.114
141 Benzo(a)anthracene	228	11.709	11.709	(0.999)	4887046	160.000	154.806 (H)
144 Chrysene	228	11.752	11.752	(1.002)	4648814	160.000	150.707
143 Bis(2-ethylhexyl) phthalate	149	11.598	11.598	(0.989)	3327482	160.000	162.341 (H)
146 Di-n-octyl phthalate	149	12.182	12.182	(1.039)	6203173	160.000	163.298
147 Benzo(b)fluoranthene	252	12.905	12.905	(0.961)	4929250	160.000	161.544
148 Benzo(k)fluoranthene	252	12.932	12.932	(0.963)	5201153	160.000	161.502 (H)
150 Benzo(a)pyrene	252	13.357	13.357	(0.994)	4468652	160.000	162.664
155 Indeno(1,2,3-cd)pyrene	276	15.254	15.254	(1.136)	4663044	160.000	146.302
156 Dibenz(a,h)anthracene	278	15.238	15.238	(1.135)	4003433	160.000	147.426
157 Benzo(g,h,i)perylene	276	15.812	15.812	(1.177)	3835086	160.000	138.793
168 Methyl Styrene	118	5.120	5.120	(0.954)	1760196	160.000	158.954
202 Alachlor	188	9.802	9.802	(1.033)	570000	160.000	180.401
204 Atrazine	200	9.212	9.212	(0.971)	15303	160.000	50.3188 (Q)
205 Caprolactam	55	6.985	6.985	(1.061)	407174	160.000	162.508
207 2,3-Dichlorobenzeneamine	161	7.570	7.570	(0.918)	1377665	160.000	159.638
206 Decane	43	5.162	5.162	(0.962)	1163902	160.000	156.227
213 n-Dodecane	43	6.475	6.475	(0.785)	1093049	160.000	159.006
210 Tetradecane	43	7.607	7.607	(0.922)	1045117	160.000	158.018
209 Hexadecane	57	8.505	8.505	(1.031)	1424925	160.000	157.500
208 n-Octadecane	85	9.249	9.249	(0.975)	822523	160.000	156.820
211 n-Eicosane	43	9.903	9.903	(1.200)	939189	160.000	161.015
212 n-docosane	43	10.508	10.508	(1.274)	747929	160.000	165.562

QC Flag Legend

- Q - Qualifier signal failed the ratio test.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2099.d  
 Lab Smp Id: HSL\_0160  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kiddd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

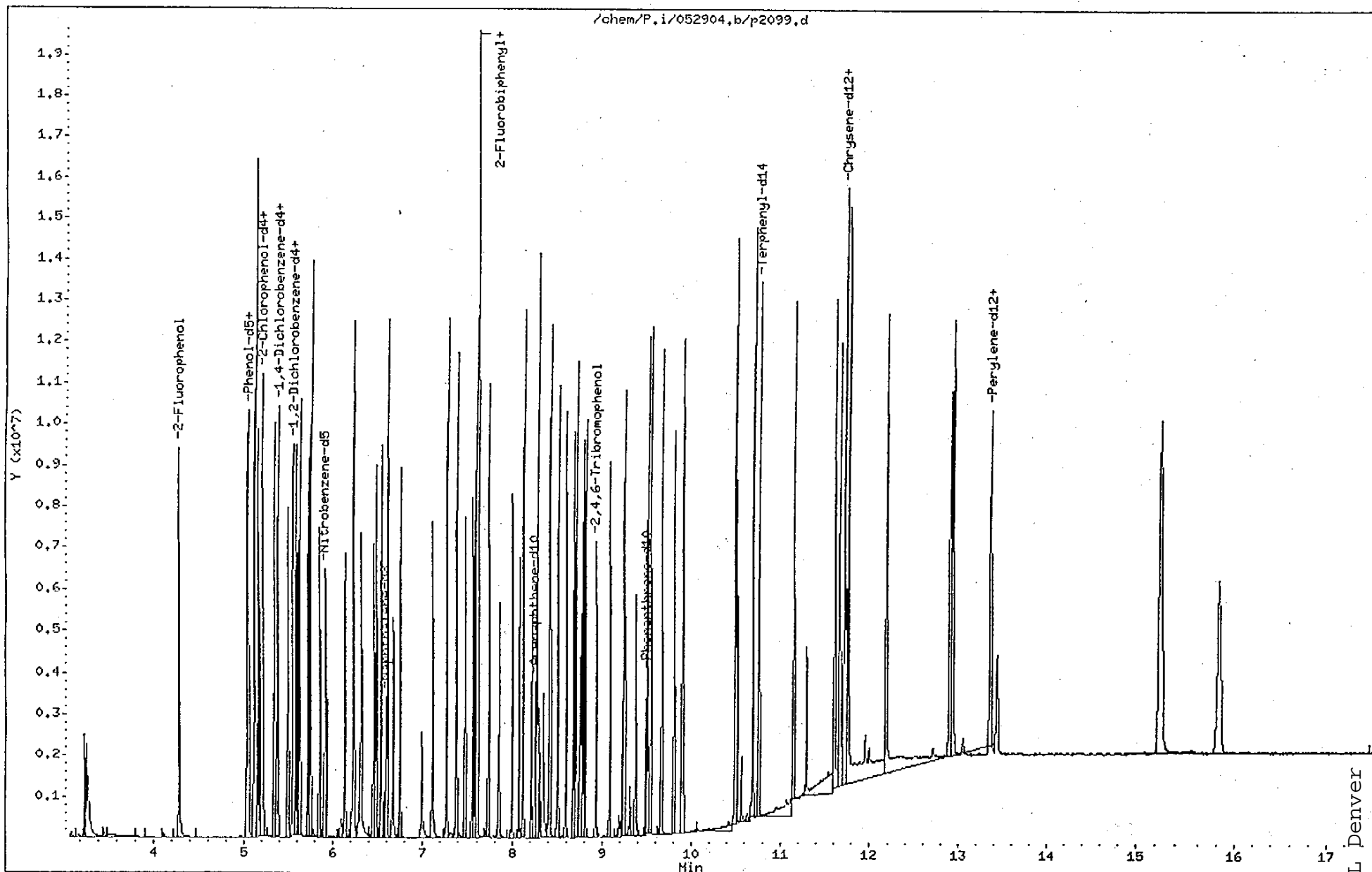
Calibration Date: 29-MAY-2004  
 Calibration Time: 11:58  
 Client Smp ID: HSL\_0160  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	278713	139356	557426	328772	17.96
49 Naphthalene-d8	1059542	529771	2119084	1182334	11.59
83 Acenaphthene-d10	593021	296510	1186042	620497	4.63
117 Phenanthrene-d10	1037755	518878	2075510	1108003	6.77
142 Chrysene-d12	1004679	502340	2009358	1339790	33.36
151 Perylene-d12	875814	437907	1751628	1138355	29.98

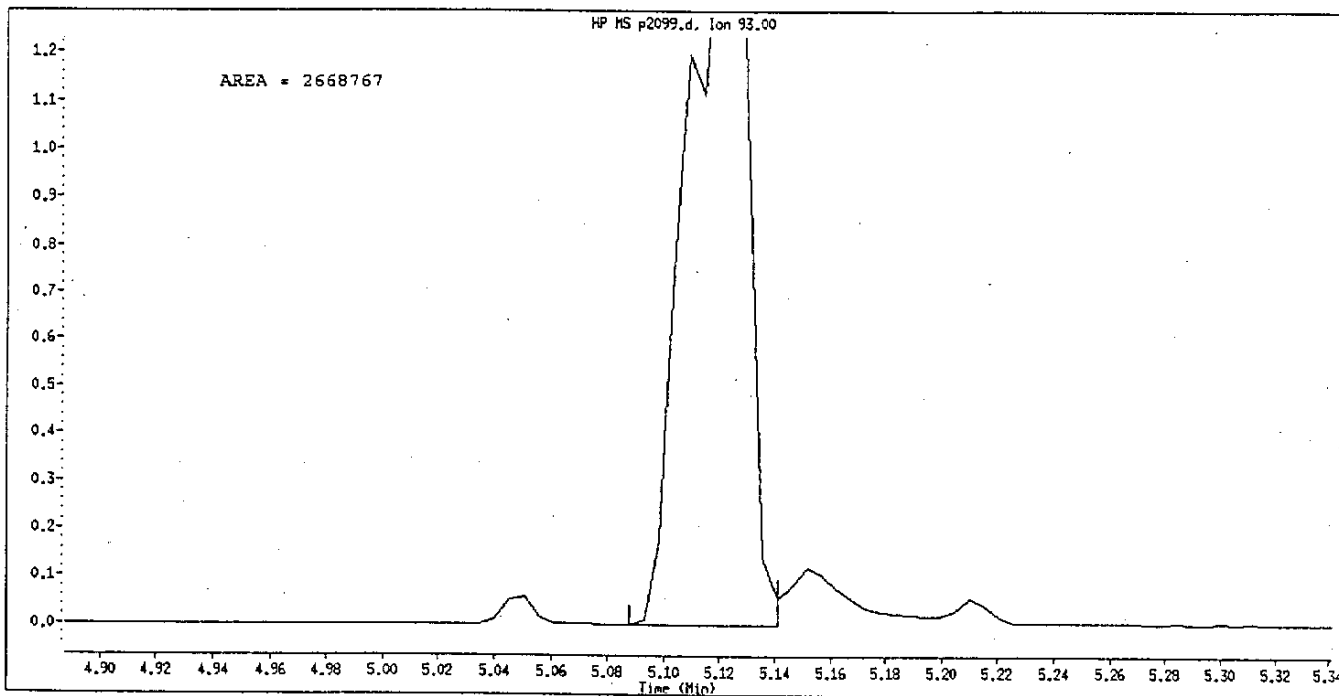
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	0.00
49 Naphthalene-d8	6.58	6.08	7.08	6.58	0.00
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	0.00
117 Phenanthrene-d10	9.48	8.98	9.98	9.49	0.11
142 Chrysene-d12	11.68	11.18	12.18	11.73	0.37
151 Perylene-d12	13.38	12.88	13.88	13.43	0.40

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.

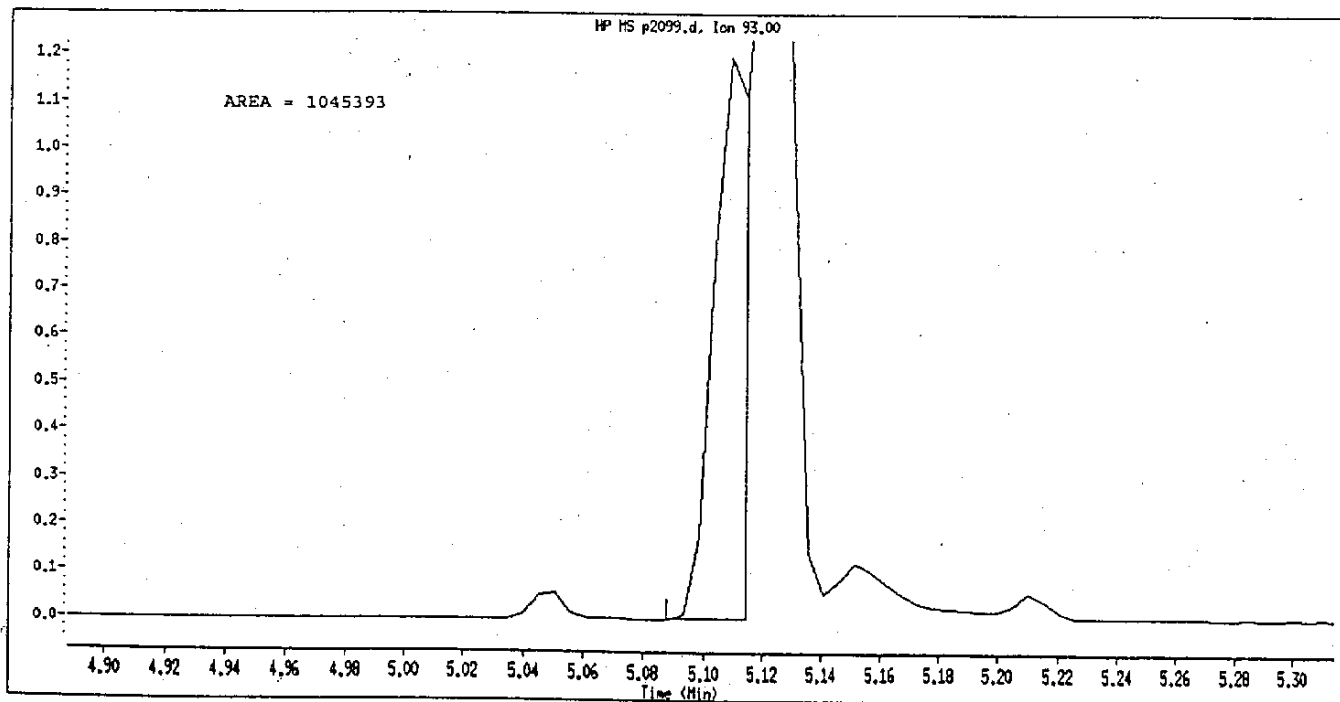




Data File Name: p2099.d  
Inj. Date and Time: 29-MAY-2004 14:37  
Instrument ID: P.i  
Client ID: HSL\_0160  
Compound Name: Aniline  
CAS #: 62-53-3  
Report Date: 06/03/2004



Original Integration



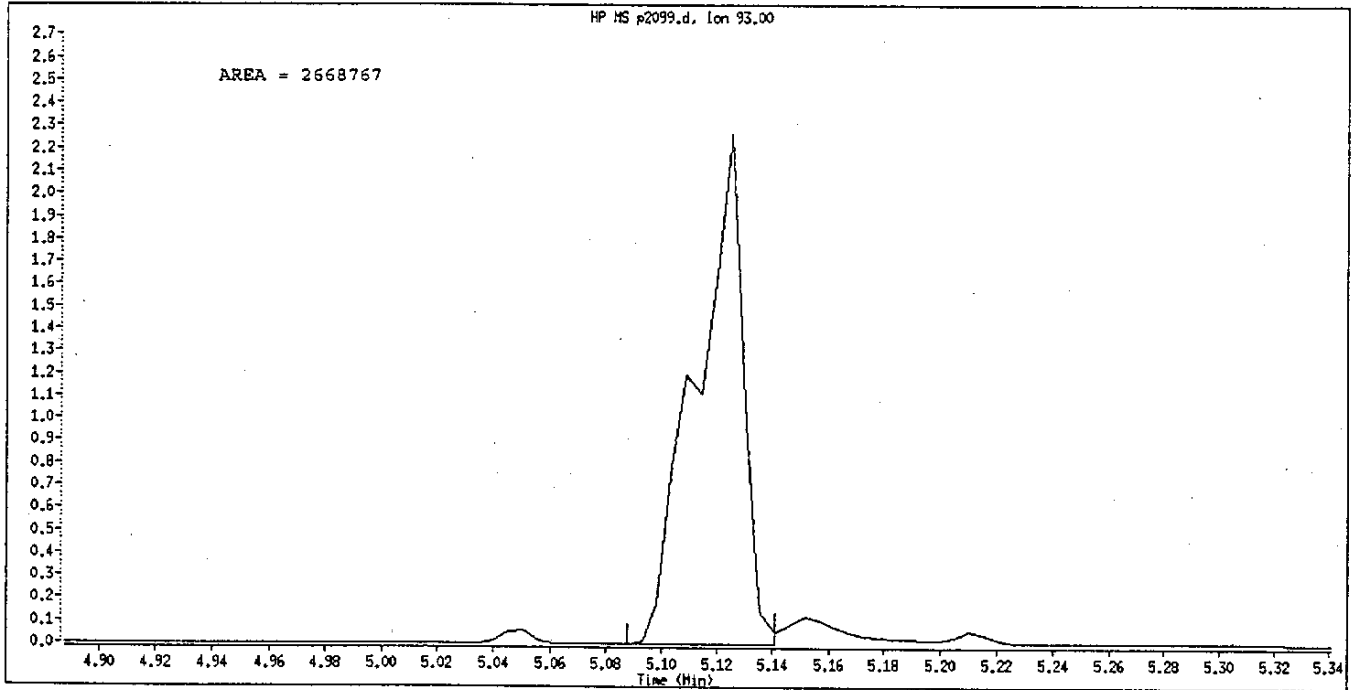
Manual Integration

Manually Integrated By: kidd  
Manual Integration Reason: Target Peak Misintegrated (Extraneous Area Removed)

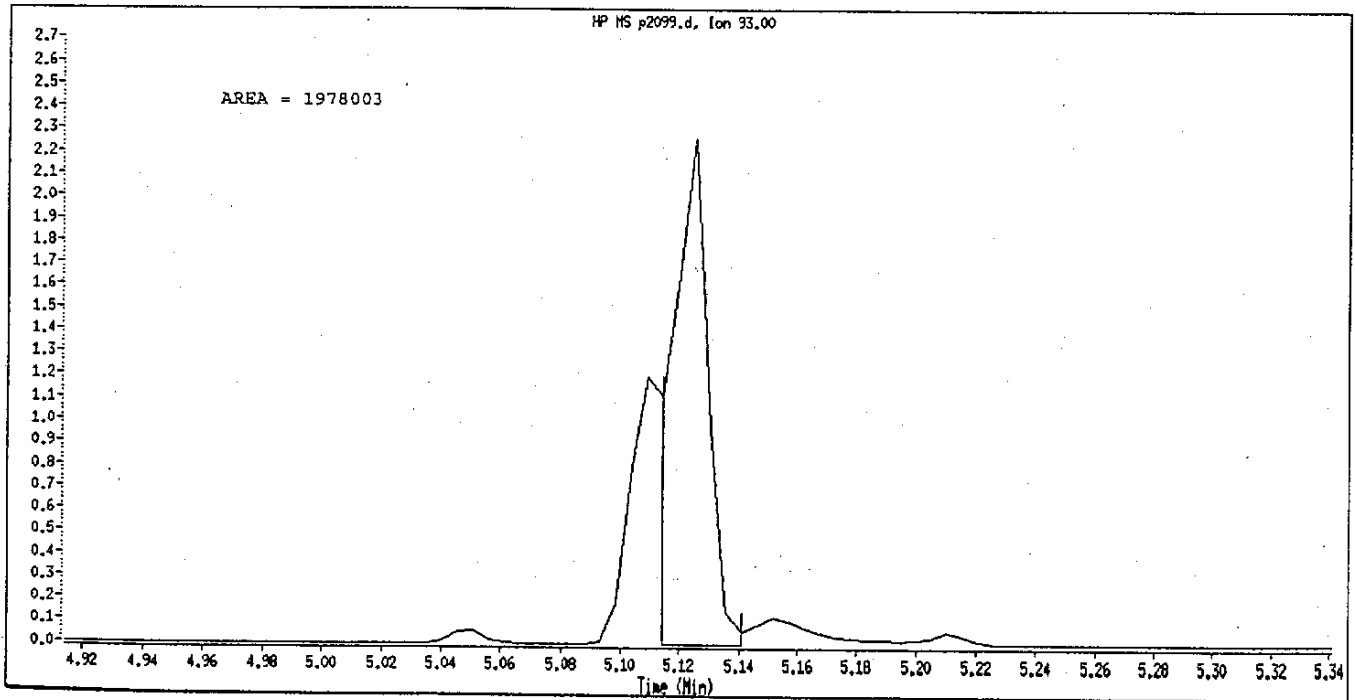
*max*  
06-03-04

✓  
6.3.04 B/B

Data File Name: p2099.d  
Inj. Date and Time: 29-MAY-2004 14:37  
Instrument ID: P.i  
Client ID: HSL\_0160  
Compound Name: Bis(2-chloroethyl) ether  
CAS #: 111-44-4  
Report Date: 06/03/2004



Original Integration



Manual Integration

Manually Integrated By: kidd  
Manual Integration Reason: Target Peak Misintegrated (Extraneous Area Removed)

*MLL*  
*06-03-04*  
*6.3.04* ✓  
*[Signature]*

*MMW*  
 06-03-04

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BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2100.d  
 Lab Smp Id: HSL\_0200 Client Smp ID: HSL\_0200  
 Inj Date : 29-MAY-2004 15:04  
 Operator : kiddd Inst ID: P.i  
 Smp Info : HSL\_0200,BNA1509,P:043004,E:053104  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 08:33 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 18:33 Cal File: p2108.d  
 Als bottle: 16 Calibration Sample, Level: 8  
 Dil Factor: 1.00000 Compound Sublist: 1-HSL.sub  
 Integrator: HP RTE  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	AMOUNTS					
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)
* 22 1,4-Dichlorobenzene-d4	152		5.364	5.364	(1.000)	319629	40.0000	
* 49 Naphthalene-d8	136		6.581	6.581	(1.000)	1159919	40.0000	
* 83 Acenaphthene-d10	164		8.250	8.250	(1.000)	601946	40.0000	
* 117 Phenanthrene-d10	188		9.488	9.488	(1.000)	1078476	40.0000	
* 142 Chrysene-d12	240		11.731	11.731	(1.000)	1321444	40.0000	
* 151 Perylene-d12	264		13.432	13.432	(1.000)	1069281	40.0000	
\$ 36 Nitrobenzene-d5	82		5.907	5.907	(1.101)	2031641	200.000	206.936 (A)
\$ 70 2-Fluorobiphenyl	172		7.612	7.612	(0.923)	3685281	200.000	192.374
\$ 133 Terphenyl-d14	244		10.753	10.753	(0.917)	3507867	200.000	183.231
\$ 10 2-Fluorophenol	112		4.286	4.286	(0.799)	2841152	300.000	303.223
\$ 14 Phenol-d5	99		5.040	5.040	(0.940)	3272669	300.000	292.029
\$ 103 2,4,6-Tribromophenol	330		8.936	8.936	(0.942)	516217	300.000	327.732 (A)
\$ 163 1,2-Dichlorobenzene-d4	152		5.545	5.545	(1.034)	1326519	200.000	195.094
\$ 162 2-Chlorophenol-d4	132		5.200	5.200	(0.969)	2844945	300.000	296.216
5 Pyridine	79		3.287	3.287	(0.613)	1531404	200.000	189.366

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
4 N-Nitrosodimethylamine	74	3.260	3.260	(0.608)	1138196	200.000	204.450 (A)
16 Aniline	93	5.109	5.109	(0.952)	1160954	200.000	202.115 (AM)
15 Phenol	94	5.051	5.051	(0.942)	2329662	200.000	196.646
18 Bis(2-chloroethyl) ether	93	5.125	5.125	(0.955)	2385997	200.000	198.315 (M)
20 2-Chlorophenol	128	5.210	5.210	(0.971)	1967434	200.000	196.387
21 1,3-Dichlorobenzene	146	5.338	5.338	(0.995)	2152869	200.000	196.314
23 1,4-Dichlorobenzene	146	5.380	5.380	(1.003)	2184982	200.000	194.419
24 Benzyl alcohol	108	5.492	5.492	(1.024)	1225553	200.000	212.974 (A)
25 1,2-Dichlorobenzene	146	5.561	5.561	(1.037)	2021506	200.000	194.212
26 2-Methylphenol	108	5.588	5.588	(1.042)	1707793	200.000	194.240
27 1H-Indene	116	5.630	5.630	(1.050)	3281983	200.000	193.820
28 2,2'-oxybis(1-chloropropane)	45	5.614	5.614	(1.047)	1666128	200.000	193.844
29 4-Methylphenol	108	5.715	5.715	(1.065)	1786306	200.000	198.021
30 N-nitrosodi-n-propylamine	70	5.747	5.747	(1.071)	1296547	200.000	201.040 (A)
32 Acetophenone	105	5.752	5.752	(1.072)	2565479	200.000	194.552
33 Hexachloroethane	117	5.848	5.848	(1.090)	907215	200.000	202.594 (A)
37 Nitrobenzene	77	5.928	5.928	(1.105)	1967895	200.000	199.393
40 Isophorone	82	6.130	6.130	(0.931)	3276308	200.000	201.811 (A)
41 2-Nitrophenol	139	6.225	6.225	(0.946)	986513	200.000	217.945 (A)
42 2,4-Dimethylphenol	107	6.220	6.220	(0.945)	1859521	200.000	199.209
43 Bis(2-chloroethoxy)methane	93	6.310	6.310	(0.959)	1970908	200.000	194.336
45 Benzoic acid	122	6.321	6.321	(0.960)	999307	200.000	225.672 (A)
46 2,4-Dichlorophenol	162	6.449	6.449	(0.980)	1525036	200.000	204.253 (A)
47 1,2,4-Trichlorobenzene	180	6.534	6.534	(0.993)	1698150	200.000	193.895
50 Naphthalene	128	6.603	6.603	(1.003)	5348924	200.000	187.514
51 4-Chloroaniline	127	6.666	6.666	(1.013)	1861272	200.000	185.277
52 Hexachlorobutadiene	225	6.746	6.746	(1.025)	1001402	200.000	198.273
59 4-Chloro-3-methylphenol	107	7.108	7.108	(1.080)	1570572	200.000	204.834 (A)
62 2-Methylnaphthalene	142	7.267	7.267	(1.104)	3235010	200.000	189.178
64 1-Methylnaphthalene	142	7.379	7.379	(1.121)	3256388	200.000	189.280
63 Hexachlorocyclopentadiene	237	7.469	7.469	(0.905)	1176451	200.000	222.308 (A)
67 2,4,6-Trichlorophenol	196	7.554	7.554	(0.916)	1019366	200.000	215.496 (A)
68 2,4,5-Trichlorophenol	196	7.602	7.602	(0.921)	1065215	200.000	213.931 (A)
71 2-Chloronaphthalene	162	7.735	7.735	(0.938)	3146495	200.000	196.191
74 2-Nitroaniline	65	7.852	7.852	(0.952)	885432	200.000	205.090 (A)
76 Dimethyl phthalate	163	8.000	8.000	(0.970)	3297647	200.000	197.935
79 2,6-Dinitrotoluene	165	8.080	8.080	(0.979)	723006	200.000	204.942 (A)
81 Acenaphthylene	152	8.123	8.123	(0.985)	4973182	200.000	193.082
82 3-Nitroaniline	138	8.224	8.224	(0.997)	809731	200.000	205.326 (A)
84 Acenaphthene	153	8.282	8.282	(1.004)	3146210	200.000	192.146
85 2,4-Dinitrophenol	184	8.303	8.303	(1.006)	447396	200.000	199.128
86 4-Nitrophenol	109	8.346	8.346	(1.012)	601247	200.000	212.191 (A)
87 2,4-Dinitrotoluene	165	8.426	8.426	(1.021)	963166	200.000	202.772 (A)
88 Dibenzofuran	168	8.415	8.415	(1.020)	4239871	200.000	188.880
93 Diethyl phthalate	149	8.596	8.596	(1.042)	3403537	200.000	198.859
95 4-Chlorophenyl phenyl ether	204	8.681	8.681	(1.052)	1782548	200.000	194.008
96 Fluorene	166	8.712	8.712	(1.056)	3314161	200.000	190.920

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
97 4-Nitroaniline	138	8.755	8.755	(1.061)	818768	200.000	213.216(A)
99 4,6-Dinitro-2-methylphenol	198	8.776	8.776	(1.064)	637639	200.000	210.494(A)
101 N-nitrosodiphenylamine	169	8.787	8.787	(1.065)	2390530	200.000	200.134(A)
102 Azobenzene	77	8.813	8.813	(1.068)	3310076	200.000	195.804
108 4-Bromophenyl phenyl ether	248	9.085	9.085	(0.957)	866250	200.000	193.975
110 Hexachlorobenzene	284	9.233	9.233	(0.973)	853857	200.000	193.371
113 Pentachlorophenol	266	9.377	9.377	(0.988)	566386	200.000	214.318(A)
118 Phenanthrene	178	9.510	9.510	(1.002)	4587898	200.000	185.774
122 Anthracene	178	9.547	9.547	(1.006)	4622450	200.000	192.222
123 Carbazole	167	9.669	9.669	(1.019)	4569549	200.000	199.627
125 Di-n-butyl phthalate	149	9.892	9.892	(1.043)	5302596	200.000	203.500(A)
130 Fluoranthene	202	10.488	10.488	(1.105)	5471188	200.000	196.752
131 Benzidine	184	10.562	10.562	(0.900)	575380	200.000	167.464
132 Pyrene	202	10.689	10.689	(0.911)	5722404	200.000	174.300
137 Butyl benzyl phthalate	149	11.141	11.141	(0.950)	2854838	200.000	214.525(A)
140 3,3'-Dichlorobenzidine	252	11.662	11.662	(0.994)	2234979	200.000	215.219(A)
141 Benzo(a)anthracene	228	11.715	11.715	(0.999)	5878676	200.000	188.803(H)
144 Chrysene	228	11.758	11.758	(1.002)	5643955	200.000	185.508
143 Bis(2-ethylhexyl) phthalate	149	11.598	11.598	(0.989)	4056065	200.000	200.072(AH)
146 Di-n-octyl phthalate	149	12.188	12.188	(1.039)	7443654	200.000	197.776
147 Benzo(b)fluoranthene	252	12.906	12.906	(0.961)	5911177	200.000	206.238(A)
148 Benzo(k)fluoranthene	252	12.937	12.937	(0.963)	6092365	200.000	201.396(AH)
150 Benzo(a)pyrene	252	13.363	13.363	(0.995)	5247238	200.000	203.344(A)
155 Indeno(1,2,3-cd)pyrene	276	15.260	15.260	(1.136)	5160052	200.000	172.354
156 Dibenz(a,h)anthracene	278	15.244	15.244	(1.135)	4446350	200.000	174.313
157 Benzo(g,h,i)perylene	276	15.818	15.818	(1.178)	4254788	200.000	163.929
168 Methyl Styrene	118	5.125	5.125	(0.955)	2104027	200.000	195.439
202 Alachlor	198	9.807	9.807	(1.034)	690793	200.000	224.617(A)
204 Atrazine	200	9.212	9.212	(0.971)	12902	200.000	43.5854(Q)
205 Caprolactam	55	6.991	6.991	(1.062)	505946	200.000	204.261(A)
207 2,3-Dichlorobenzeneamine	161	7.570	7.570	(0.918)	1677696	200.000	200.396(A)
206 Decane	43	5.162	5.162	(0.962)	1404267	200.000	193.882
213 n-Dodecane	43	6.480	6.480	(0.785)	1346330	200.000	201.886(A)
210 Tetradecane	43	7.607	7.607	(0.922)	1268155	200.000	197.649
209 Hexadecane	57	8.505	8.505	(1.031)	1728673	200.000	196.962
208 n-Octadecane	85	9.249	9.249	(0.975)	993156	200.000	194.536
211 n-Eicosane	43	9.908	9.908	(1.201)	1133801	200.000	200.370(A)
212 n-docosane	43	10.509	10.509	(1.274)	906639	200.000	206.879(A)

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- Q - Qualifier signal failed the ratio test.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2100.d  
 Lab Smp Id: HSL 0200  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kiddd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 11:58  
 Client Smp ID: HSL\_0200  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	278713	139356	557426	319629	14.68
49 Naphthalene-d8	1059542	529771	2119084	1159919	9.47
83 Acenaphthene-d10	593021	296510	1186042	601946	1.51
117 Phenanthrene-d10	1037755	518878	2075510	1078476	3.92
142 Chrysene-d12	1004679	502340	2009358	1321444	31.53
151 Perylene-d12	875814	437907	1751628	1069281	22.09

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	0.01
49 Naphthalene-d8	6.58	6.08	7.08	6.58	0.01
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	0.01
117 Phenanthrene-d10	9.48	8.98	9.98	9.49	0.12
142 Chrysene-d12	11.68	11.18	12.18	11.73	0.41
151 Perylene-d12	13.38	12.88	13.88	13.43	0.40

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.

Data File: /chem/P.i/052904.b/p2100.d

Date : 29-MAY-2004 15:04

Client ID: HSL\_0200

Instrument: P.i

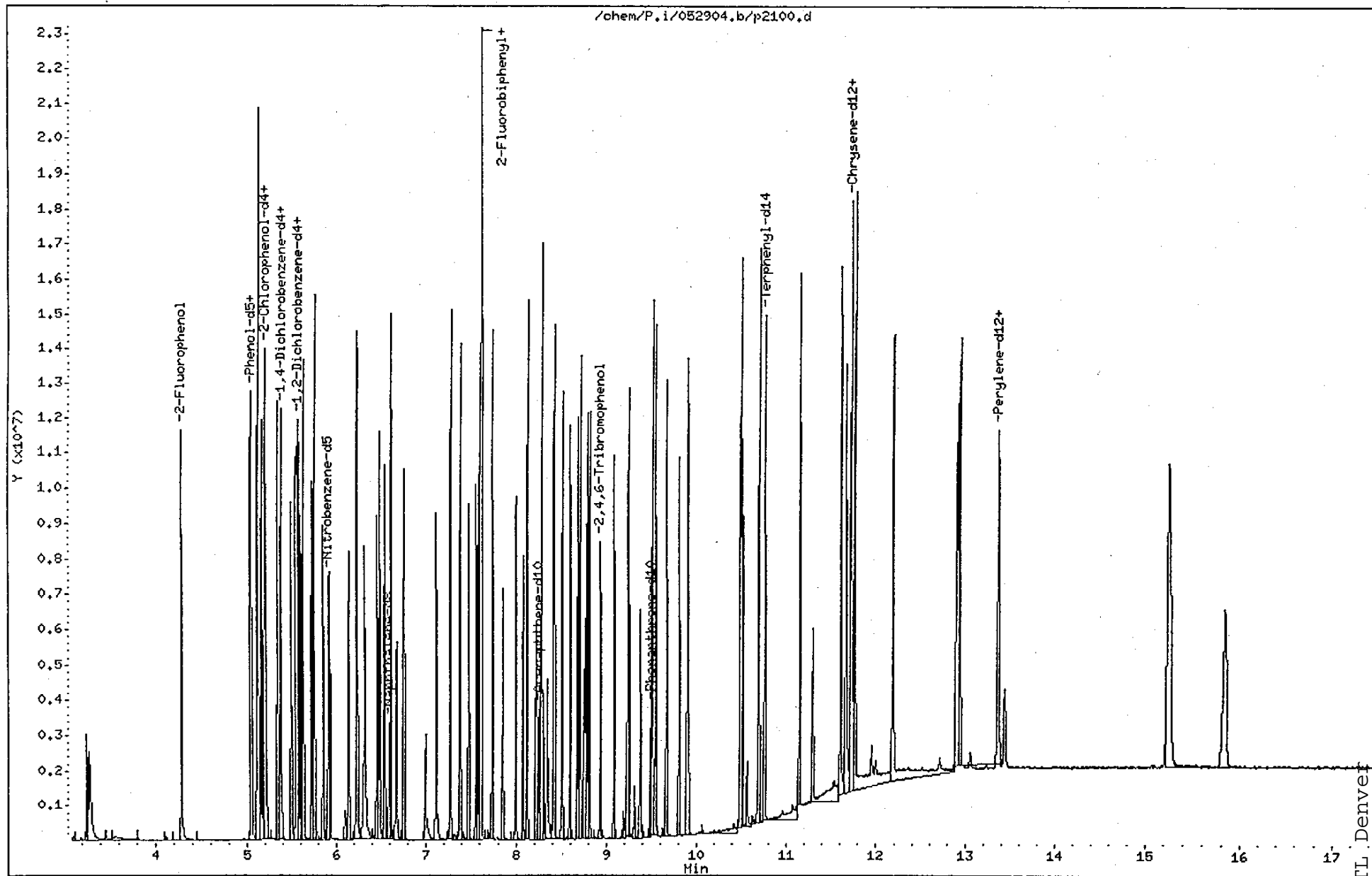
Sample Info: HSL\_0200,BNA1509,P:043004,E:053104

Volume Injected (uL): 0.5

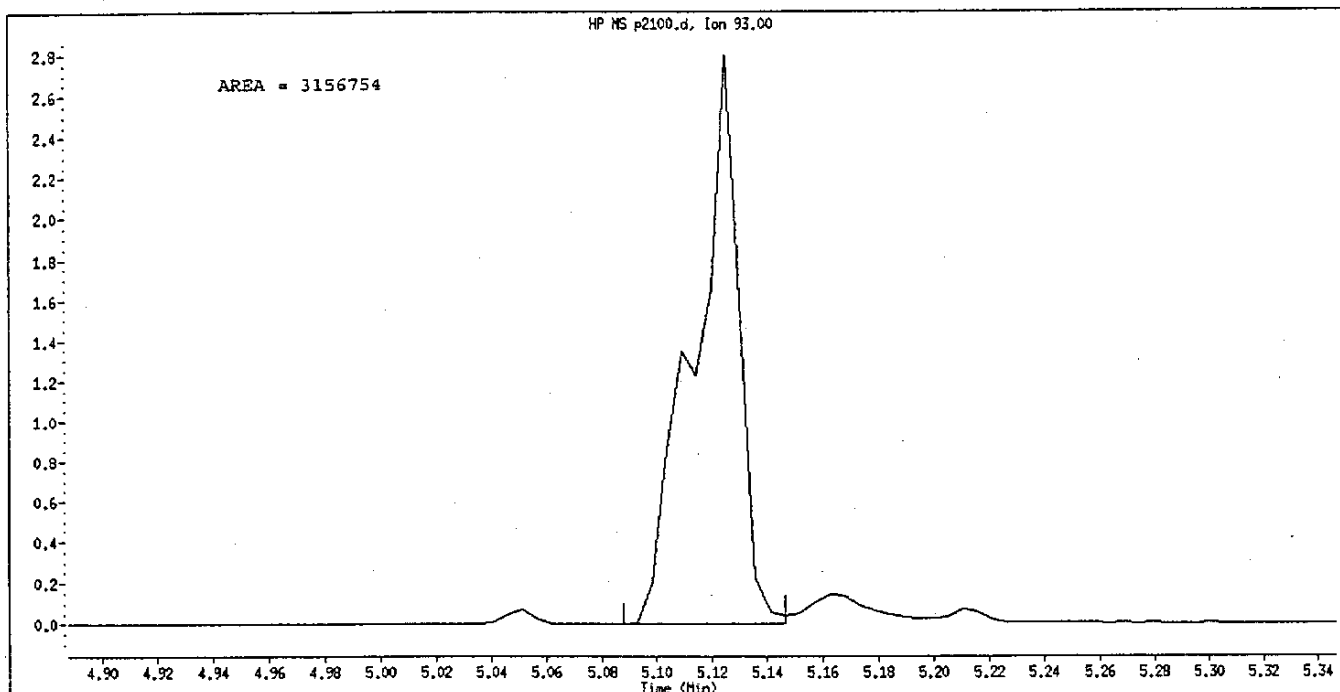
Operator: kidd

Column phase: Rtx-5ms 30m 0.5um

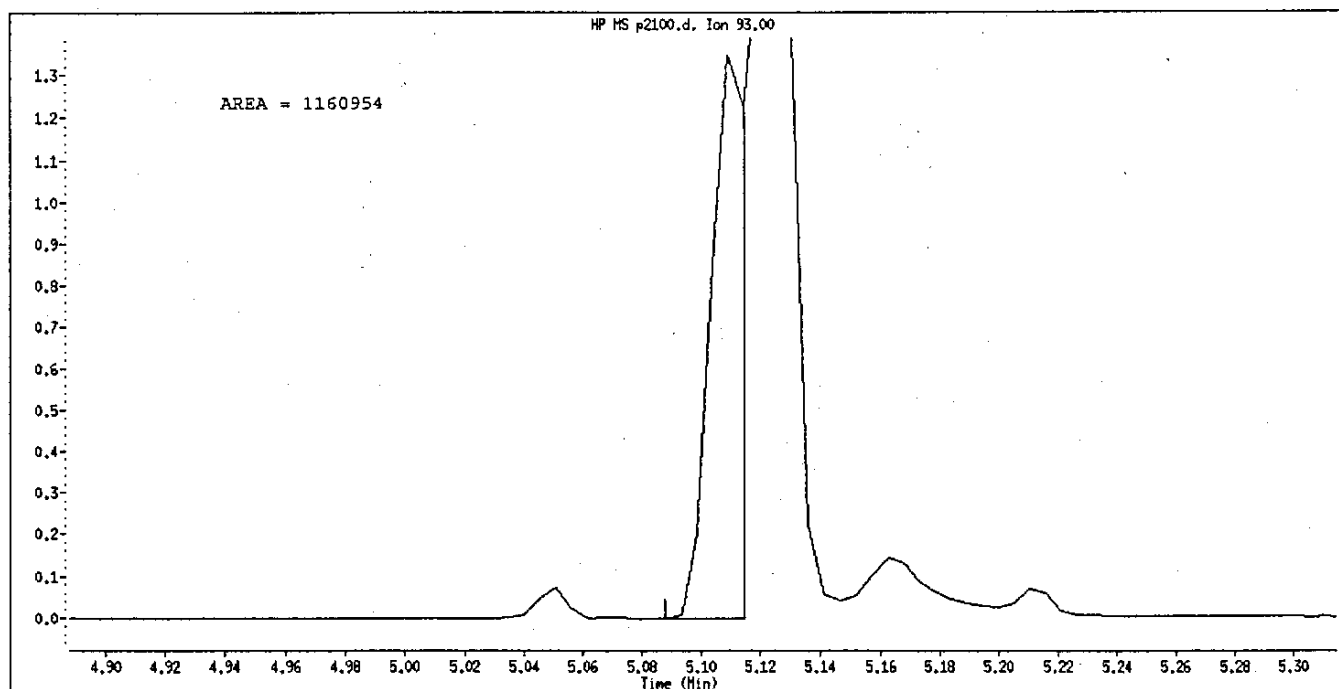
Column diameter: 0.25



Data File Name: p2100.d  
Inj. Date and Time: 29-MAY-2004 15:04  
Instrument ID: P.i  
Client ID: HSL\_0200  
Compound Name: Aniline  
CAS #: 62-53-3  
Report Date: 06/03/2004



Original Integration



Manual Integration

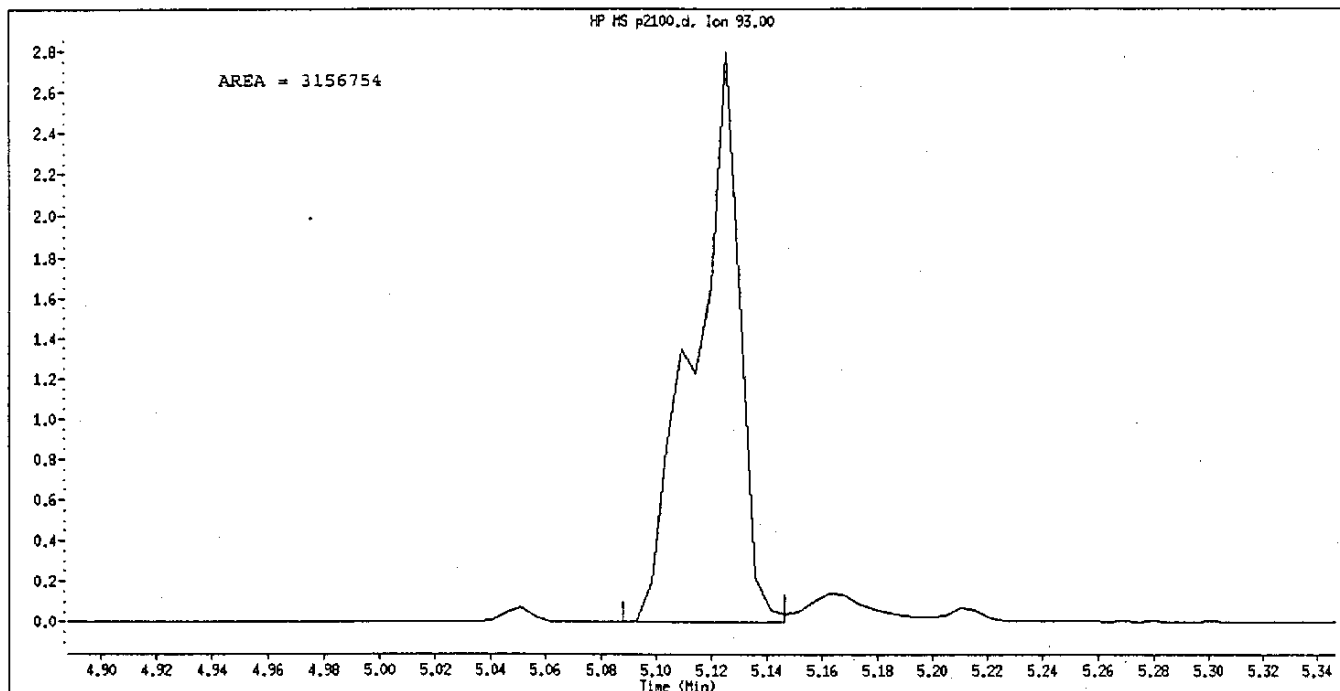
Manually Integrated By: kidd

Manual Integration Reason: Target Peak Misintegrated (Extraneous Area Removed)

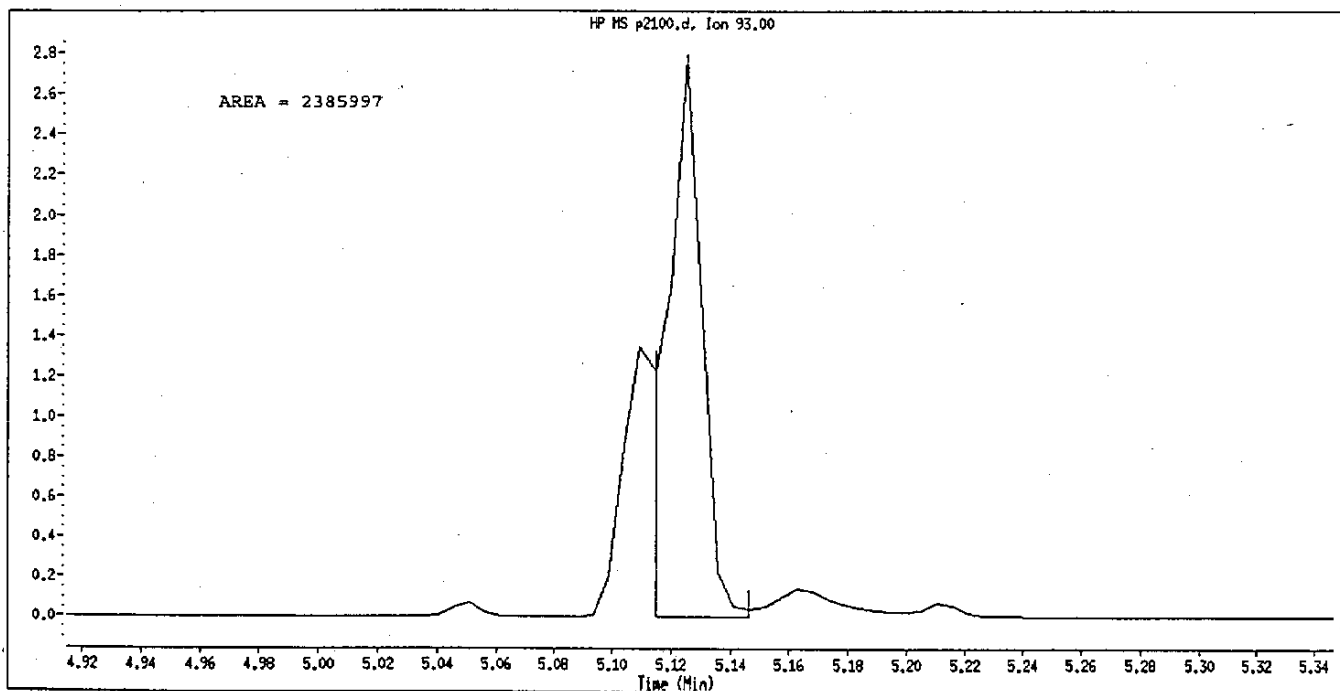
*Handwritten:*  
MCK  
06-03-04  
6.3.04 BJS



Data File Name: p2100.d  
Inj. Date and Time: 29-MAY-2004 15:04  
Instrument ID: P.i  
Client ID: HSL\_0200  
Compound Name: Bis(2-chloroethyl) ether  
CAS #: 111-44-4  
Report Date: 06/03/2004



Original Integration



Manual Integration

Manually Integrated By: kiddd  
Manual Integration Reason: Target Peak Misintegrated (Extraneous Area Removed)

*MLL*  
*06-03-04*  
*6:30 PM*

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*man*  
*06-03-04*  
*Aniline-bis*  
*Coelution*

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2101.d  
 Lab Smp Id: HSL 0100 SSV Client Smp ID: HSL\_01002ndSrc  
 Inj Date : 29-MAY-2004 15:30  
 Operator : kidd Inst ID: P.i  
 Smp Info : HSL\_0100 SSV,BNA1346,P:043004,E:113004  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 08:33 kidd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 18:33 Cal File: p2108.d  
 Als bottle: 17 QC Sample: SSV  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: HSLSSV.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/ml)	FINAL (ug/L)
* 22 1,4-Dichlorobenzene-d4	152			5.364	5.364	(1.000)	332873	40.0000	
* 49 Naphthalene-d8	136			6.581	6.581	(1.000)	1214624	40.0000	
* 83 Acenaphthene-d10	164			8.250	8.250	(1.000)	650919	40.0000	
* 117 Phenanthrene-d10	188			9.483	9.488	(1.000)	1167871	40.0000	
* 142 Chrysene-d12	240			11.704	11.731	(1.000)	1395472	40.0000	
* 151 Perylene-d12	264			13.400	13.432	(1.000)	1306744	40.0000	
\$ 36 Nitrobenzene-d5	82			5.906	5.907	(1.101)	1068322	104.486	104.486
\$ 70 2-Fluorobiphenyl	172			7.612	7.612	(0.923)	2003563	96.7185	96.7185
\$ 133 Terphenyl-d14	244			10.737	10.753	(0.917)	2136284	105.668	105.668
\$ 10 2-Fluorophenol	112			4.286	4.286	(0.799)	1469985	150.643	150.642
\$ 14 Phenol-d5	99			5.035	5.040	(0.939)	1751191	150.046	150.046
\$ 103 2,4,6-Tribromophenol	330			8.930	8.936	(0.942)	283431	166.169	166.169
5 Pyridine	79			3.286	3.287	(0.613)	809449	96.1102	96.1102
4 N-Nitrosodimethylamine	74			3.260	3.260	(0.608)	589064	101.601	101.601
16 Aniline	93			5.120	5.109	(0.954)	1862629	462.781	462.780 (AQR)

Compounds	QUANT SIG			CONCENTRATIONS		
	MASS	RT	EXP RT REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/L)
15 Phenol	94	5.045	5.051 (0.941)	1245237	100.928	100.928
18 Bis(2-chloroethyl) ether	93	5.120	5.125 (0.954)	1862629	148.655	148.655(R)
20 2-Chlorophenol	128	5.210	5.210 (0.971)	1038482	99.5356	99.5356
21 1,3-Dichlorobenzene	146	5.338	5.338 (0.995)	1173298	102.733	102.733
23 1,4-Dichlorobenzene	146	5.380	5.380 (1.003)	1179829	100.804	100.804
24 Benzyl alcohol	108	5.492	5.492 (1.024)	623118	103.976	103.976
25 1,2-Dichlorobenzene	146	5.561	5.561 (1.037)	1127076	103.973	103.973
26 2-Methylphenol	108	5.588	5.588 (1.042)	877040	95.7833	95.7833
27 1H-Indene	116	5.630	5.630 (1.050)	1733990	98.3276	98.3276
28 2,2'-oxybis(1-chloropropane)	45	5.609	5.614 (1.046)	899102	100.443	100.443
29 4-Methylphenol	108	5.715	5.715 (1.065)	986607	105.019	105.019
30 N-nitrosodi-n-propylamine	70	5.747	5.747 (1.071)	706254	105.153	105.153
32 Acetophenone	105	5.747	5.752 (1.071)	1368625	99.6595	99.6595
33 Hexachloroethane	117	5.843	5.848 (1.089)	509472	109.246	109.246
37 Nitrobenzene	77	5.922	5.928 (1.104)	1091598	106.203	106.203
40 Isophorone	82	6.124	6.130 (0.931)	1758377	103.433	103.433
41 2-Nitrophenol	139	6.225	6.225 (0.946)	515769	108.814	108.814
42 2,4-Dimethylphenol	107	6.220	6.220 (0.945)	1016244	103.966	103.966
43 Bis(2-chloroethoxy)methane	93	6.305	6.310 (0.958)	1106572	104.196	104.196
45 Benzoic acid	122	6.310	6.321 (0.959)	490533	105.787	105.787
46 2,4-Dichlorophenol	162	6.443	6.449 (0.979)	814608	104.189	104.189
47 1,2,4-Trichlorobenzene	180	6.528	6.534 (0.992)	938487	102.331	102.330
50 Naphthalene	128	6.603	6.603 (1.003)	2974613	99.5826	99.5826
51 4-Chloroaniline	127	6.661	6.666 (1.012)	939738	89.3312	89.3312
52 Hexachlorobutadiene	225	6.746	6.746 (1.025)	548511	103.711	103.711
59 4-Chloro-3-methylphenol	107	7.102	7.108 (1.079)	849711	105.828	105.828
62 2-Methylnaphthalene	142	7.267	7.267 (1.104)	1835149	102.483	102.483
64 1-Methylnaphthalene	142	7.373	7.379 (1.120)	1698733	94.2930	94.2930
63 Hexachlorocyclopentadiene	237	7.469	7.469 (0.905)	553825	96.7797	96.7797
67 2,4,6-Trichlorophenol	196	7.554	7.554 (0.916)	576060	112.618	112.618
68 2,4,5-Trichlorophenol	196	7.596	7.602 (0.921)	606379	112.619	112.619
71 2-Chloronaphthalene	162	7.729	7.735 (0.937)	1770930	102.114	102.114
74 2-Nitroaniline	65	7.846	7.852 (0.951)	483158	105.796	105.796
76 Dimethyl phthalate	163	7.995	8.000 (0.969)	1913803	106.230	106.230
79 2,6-Dinitrotoluene	165	8.080	8.080 (0.979)	400593	107.039	107.039
81 Acenaphthylene	152	8.123	8.123 (0.985)	2760999	99.1299	99.1298
82 3-Nitroaniline	138	8.218	8.224 (0.996)	435802	104.684	104.684
84 Acenaphthene	153	8.282	8.282 (1.004)	1760420	99.4240	99.4240
85 2,4-Dinitrophenol	184	8.298	8.303 (1.006)	211345	110.447	110.447
86 4-Nitrophenol	109	8.346	8.346 (1.012)	311069	107.039	107.039
87 2,4-Dinitrotoluene	165	8.425	8.426 (1.021)	535146	106.338	106.338
88 Dibenzofuran	168	8.415	8.415 (1.020)	2555559	105.281	105.281
93 Diethyl phthalate	149	8.595	8.596 (1.042)	1984846	107.244	107.244
95 4-Chlorophenyl phenyl ether	204	8.675	8.681 (1.052)	1017310	102.391	102.391
96 Fluorene	166	8.707	8.712 (1.055)	1915167	102.027	102.027
97 4-Nitroaniline	138	8.750	8.755 (1.061)	435025	107.717	107.717
99 4,6-Dinitro-2-methylphenol	198	8.771	8.776 (1.063)	311304	100.002	100.002

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/L)
101 N-nitrosodiphenylamine	169	8.781	8.787	(1.064)	1430294	110.735	110.735
102 Azobenzene	77	8.808	8.813	(1.068)	2061843	112.790	112.790
108 4-Bromophenyl phenyl ether	248	9.084	9.085	(0.958)	495091	102.377	102.377
110 Hexachlorobenzene	284	9.228	9.233	(0.973)	494431	103.402	103.402
113 Pentachlorophenol	266	9.371	9.377	(0.988)	317030	115.453	115.453
118 Phenanthrene	178	9.504	9.510	(1.002)	2645881	98.9365	98.9365
122 Anthracene	178	9.536	9.547	(1.006)	2718176	104.382	104.382
123 Carbazole	167	9.658	9.669	(1.018)	2694150	108.689	108.689
125 Di-n-butyl phthalate	149	9.887	9.892	(1.043)	3259288	115.508	115.508
130 Fluoranthene	202	10.471	10.488	(1.104)	3277393	108.838	108.838
131 Benzidine	184	10.546	10.562	(0.901)	325305	89.6572	89.6572
132 Pyrene	202	10.668	10.689	(0.911)	3286887	94.8051	94.8051
137 Butyl benzyl phthalate	149	11.115	11.141	(0.950)	1596910	113.633	113.633
140 3,3'-Dichlorobenzidine	252	11.630	11.662	(0.994)	1229129	112.081	112.081
141 Benzo(a)anthracene	228	11.683	11.715	(0.998)	3185532	102.964	102.964 (H)
144 Chrysene	228	11.731	11.758	(1.002)	3591888	111.797	111.797
143 Bis(2-ethylhexyl) phthalate	149	11.572	11.598	(0.989)	2325229	109.700	109.700 (H)
146 Di-n-octyl phthalate	149	12.151	12.188	(1.038)	4165182	106.745	106.745
147 Benzo(b)fluoranthene	252	12.874	12.906	(0.961)	3554794	101.487	101.487 (H)
148 Benzo(k)fluoranthene	252	12.900	12.937	(0.963)	3750880	101.461	101.461
150 Benzo(a)pyrene	252	13.320	13.363	(0.994)	3322731	105.365	105.365
155 Indeno(1,2,3-cd)pyrene	276	15.217	15.260	(1.136)	3884212	106.163	106.163
156 Dibenz(a,h)anthracene	278	15.201	15.244	(1.134)	3568997	114.492	114.492
157 Benzo(g,h,i)perylene	276	15.775	15.818	(1.177)	3268063	103.031	103.031
168 Methyl Styrene	118	5.120	5.125	(0.954)	1105432	98.5960	98.5960
202 Alachlor	188	9.797	9.807	(1.033)	403010	121.011	121.011
204 Atrazine	200	9.207	9.212	(0.971)	153651	479.330	479.330 (AQR)
205 Caprolactam	55	6.980	6.991	(1.061)	263429	104.524	104.524
207 2,3-Dichlorobenzeneamine	161	7.570	7.570	(0.918)	898812	99.2832	99.2832
206 Decane	43	5.162	5.162	(0.962)	729271	96.6819	96.6819
213 n-Dodecane	43	6.475	6.480	(0.785)	707769	98.1472	98.1472
210 Tetradecane	43	7.602	7.607	(0.921)	686137	98.8927	98.8927
209 Hexadecane	57	Compound Not Detected.					
208 n-Octadecane	85	9.249	9.249	(0.975)	544754	98.5371	98.5371
211 n-Eicosane	43	9.898	9.908	(1.200)	685476	112.026	112.026
212 n-docosane	43	10.493	10.509	(1.272)	654577	138.125	138.125 (R)

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.
- H - Operator selected an alternate compound hit.

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2101.d  
 Lab Smp Id: HSL 0100 SSV  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kiddd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 11:58  
 Client Smp ID: HSL\_01002ndSrc  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	340571	170286	681142	332873	-2.26
49 Naphthalene-d8	1226615	613308	2453230	1214624	-0.98
83 Acenaphthene-d10	656132	328066	1312264	650919	-0.79
117 Phenanthrene-d10	1163805	581902	2327610	1167871	0.35
142 Chrysene-d12	1266300	633150	2532600	1395472	10.20
151 Perylene-d12	1208372	604186	2416744	1306744	8.14

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	-0.01
49 Naphthalene-d8	6.58	6.08	7.08	6.58	-0.01
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	-0.01
117 Phenanthrene-d10	9.49	8.99	9.99	9.48	-0.06
142 Chrysene-d12	11.74	11.24	12.24	11.70	-0.28
151 Perylene-d12	13.44	12.94	13.94	13.40	-0.32

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.

STL-Denver

RECOVERY REPORT

Client Name: Client SDG: 052904  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: HSL\_0100 SSV Client Smp ID: HSL\_01002ndSrc  
 Level: LOW Operator: kiddd  
 Data Type: MS DATA SampleType: SSV  
 SpikeList File: HSLSSV.spk Quant Type: ISTD  
 Sublist File: HSLSSV.sub  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
4 N-Nitrosodimethyla	100.000	101.601	101.60	75-125
15 Phenol	100.000	100.928	100.93	75-125
18 Bis(2-chloroethyl)	100.000	148.655	148.66*	75-125
20 2-Chlorophenol	100.000	99.5356	99.54	75-125
21 1,3-Dichlorobenzen	100.000	102.733	102.73	75-125
23 1,4-Dichlorobenzen	100.000	100.804	100.80	75-125
25 1,2-Dichlorobenzen	100.000	103.973	103.97	75-125
28 2,2'-oxybis(1-chlo	100.000	100.443	100.44	75-125
30 N-nitrosodi-n-prop	100.000	105.153	105.15	75-125
33 Hexachloroethane	100.000	109.246	109.25	75-125
37 Nitrobenzene	100.000	106.203	106.20	75-125
40 Isophorone	100.000	103.433	103.43	75-125
41 2-Nitrophenol	100.000	108.814	108.81	75-125
42 2,4-Dimethylphenol	100.000	103.966	103.97	75-125
43 Bis(2-chloroethoxy	100.000	104.196	104.20	75-125
46 2,4-Dichlorophenol	100.000	104.189	104.19	75-125
47 1,2,4-Trichloroben	100.000	102.330	102.33	75-125
50 Naphthalene	100.000	99.5826	99.58	75-125
52 Hexachlorobutadien	100.000	103.711	103.71	75-125
59 4-Chloro-3-methylp	100.000	105.828	105.83	75-125
63 Hexachlorocyclopen	100.000	96.7797	96.78	75-125
67 2,4,6-Trichlorophe	100.000	112.618	112.62	75-125
71 2-Chloronaphthalen	100.000	102.114	102.11	75-125
76 Dimethyl phthalate	100.000	106.230	106.23	75-125
79 2,6-Dinitrotoluene	100.000	107.039	107.04	75-125
81 Acenaphthylene	100.000	99.1298	99.13	75-125
84 Acenaphthene	100.000	99.4240	99.42	75-125
85 2,4-Dinitrophenol	100.000	110.447	110.45	75-125
86 4-Nitrophenol	100.000	107.039	107.04	75-125
87 2,4-Dinitrotoluene	100.000	106.338	106.34	75-125
93 Diethyl phthalate	100.000	107.244	107.24	75-125
95 4-Chlorophenyl phe	100.000	102.391	102.39	75-125
96 Fluorene	100.000	102.027	102.03	75-125

*aniline-1  
 Coelutto*

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
99 4,6-Dinitro-2-meth	100.000	100.002	100.00	75-125
101 N-nitrosodiphenyla	100.000	110.735	110.73	75-125
102 Azobenzene	100.000	112.790	112.79	75-125
108 4-Bromophenyl phen	100.000	102.377	102.38	75-125
110 Hexachlorobenzene	100.000	103.402	103.40	75-125
113 Pentachlorophenol	100.000	115.453	115.45	75-125
118 Phenanthrene	100.000	98.9365	98.94	75-125
122 Anthracene	100.000	104.382	104.38	75-125
125 Di-n-butyl phthala	100.000	115.508	115.51	75-125
130 Fluoranthene	100.000	108.838	108.84	75-125
131 Benzidine	100.000	89.6572	89.66	45-155
132 Pyrene	100.000	94.8051	94.81	75-125
137 Butyl benzyl phtha	100.000	113.633	113.63	75-125
140 3,3'-Dichlorobenzi	100.000	112.081	112.08	75-125
141 Benzo(a)anthracene	100.000	102.964	102.96	75-125
144 Chrysene	100.000	111.797	111.80	75-125
143 Bis(2-ethylhexyl)	100.000	109.700	109.70	75-125
146 Di-n-octyl phthala	100.000	106.745	106.75	75-125
147 Benzo(b)fluoranthene	100.000	101.487	101.49	75-125
148 Benzo(k)fluoranthene	100.000	101.461	101.46	75-125
150 Benzo(a)pyrene	100.000	105.365	105.37	75-125
155 Indeno(1,2,3-cd)py	100.000	106.163	106.16	75-125
156 Dibenz(a,h)anthrac	100.000	114.492	114.49	75-125
157 Benzo(g,h,i)perylene	100.000	103.031	103.03	75-125
5 Pyridine	100.000	96.1102	96.11	75-125
16 Aniline	100.000	462.780	462.78*	75-125
24 Benzyl alcohol	100.000	103.976	103.98	75-125
26 2-Methylphenol	100.000	95.7833	95.78	75-125
29 4-Methylphenol	100.000	105.019	105.02	75-125
45 Benzoic acid	100.000	105.787	105.79	75-125
51 4-Chloroaniline	100.000	89.3312	89.33	75-125
62 2-Methylnaphthalene	100.000	102.483	102.48	75-125
68 2,4,5-Trichlorophenol	100.000	112.619	112.62	75-125
74 2-Nitroaniline	100.000	105.796	105.80	75-125
82 3-Nitroaniline	100.000	104.684	104.68	75-125
88 Dibenzofuran	100.000	105.281	105.28	75-125
97 4-Nitroaniline	100.000	107.717	107.72	75-125
123 Carbazole	100.000	108.689	108.69	75-125
202 Alachlor	100.000	121.011	121.01	75-125
204 Atrazine	100.000	479.330	479.33*	75-125
205 Caprolactam	100.000	104.524	104.52	75-125
207 2,3-Dichlorobenzene	100.000	99.2832	99.28	75-125
206 Decane	100.000	96.6819	96.68	75-125
213 n-Dodecane	100.000	98.1472	98.15	75-125
210 Tetradecane	100.000	98.8927	98.89	75-125
208 n-Octadecane	100.000	98.5371	98.54	75-125
211 n-Eicosane	100.000	112.026	112.03	75-125

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
212 n-docosane	100.000	138.125	138.13*	75-125

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	100.000	104.486	104.49	75-125
\$ 70 2-Fluorobiphenyl	100.000	96.7185	96.72	75-125
\$ 133 Terphenyl-d14	100.000	105.668	105.67	75-125
\$ 10 2-Fluorophenol	150.000	150.642	100.43	75-125
\$ 14 Phenol-d5	150.000	150.046	100.03	75-125
\$ 103 2,4,6-Tribromophen	150.000	166.169	110.78	75-125



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TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:  
Lab Smp Id: HSL 0100 SSV  
Operator : kidd  
Sample Location:  
Sample Matrix: WATER  
Analysis Type: SV

Client SDG: 052904  
Client Smp ID: HSL 01002ndSrc  
Sample Date: 30-MAR-1998  
Sample Point:  
Date Received: 31-MAR-1998 00:00  
Level: LOW

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

Data File: /chem/P.i/052904.b/p2101.d

Date: 29-MAY-2004 15:30

Client ID: HSL\_01002ndSrc

Sample Info: HSL\_0100 SSV,BNA1346,P:043004,E:113004

Volume Injected (uL): 0.5

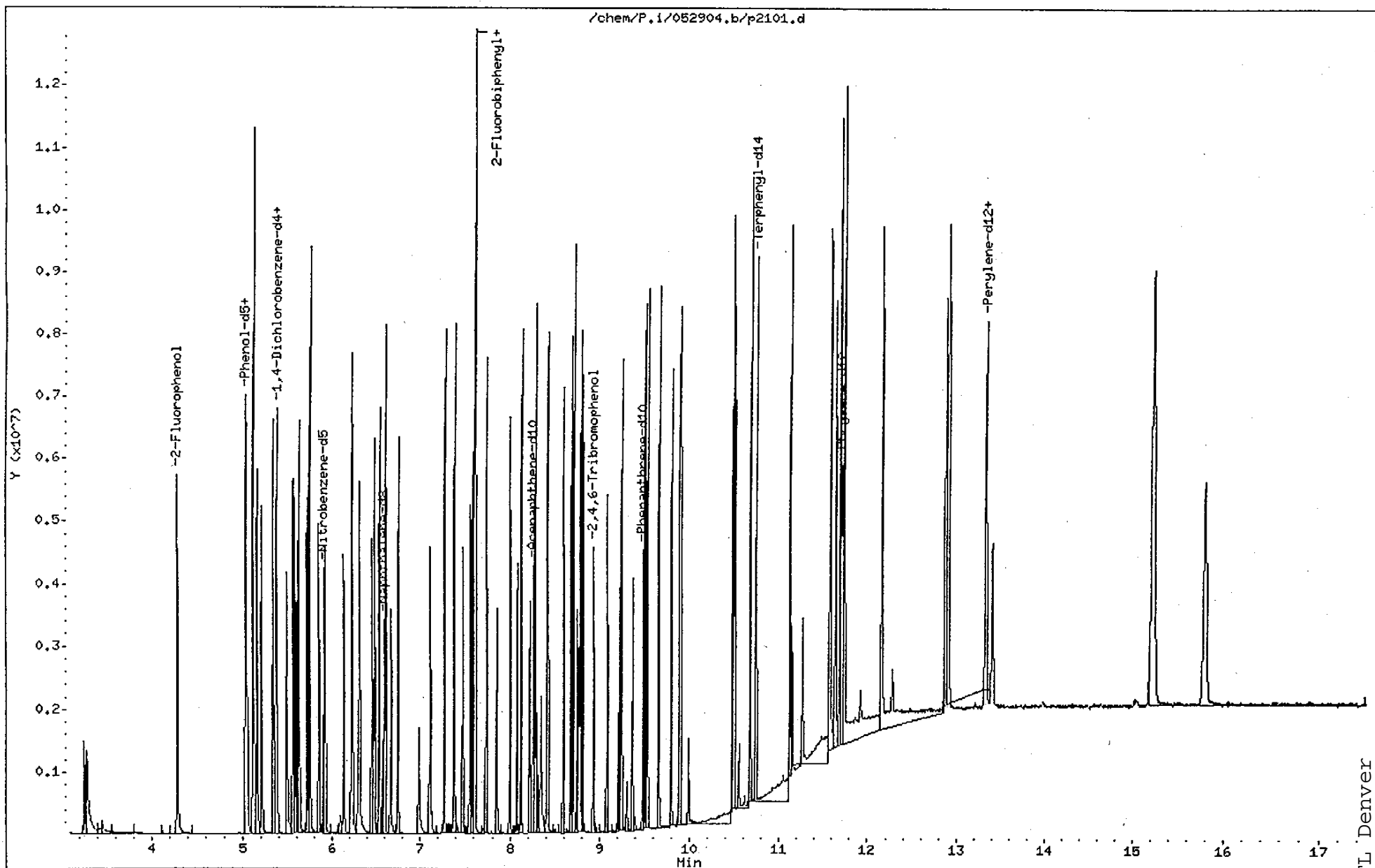
Column phase: Rtx-5ms 30m 0.5um

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Instrument: P.i

Operator: kidd

Column diameter: 0.25



*nan*  
*060304*

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BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2110.d  
 Lab Smp Id: HSL\_01002ndSrc Client Smp ID: HSL\_01002ndSrc  
 Inj Date : 29-MAY-2004 19:25  
 Operator : kidd Inst ID: P.i  
 Smp Info : HSL\_01002ndSrc,BNA1346,P:050604,E:113004  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 08:33 kidd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 18:33 Cal File: p2108.d  
 Als bottle: 26 QC Sample: SSV  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: HSLSSV.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	CONCENTRATIONS				
			ON-COLUMN	FINAL			
	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/ml)	( ug/L)
* 22 1,4-Dichlorobenzene-d4	152	5.364	5.364	(1.000)	285862	40.0000	
* 49 Naphthalene-d8	136	6.576	6.581	(1.000)	1025063	40.0000	
* 83 Acenaphthene-d10	164	8.250	8.250	(1.000)	536929	40.0000	
* 117 Phenanthrene-d10	188	9.478	9.488	(1.000)	951379	40.0000	
* 142 Chrysene-d12	240	11.683	11.731	(1.000)	1211030	40.0000	
* 151 Perylene-d12	264	13.373	13.432	(1.000)	1130746	40.0000	
\$ 36 Nitrobenzene-d5	82	5.901	5.907	(1.100)	860281	97.9761	97.9760
\$ 70 2-Fluorobiphenyl	172	7.607	7.612	(0.922)	1582756	92.6255	92.6255
\$ 133 Terphenyl-d14	244	10.726	10.753	(0.918)	1708948	97.4043	97.4043
\$ 10 2-Fluorophenol	112	4.285	4.286	(0.799)	1228118	146.554	146.554
\$ 14 Phenol-d5	99	5.035	5.040	(0.939)	1415362	141.215	141.215
\$ 103 2,4,6-Tribromophenol	330	8.930	8.936	(0.942)	216735	155.981	155.981
5 Pyridine	79	3.286	3.287	(0.613)	764015	105.634	105.634
4 N-Nitrosodimethylamine	74	3.254	3.260	(0.607)	480633	96.5324	96.5324
16 Aniline	93	5.104	5.109	(0.951)	526814	59.6212	59.6212(R)

Compounds	QUANT SIG				CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL ( ug/L)
15 Phenol	94	5.045	5.051	(0.941)	1003129	94.6757	94.6757
18 Bis(2-chloroethyl) ether	93	5.120	5.125	(0.954)	1226518	113.986	113.986
20 2-Chlorophenol	128	5.210	5.210	(0.971)	861809	96.1862	96.1862
21 1,3-Dichlorobenzene	146	5.332	5.338	(0.994)	981707	100.094	100.094
23 1,4-Dichlorobenzene	146	5.380	5.380	(1.003)	1004688	99.9569	99.9569
24 Benzyl alcohol	108	5.486	5.492	(1.023)	471921	91.6965	91.6965
25 1,2-Dichlorobenzene	146	5.556	5.561	(1.036)	939760	100.950	100.950
26 2-Methylphenol	108	5.582	5.588	(1.041)	723563	92.0172	92.0172
27 1H-Indene	116	5.625	5.630	(1.049)	1445621	95.4565	95.4565
28 2,2'-oxybis(1-chloropropane)	45	5.609	5.614	(1.046)	740827	96.3718	96.3718
29 4-Methylphenol	108	5.710	5.715	(1.064)	753277	93.3685	93.3685
30 N-nitrosodi-n-propylamine	70	5.742	5.747	(1.070)	559009	96.9176	96.9176
32 Acetophenone	105	5.747	5.752	(1.071)	1108760	94.0143	94.0143
33 Hexachloroethane	117	5.843	5.848	(1.089)	422847	105.582	105.582
37 Nitrobenzene	77	5.922	5.928	(1.104)	901314	102.111	102.111
40 Isophorone	82	6.124	6.130	(0.931)	1374039	95.7717	95.7717
41 2-Nitrophenol	139	6.225	6.225	(0.947)	404317	101.075	101.075
42 2,4-Dimethylphenol	107	6.215	6.220	(0.945)	792424	96.0602	96.0602
43 Bis(2-chloroethoxy)methane	93	6.305	6.310	(0.959)	883640	98.5914	98.5914
45 Benzoic acid	122	6.300	6.321	(0.958)	336173	85.9051	85.9051
46 2,4-Dichlorophenol	162	6.443	6.449	(0.980)	633696	96.0386	96.0386
47 1,2,4-Trichlorobenzene	180	6.528	6.534	(0.993)	764553	98.7816	98.7816
50 Naphthalene	128	6.597	6.603	(1.003)	2422351	96.0907	96.0907
51 4-Chloroaniline	127	6.656	6.666	(1.012)	721812	81.3040	81.3040
52 Hexachlorobutadiene	225	6.746	6.746	(1.026)	465705	104.338	104.338
59 4-Chloro-3-methylphenol	107	7.102	7.108	(1.080)	647148	95.5046	95.5046
62 2-Methylnaphthalene	142	7.261	7.267	(1.104)	1439503	95.2542	95.2542
64 1-Methylnaphthalene	142	7.373	7.379	(1.121)	1371144	90.1838	90.1838
63 Hexachlorocyclopentadiene	237	7.469	7.469	(0.905)	431904	91.4975	91.4975
67 2,4,6-Trichlorophenol	196	7.548	7.554	(0.915)	430070	101.927	101.927
68 2,4,5-Trichlorophenol	196	7.596	7.602	(0.921)	441564	99.4194	99.4194
71 2-Chloronaphthalene	162	7.729	7.735	(0.937)	1394628	97.4879	97.4879
74 2-Nitroaniline	65	7.846	7.852	(0.951)	348385	93.0654	93.0654
76 Dimethyl phthalate	163	7.995	8.000	(0.969)	1433956	96.4928	96.4928
79 2,6-Dinitrotoluene	165	8.075	8.080	(0.979)	295556	96.1784	96.1784
81 Acenaphthylene	152	8.117	8.123	(0.984)	2097859	91.3113	91.3113
82 3-Nitroaniline	138	8.218	8.224	(0.996)	310057	90.9724	90.9724
84 Acenaphthene	153	8.277	8.282	(1.003)	1368921	93.7267	93.7267
85 2,4-Dinitrophenol	184	8.298	8.303	(1.006)	149489	98.0504	98.0504
86 4-Nitrophenol	109	8.346	8.346	(1.012)	232159	97.8528	97.8528
87 2,4-Dinitrotoluene	165	8.420	8.426	(1.021)	404142	97.7293	97.7293
88 Dibenzofuran	168	8.409	8.415	(1.019)	1955021	97.6394	97.6394
93 Diethyl phthalate	149	8.590	8.596	(1.041)	1506162	98.6570	98.6570
95 4-Chlorophenyl phenyl ether	204	8.675	8.681	(1.052)	769374	93.8762	93.8762
96 Fluorene	166	8.707	8.712	(1.055)	1454542	93.9386	93.9386
97 4-Nitroaniline	138	8.750	8.755	(1.061)	319640	96.5837	96.5837
99 4,6-Dinitro-2-methylphenol	198	8.765	8.776	(1.062)	230316	90.6262	90.6262

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/L)
101 N-nitrosodiphenylamine	169	8.781	8.787	(1.064)	1104659	103.680	103.680
102 Azobenzene	77	8.808	8.813	(1.068)	1569517	104.085	104.085
108 4-Bromophenyl phenyl ether	248	9.079	9.085	(0.958)	382618	97.1235	97.1235
110 Hexachlorobenzene	284	9.228	9.233	(0.974)	380201	97.6059	97.6059
113 Pentachlorophenol	266	9.366	9.377	(0.988)	237932	107.126	107.126
118 Phenanthrene	178	9.499	9.510	(1.002)	2048784	94.0424	94.0424
122 Anthracene	178	9.536	9.547	(1.006)	2049151	96.5965	96.5965
123 Carbazole	167	9.653	9.669	(1.018)	2129004	105.434	105.434
125 Di-n-butyl phthalate	149	9.881	9.892	(1.043)	2546819	110.798	110.798
130 Fluoranthene	202	10.466	10.488	(1.104)	2615379	106.617	106.617
131 Benzidine	184	10.535	10.562	(0.902)	274073	87.0416	87.0416
132 Pyrene	202	10.657	10.689	(0.912)	2596936	86.3126	86.3126
137 Butyl benzyl phthalate	149	11.098	11.141	(0.950)	1262216	103.496	103.496
140 3,3'-Dichlorobenzidine	252	11.609	11.662	(0.994)	1006103	105.717	105.716
141 Benzo(a)anthracene	228	11.662	11.715	(0.998)	2780245	97.4329	97.4329(H)
144 Chrysene	228	11.710	11.758	(1.002)	2974128	106.668	106.668
143 Bis(2-ethylhexyl) phthalate	149	11.550	11.598	(0.989)	1861614	101.389	101.388(H)
146 Di-n-octyl phthalate	149	12.129	12.188	(1.038)	3315785	98.2618	98.2618(H)
147 Benzo(b)fluoranthene	252	12.847	12.906	(0.961)	3128406	103.216	103.216(H)
148 Benzo(k)fluoranthene	252	12.873	12.937	(0.963)	2947000	92.1240	92.1240
150 Benzo(a)pyrene	252	13.299	13.363	(0.994)	2758611	101.092	101.092
155 Indeno(1,2,3-cd)pyrene	276	15.185	15.260	(1.135)	3349090	105.784	105.784
156 Dibenz(a,h)anthracene	278	15.169	15.244	(1.134)	3085064	114.371	114.371
157 Benzo(g,h,i)perylene	276	15.749	15.818	(1.178)	2880473	104.946	104.946
168 Methyl Styrene	118	5.120	5.125	(0.954)	919102	95.4581	95.4581
202 Alachlor	188	9.791	9.807	(1.033)	300674	110.827	110.827
204 Atrazine	200	9.207	9.212	(0.971)	154718	592.491	592.491(AQR)
205 Caprolactam	55	6.974	6.991	(1.061)	184151	87.5915	87.5915
207 2,3-Dichlorobenzeneamine	161	7.570	7.570	(0.918)	687914	92.1194	92.1194
206 Decane	43	5.157	5.162	(0.961)	602170	92.9603	92.9603
213 n-Dodecane	43	6.475	6.480	(0.785)	598087	100.545	100.545
210 Tetradecane	43	7.602	7.607	(0.921)	561811	98.1643	98.1643
209 Hexadecane	57	Compound Not Detected.					
208 n-Octadecane	85	9.244	9.249	(0.975)	416833	92.5556	92.5556
211 n-Eicosane	43	9.892	9.908	(1.199)	534279	105.853	105.853
212 n-docosane	43	10.482	10.509	(1.271)	512920	131.211	131.211(R)

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.
- H - Operator selected an alternate compound hit.

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2110.d  
 Lab Smp Id: HSL 01002ndSrc  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kiddd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 11:58  
 Client Smp ID: HSL\_01002ndSrc  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	340571	170286	681142	285862	-16.06
49 Naphthalene-d8	1226615	613308	2453230	1025063	-16.43
83 Acenaphthene-d10	656132	328066	1312264	536929	-18.17
117 Phenanthrene-d10	1163805	581902	2327610	951379	-18.25
142 Chrysene-d12	1266300	633150	2532600	1211030	-4.36
151 Perylene-d12	1208372	604186	2416744	1130746	-6.42

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	-0.01
49 Naphthalene-d8	6.58	6.08	7.08	6.58	-0.09
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	-0.01
117 Phenanthrene-d10	9.49	8.99	9.99	9.48	-0.12
142 Chrysene-d12	11.74	11.24	12.24	11.68	-0.46
151 Perylene-d12	13.44	12.94	13.94	13.37	-0.52

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.

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RECOVERY REPORT

Client Name: Client SDG: 052904  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: HSL\_01002ndSrc Client Smp ID: HSL\_01002ndSrc  
 Level: LOW Operator: kiddd  
 Data Type: MS DATA SampleType: SSV  
 SpikeList File: HSLSSV.spk Quant Type: ISTD  
 Sublist File: HSLSSV.sub  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
4 N-Nitrosodimethyla	100.000	96.5324	96.53	75-125
15 Phenol	100.000	94.6757	94.68	75-125
18 Bis(2-chloroethyl)	100.000	113.986	113.99	75-125
20 2-Chlorophenol	100.000	96.1862	96.19	75-125
21 1,3-Dichlorobenzen	100.000	100.094	100.09	75-125
23 1,4-Dichlorobenzen	100.000	99.9569	99.96	75-125
25 1,2-Dichlorobenzen	100.000	100.950	100.95	75-125
28 2,2'-oxybis(1-chlo	100.000	96.3718	96.37	75-125
30 N-nitrosodi-n-prop	100.000	96.9176	96.92	75-125
33 Hexachloroethane	100.000	105.582	105.58	75-125
37 Nitrobenzene	100.000	102.111	102.11	75-125
40 Isophorone	100.000	95.7717	95.77	75-125
41 2-Nitrophenol	100.000	101.075	101.08	75-125
42 2,4-Dimethylphenol	100.000	96.0602	96.06	75-125
43 Bis(2-chloroethoxy	100.000	98.5914	98.59	75-125
46 2,4-Dichlorophenol	100.000	96.0386	96.04	75-125
47 1,2,4-Trichloroben	100.000	98.7816	98.78	75-125
50 Naphthalene	100.000	96.0907	96.09	75-125
52 Hexachlorobutadien	100.000	104.338	104.34	75-125
59 4-Chloro-3-methylp	100.000	95.5046	95.50	75-125
63 Hexachlorocyclopen	100.000	91.4975	91.50	75-125
67 2,4,6-Trichlorophe	100.000	101.927	101.93	75-125
71 2-Chloronaphthalen	100.000	97.4879	97.49	75-125
76 Dimethyl phthalate	100.000	96.4928	96.49	75-125
79 2,6-Dinitrotoluene	100.000	96.1784	96.18	75-125
81 Acenaphthylene	100.000	91.3113	91.31	75-125
84 Acenaphthene	100.000	93.7267	93.73	75-125
85 2,4-Dinitrophenol	100.000	98.0504	98.05	75-125
86 4-Nitrophenol	100.000	97.8528	97.85	75-125
87 2,4-Dinitrotoluene	100.000	97.7293	97.73	75-125
93 Diethyl phthalate	100.000	98.6570	98.66	75-125
95 4-Chlorophenyl phe	100.000	93.8762	93.88	75-125
96 Fluorene	100.000	93.9386	93.94	75-125

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
99 4,6-Dinitro-2-meth	100.000	90.6262	90.63	75-125
101 N-nitrosodiphenyla	100.000	103.680	103.68	75-125
102 Azobenzene	100.000	104.085	104.09	75-125
108 4-Bromophenyl phen	100.000	97.1235	97.12	75-125
110 Hexachlorobenzene	100.000	97.6059	97.61	75-125
113 Pentachlorophenol	100.000	107.126	107.13	75-125
118 Phenanthrene	100.000	94.0424	94.04	75-125
122 Anthracene	100.000	96.5965	96.60	75-125
125 Di-n-butyl phthala	100.000	110.798	110.80	75-125
130 Fluoranthene	100.000	106.617	106.62	75-125
131 Benzidine	100.000	87.0416	87.04	45-155
132 Pyrene	100.000	86.3126	86.31	75-125
137 Butyl benzyl phtha	100.000	103.496	103.50	75-125
140 3,3'-Dichlorobenzi	100.000	105.716	105.72	75-125
141 Benzo(a)anthracene	100.000	97.4329	97.43	75-125
144 Chrysene	100.000	106.668	106.67	75-125
143 Bis(2-ethylhexyl)	100.000	101.388	101.39	75-125
146 Di-n-octyl phthala	100.000	98.2618	98.26	75-125
147 Benzo(b)fluoranthene	100.000	103.216	103.22	75-125
148 Benzo(k)fluoranthene	100.000	92.1240	92.12	75-125
150 Benzo(a)pyrene	100.000	101.092	101.09	75-125
155 Indeno(1,2,3-cd)py	100.000	105.784	105.78	75-125
156 Dibenz(a,h)anthrac	100.000	114.371	114.37	75-125
157 Benzo(g,h,i)perylene	100.000	104.946	104.95	75-125
5 Pyridine	100.000	105.634	105.63	75-125
16 Aniline	100.000	59.6212	59.62*	75-125
24 Benzyl alcohol	100.000	91.6965	91.70	75-125
26 2-Methylphenol	100.000	92.0172	92.02	75-125
29 4-Methylphenol	100.000	93.3685	93.37	75-125
45 Benzoic acid	100.000	85.9051	85.91	75-125
51 4-Chloroaniline	100.000	81.3040	81.30	75-125
62 2-Methylnaphthalene	100.000	95.2542	95.25	75-125
68 2,4,5-Trichlorophenol	100.000	99.4194	99.42	75-125
74 2-Nitroaniline	100.000	93.0654	93.07	75-125
82 3-Nitroaniline	100.000	90.9724	90.97	75-125
88 Dibenzofuran	100.000	97.6394	97.64	75-125
97 4-Nitroaniline	100.000	96.5837	96.58	75-125
123 Carbazole	100.000	105.434	105.43	75-125
202 Alachlor	100.000	110.827	110.83	75-125
204 Atrazine	100.000	592.491	592.49*	75-125
205 Caprolactam	100.000	87.5915	87.59	75-125
207 2,3-Dichlorobenzene	100.000	92.1194	92.12	75-125
206 Decane	100.000	92.9603	92.96	75-125
213 n-Dodecane	100.000	100.545	100.55	75-125
210 Tetradecane	100.000	98.1643	98.16	75-125
208 n-Octadecane	100.000	92.5556	92.56	75-125
211 n-Eicosane	100.000	105.853	105.85	75-125

narrate

narrate



SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
212 n-docosane	100.000	131.211	131.21*	75-125

*11/11/04*

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	100.000	97.9760	97.98	75-125
\$ 70 2-Fluorobiphenyl	100.000	92.6255	92.63	75-125
\$ 133 Terphenyl-d14	100.000	97.4043	97.40	75-125
\$ 10 2-Fluorophenol	150.000	146.554	97.70	75-125
\$ 14 Phenol-d5	150.000	141.215	94.14	75-125
\$ 103 2,4,6-Tribromophen	150.000	155.981	103.99	75-125

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TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:  
Lab Smp Id: HSL 01002ndSrc  
Operator : kidd  
Sample Location:  
Sample Matrix: WATER  
Analysis Type: SV

Client SDG: 052904  
Client Smp ID: HSL 01002ndSrc  
Sample Date: 30-MAR-1998  
Sample Point:  
Date Received: 31-MAR-1998 00:00  
Level: LOW

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

Data File: /chem/P.i/052904.b/p2110.d

Date : 29-MAY-2004 19:25

Client ID: HSL\_01002ndSrc

Sample Info: HSL\_01002ndSrc,BNA1346,P:050604,E:113004

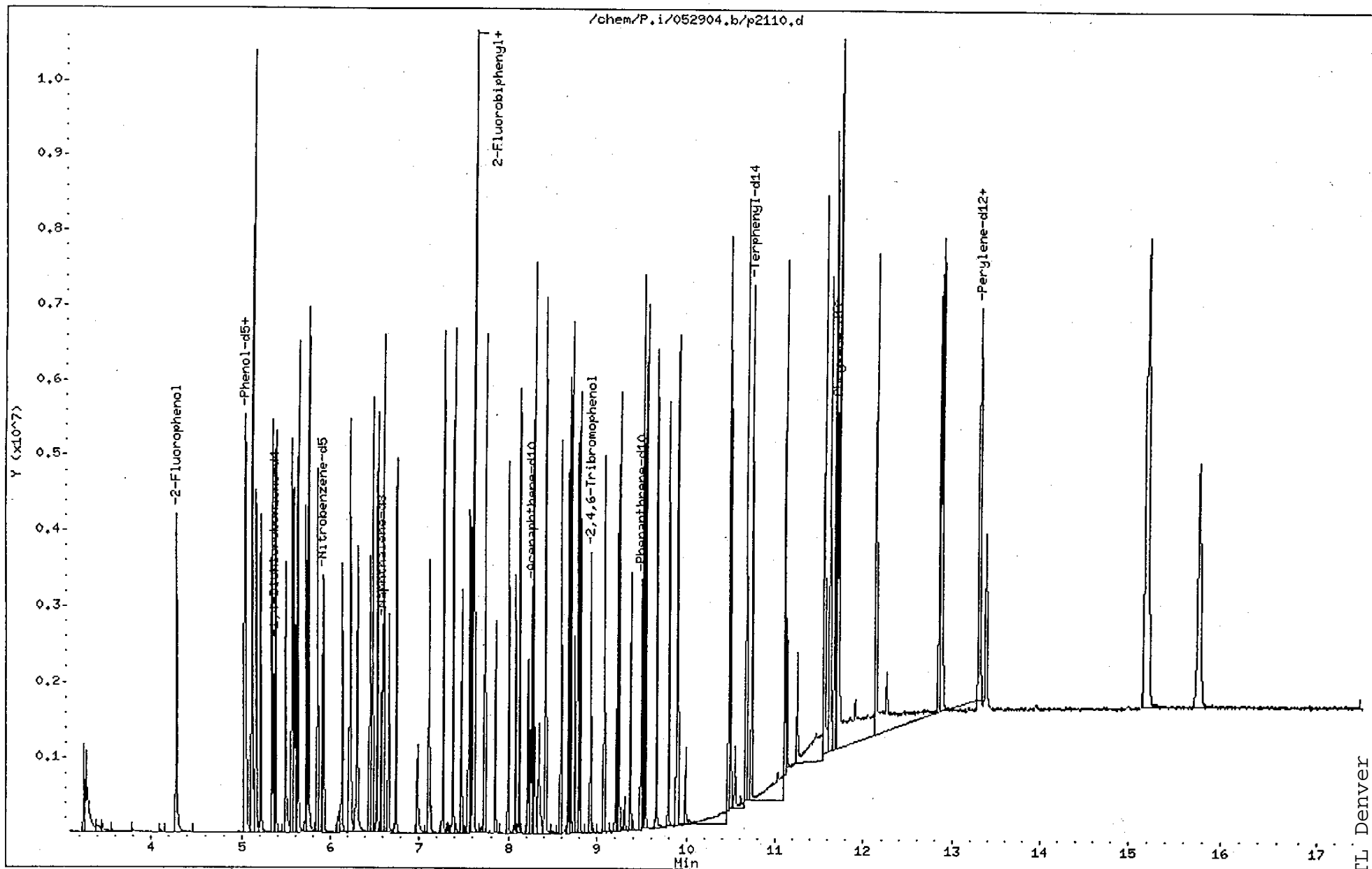
Volume Injected (uL): 0.5

Column phase: Rtx-5ms 30m 0.5um

Instrument: P.i

Operator: kidd

Column diameter: 0.25



*ML*  
06-03-04

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BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/060304.b/p2113.d  
 Lab Smp Id: HSL\_0100SSV Client Smp ID: HSL\_0100SSV  
 Inj Date : 03-JUN-2004 05:49  
 Operator : kiddd Inst ID: P.i  
 Smp Info : HSL\_0100SSV,BNA1346,P:050604,E:113004  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/060304.b/8270C.m  
 Meth Date : 03-Jun-2004 09:18 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 18:33 Cal File: p2108.d  
 Als bottle: 3 QC Sample: SSV  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: HSLSSV.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/L)
* 22 1,4-Dichlorobenzene-d4	152	5.364	5.364	(1.000)	229079	40.0000	
* 49 Naphthalene-d8	136	6.576	6.581	(1.000)	858075	40.0000	
* 83 Acenaphthene-d10	164	8.250	8.250	(1.000)	481827	40.0000	
* 117 Phenanthrene-d10	188	9.483	9.488	(1.000)	878291	40.0000	
* 142 Chrysene-d12	240	11.736	11.731	(1.000)	1080734	40.0000	
* 151 Perylene-d12	264	13.437	13.432	(1.000)	995332	40.0000	
\$ 36 Nitrobenzene-d5	82	5.901	5.907	(1.100)	751952	106.866	106.866
\$ 70 2-Fluorobiphenyl	172	7.607	7.612	(0.922)	1445187	94.2467	94.2467
\$ 133 Terphenyl-d14	244	10.758	10.753	(0.917)	1560524	99.6680	99.6680
\$ 10 2-Fluorophenol	112	4.285	4.286	(0.799)	968410	144.207	144.207
\$ 14 Phenol-d5	99	5.035	5.040	(0.939)	1174994	146.292	146.292
\$ 103 2,4,6-Tribromophenol	330	8.930	8.936	(0.942)	202043	157.508	157.508
5 Pyridine	79	3.286	3.287	(0.613)	507459	87.5536	87.5536
4 N-Nitrosodimethylamine	74	3.254	3.260	(0.607)	359109	90.0030	90.0030
16 Aniline	93	5.104	5.109	(0.951)	441601	64.3297	64.3297(R)

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL ( ug/L)
15 Phenol	94	5.045	5.051	(0.941)	836492	98.5178	98.5178
18 Bis(2-chloroethyl) ether	93	5.120	5.125	(0.954)	1012094	117.372	117.372
20 2-Chlorophenol	128	5.210	5.210	(0.971)	702205	97.7996	97.7996
21 1,3-Dichlorobenzene	146	5.332	5.338	(0.994)	790018	100.515	100.515
23 1,4-Dichlorobenzene	146	5.380	5.380	(1.003)	793791	98.5505	98.5505
24 Benzyl alcohol	108	5.486	5.492	(1.023)	396403	96.1151	96.1151
25 1,2-Dichlorobenzene	146	5.555	5.561	(1.036)	745659	99.9543	99.9543
26 2-Methylphenol	108	5.582	5.588	(1.041)	586083	93.0085	93.0085
27 1H-Indene	116	5.625	5.630	(1.049)	1170820	96.4745	96.4745
28 2,2'-oxybis(1-chloropropane)	45	5.609	5.614	(1.046)	585383	95.0265	95.0264
29 4-Methylphenol	108	5.710	5.715	(1.064)	642829	99.4288	99.4288
30 N-nitrosodi-n-propylamine	70	5.741	5.747	(1.070)	482721	104.436	104.436
32 Acetophenone	105	5.747	5.752	(1.071)	946952	100.197	100.197
33 Hexachloroethane	117	5.842	5.848	(1.089)	345306	107.593	107.593
37 Nitrobenzene	77	5.922	5.928	(1.104)	755921	106.867	106.867
40 Isophorone	82	6.124	6.130	(0.931)	1236230	102.935	102.935
41 2-Nitrophenol	139	6.225	6.225	(0.947)	352765	105.350	105.350
42 2,4-Dimethylphenol	107	6.214	6.220	(0.945)	706628	102.330	102.330
43 Bis(2-chloroethoxy)methane	93	6.305	6.310	(0.959)	757383	100.950	100.950
45 Benzoic acid	122	6.299	6.321	(0.958)	317304	96.8628	96.8628
46 2,4-Dichlorophenol	162	6.443	6.449	(0.980)	549331	99.4545	99.4545
47 1,2,4-Trichlorobenzene	180	6.528	6.534	(0.993)	646892	99.8448	99.8448
50 Naphthalene	128	6.597	6.603	(1.003)	2060240	97.6309	97.6309
51 4-Chloroaniline	127	6.656	6.666	(1.012)	652349	87.7795	87.7795
52 Hexachlorobutadiene	225	6.746	6.746	(1.026)	394545	105.598	105.598
59 4-Chloro-3-methylphenol	107	7.102	7.108	(1.080)	600749	105.910	105.910
62 2-Methylnaphthalene	142	7.261	7.267	(1.104)	1267995	100.234	100.234
64 1-Methylnaphthalene	142	7.373	7.379	(1.121)	1200076	94.2930	94.2930
63 Hexachlorocyclopentadiene	237	7.469	7.469	(0.905)	377015	89.0033	89.0033
67 2,4,6-Trichlorophenol	196	7.548	7.554	(0.915)	394843	104.280	104.280
68 2,4,5-Trichlorophenol	196	7.596	7.602	(0.921)	424829	106.590	106.590
71 2-Chloronaphthalene	162	7.729	7.735	(0.937)	1254694	97.7363	97.7363
74 2-Nitroaniline	65	7.846	7.852	(0.951)	340734	101.013	101.013
76 Dimethyl phthalate	163	7.995	8.000	(0.969)	1368799	102.642	102.642
79 2,6-Dinitrotoluene	165	8.074	8.080	(0.979)	282039	102.012	102.012
81 Acenaphthylene	152	8.117	8.123	(0.984)	1959474	95.0416	95.0416
82 3-Nitroaniline	138	8.213	8.224	(0.995)	299896	97.6678	97.6678
84 Acenaphthene	153	8.276	8.282	(1.003)	1260886	96.2025	96.2025
85 2,4-Dinitrophenol	184	8.298	8.303	(1.006)	147419	105.492	105.492
86 4-Nitrophenol	109	8.345	8.346	(1.012)	224776	104.741	104.741
87 2,4-Dinitrotoluene	165	8.420	8.426	(1.021)	381053	102.459	102.459
88 Dibenzofuran	168	8.409	8.415	(1.019)	1834301	102.087	102.087
93 Diethyl phthalate	149	8.590	8.596	(1.041)	1430400	104.409	104.409
95 4-Chlorophenyl phenyl ether	204	8.675	8.681	(1.052)	732630	99.6159	99.6159
96 Fluorene	166	8.707	8.712	(1.055)	1379097	99.2518	99.2518
97 4-Nitroaniline	138	8.749	8.755	(1.061)	291934	98.1967	98.1967
99 4,6-Dinitro-2-methylphenol	198	8.765	8.776	(1.062)	222198	96.7507	96.7507

Compounds	QUANT SIG				CONCENTRATIONS		
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL ( ug/L)
101 N-nitrosodiphenylamine	169	8.781	8.787	(1.064)	1035629	108.317	108.317
102 Azobenzene	77	8.808	8.813	(1.068)	1522460	112.511	112.511
108 4-Bromophenyl phenyl ether	248	9.084	9.085	(0.958)	355859	97.8480	97.8480
110 Hexachlorobenzene	284	9.228	9.233	(0.973)	348909	97.0264	97.0264
113 Pentachlorophenol	266	9.371	9.377	(0.988)	220086	107.318	107.318
118 Phenanthrene	178	9.504	9.510	(1.002)	1912284	95.0813	95.0813
122 Anthracene	178	9.541	9.547	(1.006)	1949855	99.5646	99.5646
123 Carbazole	167	9.663	9.669	(1.019)	1912732	102.606	102.606
125 Di-n-butyl phthalate	149	9.892	9.892	(1.043)	2396803	112.948	112.948
130 Fluoranthene	202	10.487	10.488	(1.106)	2386741	105.394	105.394
131 Benzidine	184	10.562	10.562	(0.900)	258249	91.9042	91.9042
132 Pyrene	202	10.689	10.689	(0.911)	2394201	89.1682	89.1682
137 Butyl benzyl phthalate	149	11.141	11.141	(0.949)	1154689	106.094	106.094
140 3,3'-Dichlorobenzidine	252	11.662	11.662	(0.994)	878200	103.402	103.402
141 Benzo(a)anthracene	228	11.715	11.715	(0.998)	2511240	98.6159	98.6159
144 Chrysene	228	11.763	11.758	(1.002)	2661377	106.959	106.958
143 Bis(2-ethylhexyl) phthalate	149	11.603	11.598	(0.989)	1678610	102.419	102.419
146 Di-n-octyl phthalate	149	12.188	12.188	(1.038)	3017764	100.130	100.130
147 Benzo(b)fluoranthene	252	12.905	12.906	(0.960)	2653767	99.4678	99.4678
148 Benzo(k)fluoranthene	252	12.937	12.937	(0.963)	2736774	97.1916	97.1916
150 Benzo(a)pyrene	252	13.362	13.363	(0.994)	2450737	102.028	102.028
155 Indeno(1,2,3-cd)pyrene	276	15.249	15.260	(1.135)	2963566	106.342	106.342
156 Dibenz(a,h)anthracene	278	15.238	15.244	(1.134)	2701125	113.761	113.761
157 Benzo(g,h,i)perylene	276	15.807	15.818	(1.176)	2522629	104.413	104.413
168 Methyl Styrene	118	5.120	5.125	(0.954)	730569	94.6851	94.6851
202 Alachlor	188	9.802	9.807	(1.034)	287225	114.680	114.680
204 Atrazine	200	9.206	9.212	(0.971)	140674	583.539	583.539 (AQR)
205 Caprolactam	55	6.974	6.991	(1.061)	169301	95.6205	95.6205
207 2,3-Dichlorobenzeneamine	161	7.570	7.570	(0.918)	638184	95.2333	95.2333
206 Decane	43	5.157	5.162	(0.961)	481449	92.7470	92.7470
213 n-Dodecane	43	6.475	6.480	(0.785)	488673	91.5463	91.5463
210 Tetradecane	43	7.601	7.607	(0.921)	489873	95.3834	95.3834
209 Hexadecane	57	Compound Not Detected.					
208 n-Octadecane	85	9.249	9.249	(0.975)	388405	93.4202	93.4202
211 n-Eicosane	43	9.903	9.908	(1.200)	506526	111.831	111.831
212 n-docosane	43	10.508	10.509	(1.274)	491777	140.190	140.190 (R)

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2113.d  
 Lab Smp Id: HSL 0100SSV  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kidd  
 Method File: /chem/P.i/060304.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 18:33  
 Client Smp ID: HSL\_0100SSV  
 Level: LOW  
 Sample Type: WATER

Test Mode:

Use Last Continuing Calibrator.

22	1,4-Dichlorobenze	319629	159814	639258	229079	-28.33
49	Naphthalene-d8	1159919	579960	2319838	858075	-26.02
83	Acenaphthene-d10	601946	300973	1203892	481827	-19.96
117	Phenanthrene-d10	1078476	539238	2156952	878291	-18.56
142	Chrysene-d12	1321444	660722	2642888	1080734	-18.22
151	Perylene-d12	1069281	534640	2138562	995332	-6.92

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	-0.01
49 Naphthalene-d8	6.58	6.08	7.08	6.58	-0.09
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	0.00
117 Phenanthrene-d10	9.49	8.99	9.99	9.48	-0.06
142 Chrysene-d12	11.73	11.23	12.23	11.74	0.04
151 Perylene-d12	13.43	12.93	13.93	13.44	0.04

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.

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RECOVERY REPORT

Client Name: Client SDG: 060304  
 Sample Matrix: LIQUID Fraction: SV  
 Lab Smp Id: HSL\_0100SSV Client Smp ID: HSL\_0100SSV  
 Level: LOW Operator: kiddd  
 Data Type: MS DATA SampleType: SSV  
 SpikeList File: HSLSSV.spk Quant Type: ISTD  
 Sublist File: HSLSSV.sub  
 Method File: /chem/P.i/060304.b/8270C.m  
 Misc Info:

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
4 N-Nitrosodimethyla	100.000	90.0030	90.00	75-125
15 Phenol	100.000	98.5178	98.52	75-125
18 Bis(2-chloroethyl)	100.000	117.372	117.37	75-125
20 2-Chlorophenol	100.000	97.7996	97.80	75-125
21 1,3-Dichlorobenzen	100.000	100.515	100.52	75-125
23 1,4-Dichlorobenzen	100.000	98.5505	98.55	75-125
25 1,2-Dichlorobenzen	100.000	99.9543	99.95	75-125
28 2,2'-oxybis(1-chlo	100.000	95.0264	95.03	75-125
30 N-nitrosodi-n-prop	100.000	104.436	104.44	75-125
33 Hexachloroethane	100.000	107.593	107.59	75-125
37 Nitrobenzene	100.000	106.867	106.87	75-125
40 Isophorone	100.000	102.935	102.93	75-125
41 2-Nitrophenol	100.000	105.350	105.35	75-125
42 2,4-Dimethylphenol	100.000	102.330	102.33	75-125
43 Bis(2-chloroethoxy	100.000	100.950	100.95	75-125
46 2,4-Dichlorophenol	100.000	99.4545	99.45	75-125
47 1,2,4-Trichloroben	100.000	99.8448	99.84	75-125
50 Naphthalene	100.000	97.6309	97.63	75-125
52 Hexachlorobutadien	100.000	105.598	105.60	75-125
59 4-Chloro-3-methylp	100.000	105.910	105.91	75-125
63 Hexachlorocyclopen	100.000	89.0033	89.00	75-125
67 2,4,6-Trichlorophe	100.000	104.280	104.28	75-125
71 2-Chloronaphthalen	100.000	97.7363	97.74	75-125
76 Dimethyl phthalate	100.000	102.642	102.64	75-125
79 2,6-Dinitrotoluene	100.000	102.012	102.01	75-125
81 Acenaphthylene	100.000	95.0416	95.04	75-125
84 Acenaphthene	100.000	96.2025	96.20	75-125
85 2,4-Dinitrophenol	100.000	105.492	105.49	75-125
86 4-Nitrophenol	100.000	104.741	104.74	75-125
87 2,4-Dinitrotoluene	100.000	102.459	102.46	75-125
93 Diethyl phthalate	100.000	104.409	104.41	75-125
95 4-Chlorophenyl phe	100.000	99.6159	99.62	75-125
96 Fluorene	100.000	99.2518	99.25	75-125



SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
99 4,6-Dinitro-2-meth	100.000	96.7507	96.75	75-125
101 N-nitrosodiphenyla	100.000	108.317	108.32	75-125
102 Azobenzene	100.000	112.511	112.51	75-125
108 4-Bromophenyl phen	100.000	97.8480	97.85	75-125
110 Hexachlorobenzene	100.000	97.0264	97.03	75-125
113 Pentachlorophenol	100.000	107.318	107.32	75-125
118 Phenanthrene	100.000	95.0813	95.08	75-125
122 Anthracene	100.000	99.5646	99.56	75-125
125 Di-n-butyl phthala	100.000	112.948	112.95	75-125
130 Fluoranthene	100.000	105.394	105.39	75-125
131 Benzidine	100.000	91.9042	91.90	45-155
132 Pyrene	100.000	89.1682	89.17	75-125
137 Butyl benzyl phtha	100.000	106.094	106.09	75-125
140 3,3'-Dichlorobenzi	100.000	103.402	103.40	75-125
141 Benzo(a)anthracene	100.000	98.6159	98.62	75-125
144 Chrysene	100.000	106.958	106.96	75-125
143 Bis(2-ethylhexyl)	100.000	102.419	102.42	75-125
146 Di-n-octyl phthala	100.000	100.130	100.13	75-125
147 Benzo(b)fluoranthe	100.000	99.4678	99.47	75-125
148 Benzo(k)fluoranthe	100.000	97.1916	97.19	75-125
150 Benzo(a)pyrene	100.000	102.028	102.03	75-125
155 Indeno(1,2,3-cd)py	100.000	106.342	106.34	75-125
156 Dibenz(a,h)anthrac	100.000	113.761	113.76	75-125
157 Benzo(g,h,i)peryle	100.000	104.413	104.41	75-125
5 Pyridine	100.000	87.5536	87.55	75-125
16 Aniline	100.000	64.3297	64.33*	75-125
24 Benzyl alcohol	100.000	96.1151	96.12	75-125
26 2-Methylphenol	100.000	93.0085	93.01	75-125
29 4-Methylphenol	100.000	99.4288	99.43	75-125
45 Benzoic acid	100.000	96.8628	96.86	75-125
51 4-Chloroaniline	100.000	87.7795	87.78	75-125
62 2-Methylnaphthalen	100.000	100.234	100.23	75-125
68 2,4,5-Trichlorophe	100.000	106.590	106.59	75-125
74 2-Nitroaniline	100.000	101.013	101.01	75-125
82 3-Nitroaniline	100.000	97.6678	97.67	75-125
88 Dibenzofuran	100.000	102.087	102.09	75-125
97 4-Nitroaniline	100.000	98.1967	98.20	75-125
123 Carbazole	100.000	102.606	102.61	75-125
202 Alachlor	100.000	114.680	114.68	75-125
204 Atrazine	100.000	583.539	583.54*	75-125
205 Caprolactam	100.000	95.6205	95.62	75-125
207 2,3-Dichlorobenzen	100.000	95.2333	95.23	75-125
206 Decane	100.000	92.7470	92.75	75-125
213 n-Dodecane	100.000	91.5463	91.55	75-125
210 Tetradecane	100.000	95.3834	95.38	75-125
208 n-Octadecane	100.000	93.4202	93.42	75-125
211 n-Eicosane	100.000	111.831	111.83	75-125

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
212 n-docosane	100.000	140.190	140.19*	75-125

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	100.000	106.866	106.87	75-125
\$ 70 2-Fluorobiphenyl	100.000	94.2467	94.25	75-125
\$ 133 Terphenyl-d14	100.000	99.6680	99.67	75-125
\$ 10 2-Fluorophenol	150.000	144.207	96.14	75-125
\$ 14 Phenol-d5	150.000	146.292	97.53	75-125
\$ 103 2,4,6-Tribromophen	150.000	157.508	105.01	75-125

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TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:  
Lab Smp Id: HSL 0100SSV  
Operator : kidd  
Sample Location:  
Sample Matrix: WATER  
Analysis Type: SV

Client SDG: 060304  
Client Smp ID: HSL 0100SSV  
Sample Date: 30-MAR-1998  
Sample Point:  
Date Received: 31-MAR-1998 00:00  
Level: LOW

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

Data File: /chem/P,i/060304,b/p2113.d

Date : 03-JUN-2004 05:49

Client ID: HSL\_0100SSV

Sample Info: HSL\_0100SSV,ENA1346,P:050604,E:113004

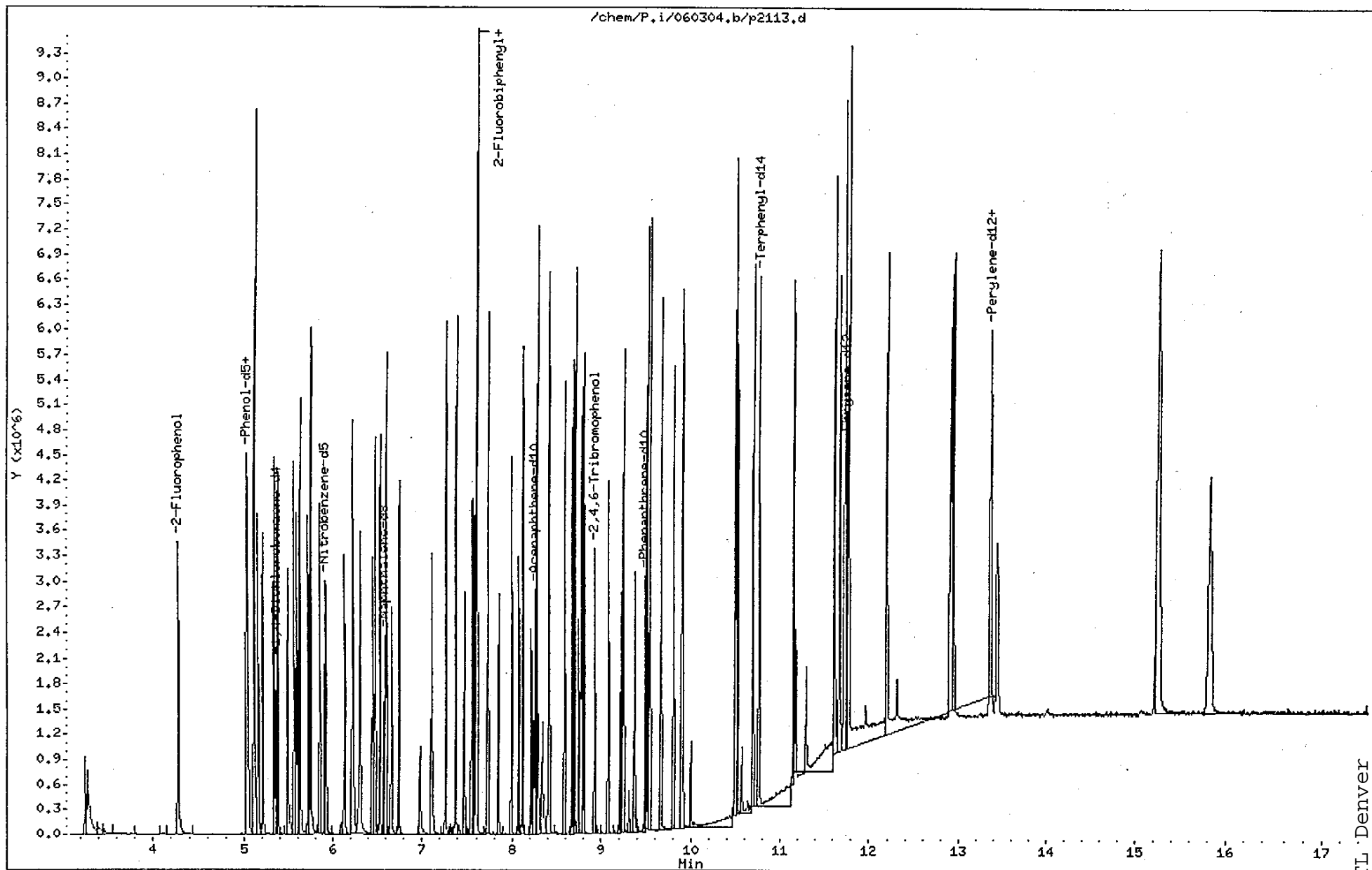
Volume Injected (uL): 0.5

Column phase: Rtx-5ms 30m 0.5um

Instrument: P.i

Operator: kidd

Column diameter: 0.25



GC/MS Initial Calibration Review Checklist

STL Denver

1368

Instrument ID and Date: P 052904, b

Check Method Used: Analysis  625  8270  Other SV AP9  
 524.2  624  8260B  Other VOA

VOA Preparation  5mL  20mL  5035 Low  5035 High  5030 Low  5030 High

Review Items	Level 1			Level 2	Comments
	Yes	No	N/A		
<b>Initial Calibration</b>					
1. BFB/DFTPP meets criteria?	✓			✓	
2. ICAL date and instrument ID verified?	✓				
3. Sufficient number of calibration points used?	✓				
4. Reasons for removal of points documented?	✓				some points removed below RL
5. %RSD or correlation coefficient within method limits?	✓				
6. If RRF used for ICAL, were all compounds within 15% RSD?	✓				List all exceptions below (cpd & RSD)
7. Response factors meet criteria?	✓				
8. Isomeric pairs checked for correct peak assignment?	✓				
9. Data checked for detector saturation?	✓				
10. Standards traceability properly documented?	✓				
11. Manual integrations documented and checked?	✓				
12. 2 <sup>nd</sup> source ICV recovery 75-125% for DoD projects, 65-135% (±55% of expected for poor performers) for non-DoD?	✓			✓	see below

1st Level Reviewer: MLV

Date: 06-03-04

2nd Level Reviewer: JMP

Date: 6/3/04

715% RSD  
 4-Nitroquinoline-1-oxide 51.3  
 Chlorobenzilate 45.1%  
 7,12-Dimethylbenz(a)anthracene 43.1%  
 3-Methylcholanthrene 44.3%  
2nd Source  
 Methyl methanesulfonate 162%  
 1,4-Naphthoquinone 160%

STL Denver

Date : 29-MAY-2004 08:12

Client ID: DFTPP

Instrument: P.i

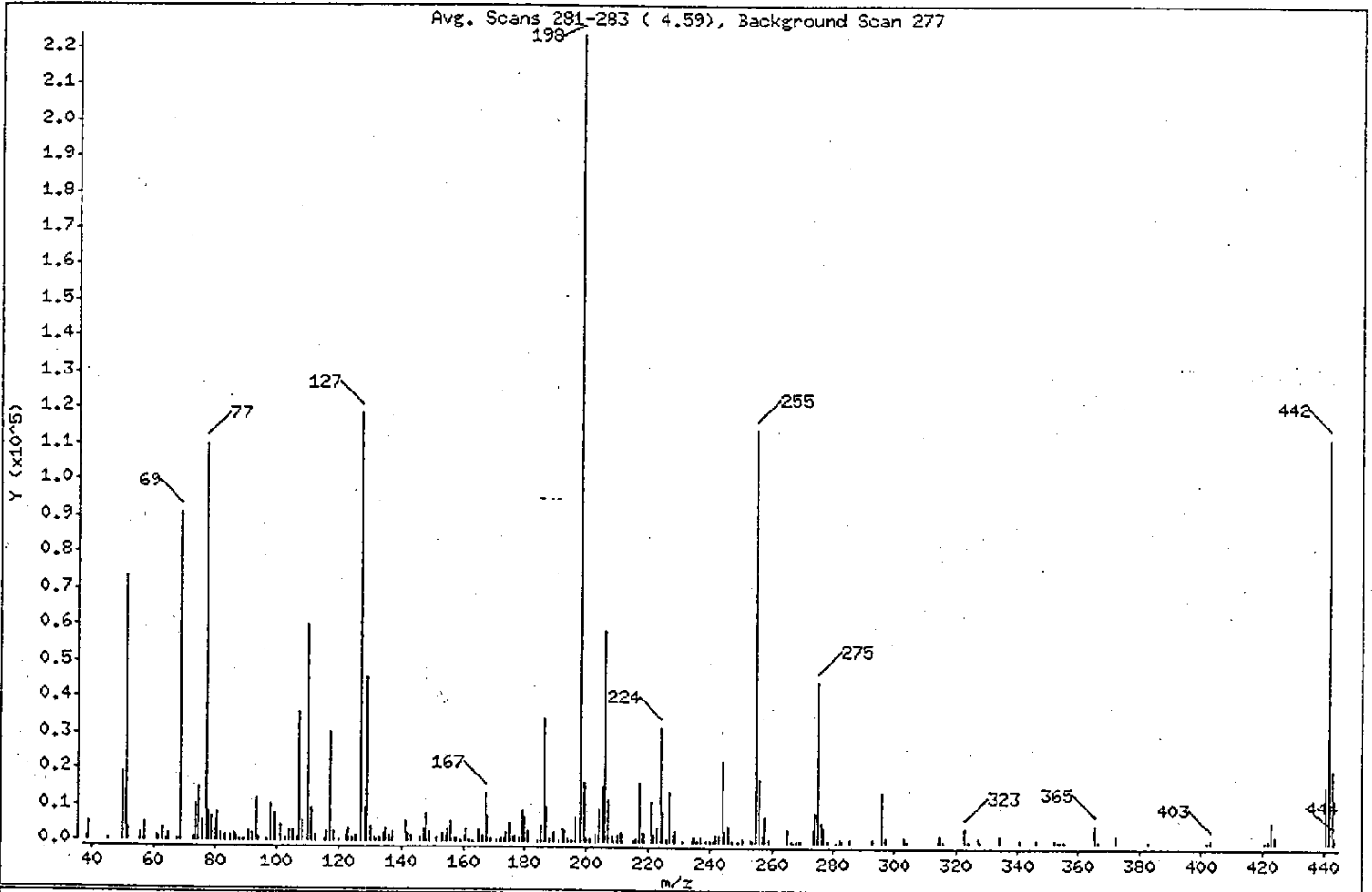
Sample Info: DFTPP,BNA1512,P:041903,E:041905

Operator: kiddd

Column phase: Rtx-5ms

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	* RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	32.83
68	Less than 2.00% of mass 69	0.15 ( 0.37)
69	Mass 69 relative abundance	40.59
70	Less than 2.00% of mass 69	0.00 ( 0.00)
127	40.00 - 60.00% of mass 198	53.19
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.29
275	10.00 - 30.00% of mass 198	20.11
365	Greater than 1.00% of mass 198	2.39
441	Present, but less than mass 443	7.15
442	40.00 - 100.00% of mass 198	50.03
443	17.00 - 23.00% of mass 442	9.19 ( 18.37)

*5/29/04*  
*[Signature]*

Date : 29-MAY-2004 08:12

Client ID: DFTPP

Instrument: P.i

Sample Info: DFTPP,BNA1512,P:041903,E:041905

Operator: kidd

Column phase: Rtx-5ms

Column diameter: 0.25

Data File: p2084.d

Spectrum: Avg. Scans 281-283 ( 4.59), Background Scan 277

Location of Maximum: 198.00.

Number of points: 213

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	855	122.00	1905	188.00	1178	257.00	1872
39.00	4941	123.00	3486	189.00	2796	258.00	7075
45.00	305	124.00	1176	191.00	588	259.00	923
50.00	19096	125.00	1683	192.00	3363	265.00	3639
51.00	73368	127.00	118848	193.00	3236	266.00	455
52.00	3512	129.00	9084	194.00	1021	267.00	249
56.00	1840	129.00	45536	195.00	395	268.00	322
57.00	5150	130.00	4005	196.00	6709	269.00	322
61.00	1712	131.00	821	198.00	223424	273.00	3449
62.00	996	132.00	353	199.00	16284	274.00	7969
63.00	3602	133.00	812	200.00	1073	275.00	44936
64.00	333	134.00	1883	201.00	830	276.00	5630
65.00	2285	135.00	3628	203.00	1945	277.00	4276
68.00	335	136.00	1303	204.00	9026	278.00	515
69.00	90696	137.00	2385	205.00	15270	281.00	9
73.00	1116	141.00	5828	206.00	58408	282.00	926
74.00	10221	142.00	2135	207.00	11597	283.00	452
75.00	15000	143.00	1399	208.00	1494	285.00	906
76.00	5833	146.00	975	209.00	336	293.00	957
77.00	109712	147.00	3781	210.00	1799	296.00	13676
78.00	8308	148.00	7745	211.00	2401	297.00	1795
79.00	6537	149.00	2510	215.00	327	303.00	1558
80.00	5409	151.00	825	216.00	1247	304.00	307
81.00	8002	153.00	1907	217.00	16192	314.00	482
82.00	1901	154.00	1353	218.00	2341	315.00	2072
83.00	1570	155.00	3512	221.00	11054	316.00	396
85.00	1469	156.00	5780	222.00	2003	323.00	3915
86.00	1870	157.00	1028	223.00	4083	324.00	374
87.00	1445	158.00	953	224.00	31888	327.00	1285
88.00	366	159.00	413	225.00	8283	328.00	390
89.00	352	160.00	1737	226.00	881	334.00	2290
91.00	2550	161.00	3538	227.00	14114	341.00	1019
92.00	2081	162.00	424	228.00	2077	346.00	798
93.00	11910	163.00	202	229.00	2996	352.00	1094
94.00	1003	165.00	3295	231.00	617	353.00	333

Date : 29-MAY-2004 08:12

Client ID: DFTPP

Instrument: P.i

Sample Info: DFTPP,BNA1512,P:041903,E:041905

Operator: kiddd

Column phase: Rtx-5ms

Column diameter: 0.25

Data File: p2084.d  
 Spectrum: Avg. Scans 281-283 ( 4.59), Background Scan 277  
 Location of Maximum: 198.00  
 Number of points: 213

m/z	Y	m/z	Y	m/z	Y	m/z	Y
96.00	705	166.00	1382	234.00	432	354.00	489
97.00	332	167.00	13265	235.00	1285	355.00	345
98.00	10333	168.00	7136	236.00	447	365.00	5331
99.00	7664	169.00	969	237.00	1635	366.00	395
101.00	4765	171.00	304	239.00	391	372.00	1956
103.00	809	172.00	851	240.00	301	383.00	445
104.00	2875	173.00	933	241.00	439	402.00	583
105.00	2827	174.00	2571	242.00	1860	403.00	947
106.00	1047	175.00	5341	243.00	1961	421.00	644
107.00	36080	176.00	1414	244.00	22768	422.00	785
108.00	5777	177.00	1781	245.00	2841	423.00	6230
110.00	60056	178.00	993	246.00	4868	424.00	2069
111.00	9372	179.00	8963	247.00	753	441.00	15984
112.00	1332	180.00	6917	249.00	723	442.00	111800
115.00	672	181.00	2893	251.00	1067	443.00	20528
116.00	2320	184.00	459	253.00	878	444.00	2147
117.00	30424	185.00	4412	254.00	527		
118.00	2366	186.00	34344	255.00	113776		
120.00	359	187.00	9916	256.00	17432		



Data File: /chem/P.i/052904.b/p2084.d

Page 1

Date : 29-MAY-2004 08:12

Client ID: DFTPP

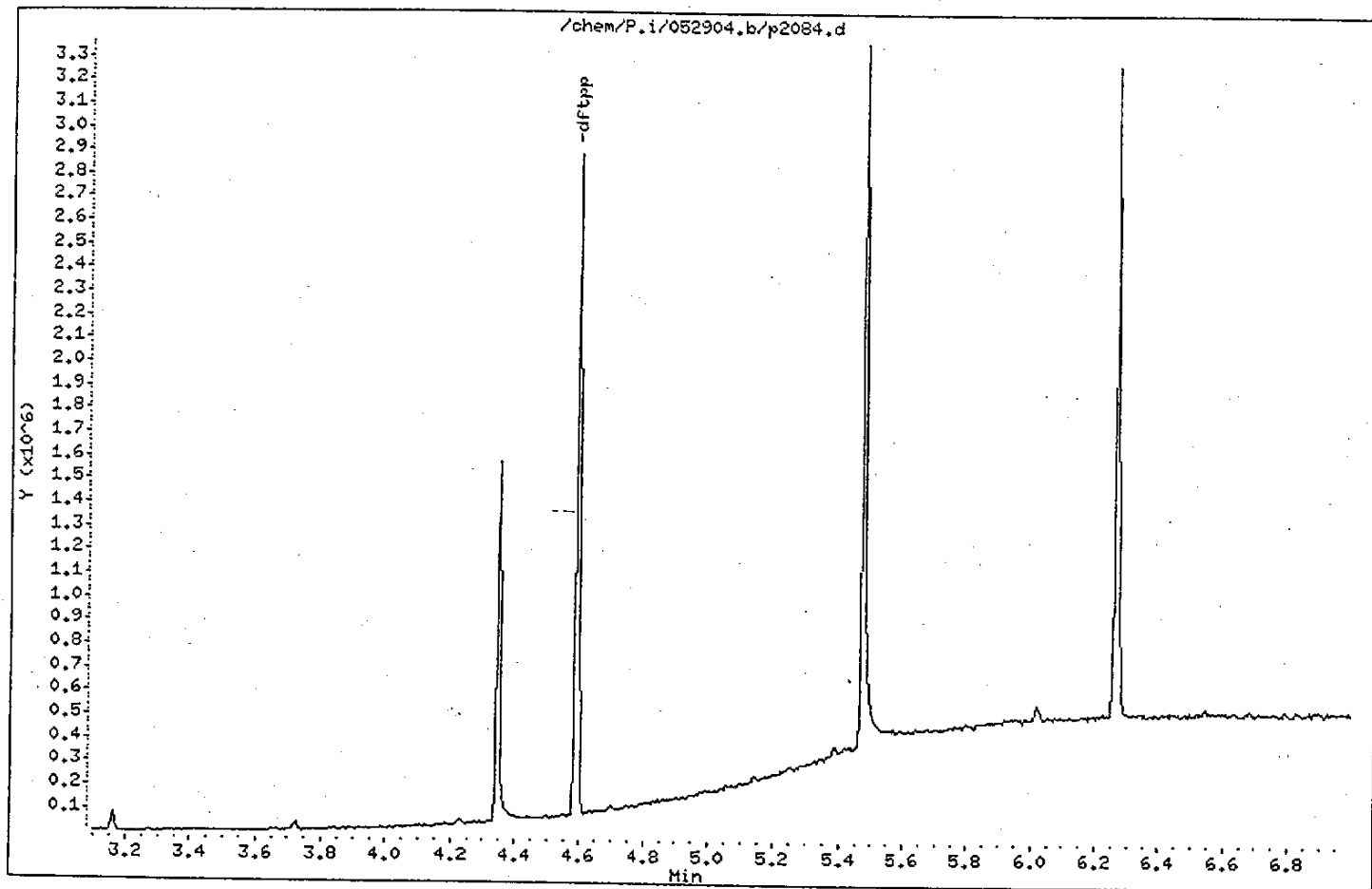
Instrument: P.i

Sample Info: DFTPP,BNA1512,P:041903,E:041905

Operator: kidd

Column phase: Rtx-5ms

Column diameter: 0.25

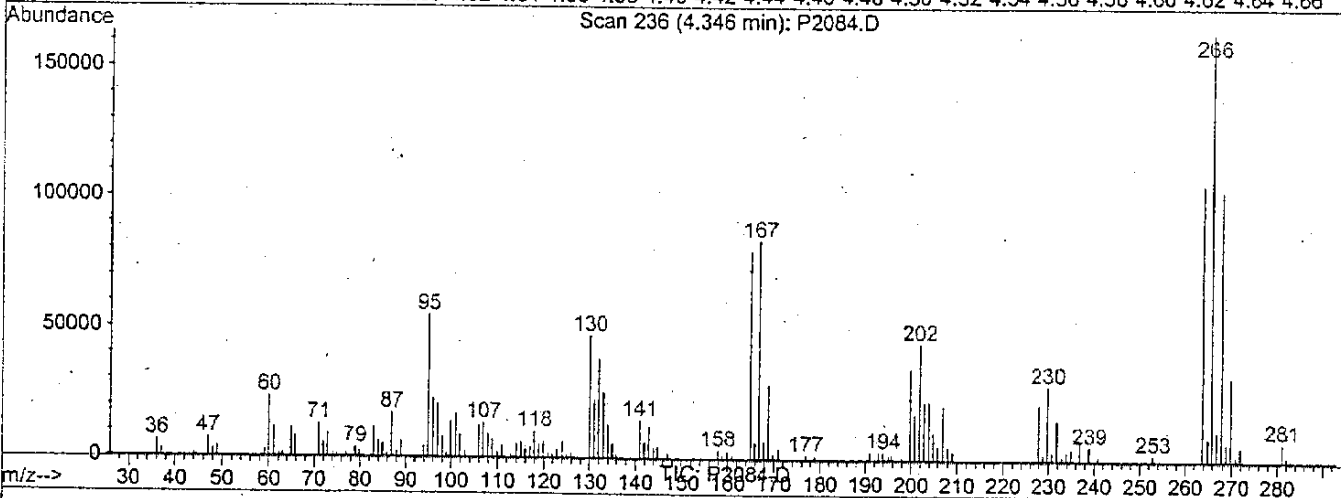
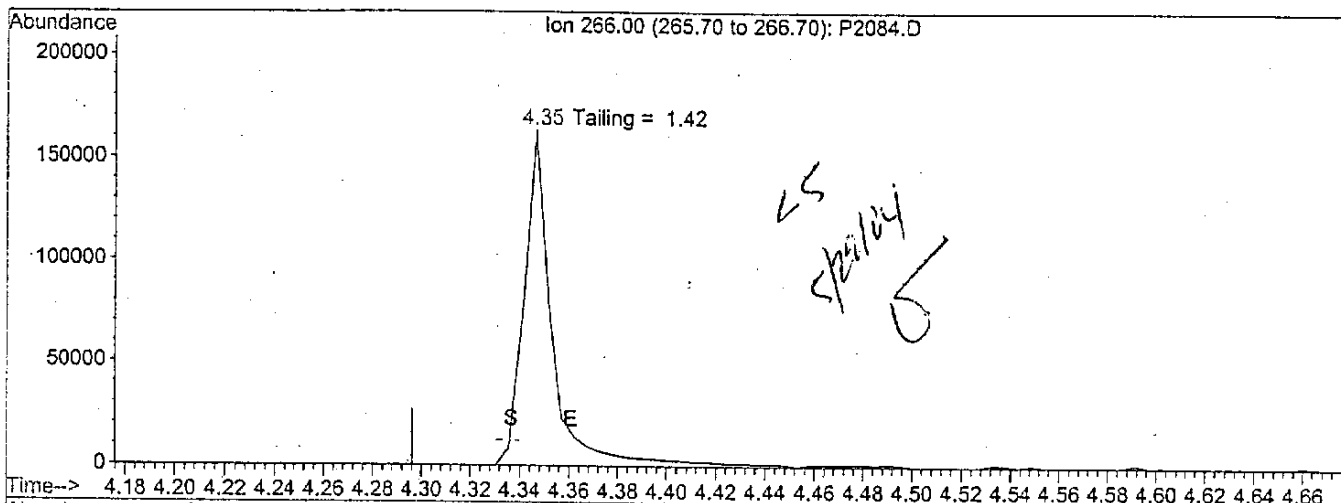


# Quantitation Report

Data File : C:\HPCHEM\1\DATA\052904.B\P2084.D  
 Acq On : 29 May 2004 8:12 am  
 Sample : DFTPP,BNA1512,P:041903,E:041905  
 Misc :  
 Quant Time: May 29 15:18 19104

Vial: 2  
 Operator: kidd  
 Inst : GC/MS Ins  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPPB.M (RTE Integrator)  
 Title :  
 Last Update : Wed May 12 11:21:34 2004  
 Response via : Single Level Calibration



(1) Pentachlorophenol

4.35min 32.65ug/ml

response 130443

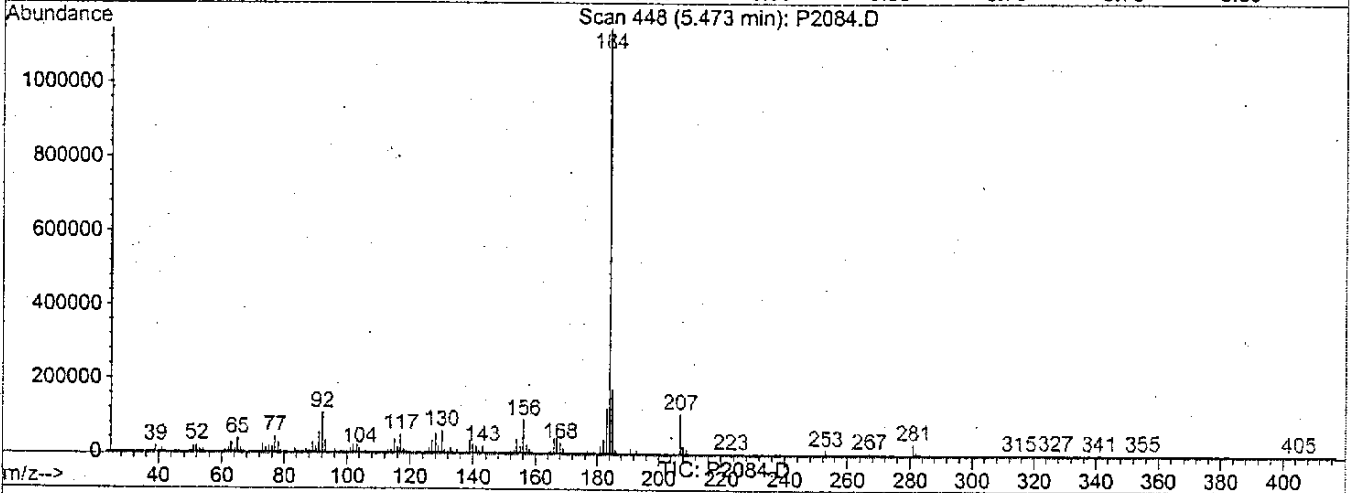
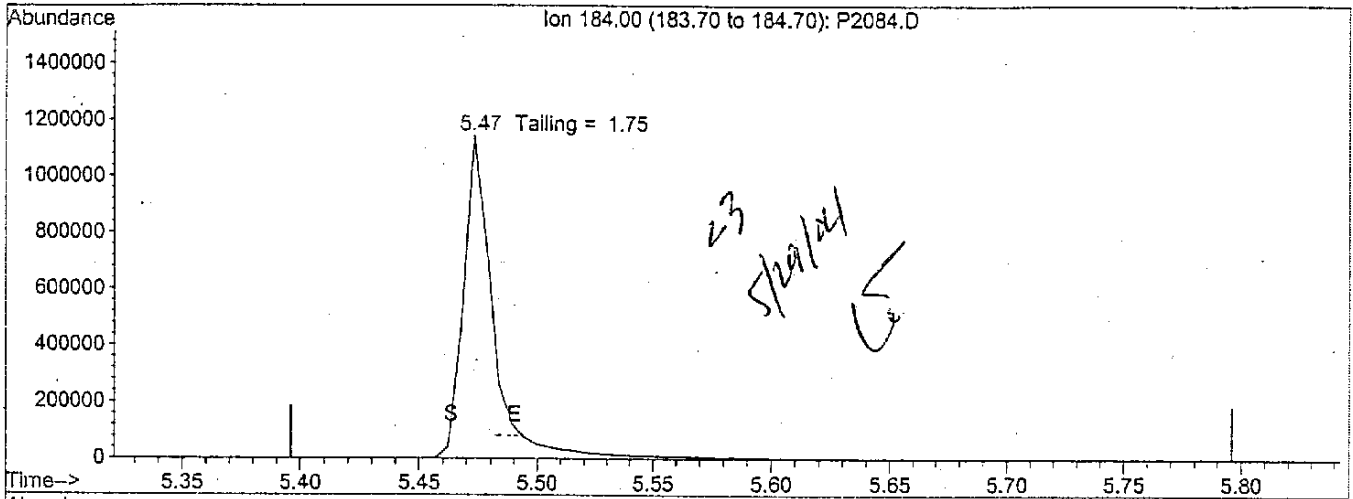
Ion	Exp%	Act%
266.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\052904.B\P2084.D  
 Acq On : 29 May 2004 8:12 am  
 Sample : DFTPP,BNA1512,P:041903,E:041905  
 Misc :  
 Quant Time: May 29 15:18 19104

Vial: 2  
 Operator: kidd  
 Inst : GC/MS Ins  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPPB.M (RTE Integrator)  
 Title :  
 Last Update : Wed May 12 11:21:34 2004  
 Response via : Single Level Calibration



(3) Benzidine

5.47min 51.21ug/ml

response 1007716

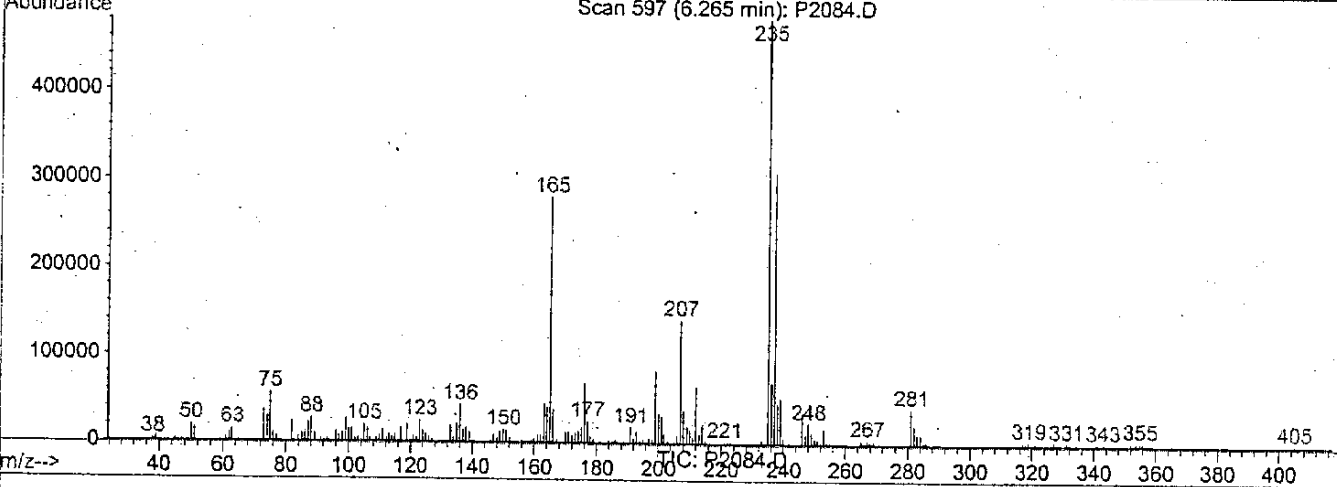
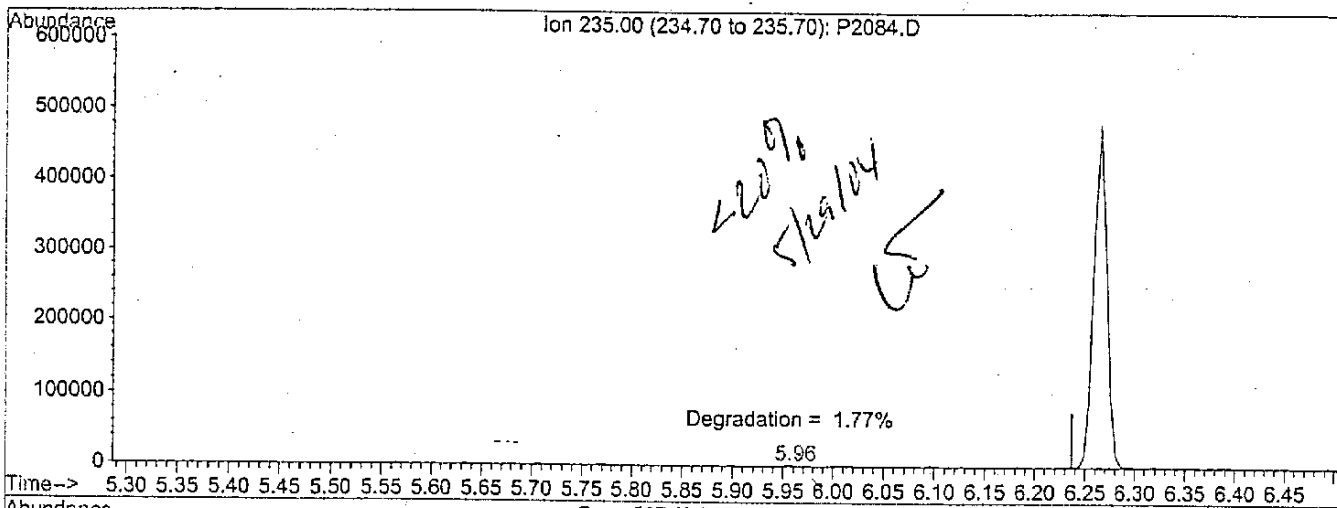
Ion	Exp%	Act%
184.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\052904.B\P2084.D  
 Acq On : 29 May 2004 8:12 am  
 Sample : DFTPP,BNA1512,P:041903,E:041905  
 Misc :  
 Quant Time: May 29 15:18 19104

Vial: 2  
 Operator: kidd  
 Inst : GC/MS Ins  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPPB.M (RTE Integrator)  
 Title :  
 Last Update : Wed May 12 11:21:34 2004  
 Response via : Single Level Calibration



(4) DDT

6.26min 41.31ug/ml

response 428614

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Calibration History

Method : /chem/P.i/052904.b/8270C.m  
 Start Cal Date: 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 18:33

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 5.00000		
29-MAY-2004 12:25	1-HSL	/chem/P.i/052904.b/p2094.d
Cal Level: 2 , Cal Amount: 10.00000		
29-MAY-2004 16:23	4-CUST	/chem/P.i/052904.b/p2103.d
29-MAY-2004 12:51	1-HSL	/chem/P.i/052904.b/p2095.d
29-MAY-2004 08:53	2-AP9std	/chem/P.i/052904.b/p2086.d ✓
Cal Level: 3 , Cal Amount: 20.00000		
29-MAY-2004 16:49	4-CUST	/chem/P.i/052904.b/p2104.d
29-MAY-2004 13:18	1-HSL	/chem/P.i/052904.b/p2096.d
29-MAY-2004 09:20	2-AP9std	/chem/P.i/052904.b/p2087.d ✓
Cal Level: 4 , Cal Amount: 50.00000		
29-MAY-2004 17:15	4-CUST	/chem/P.i/052904.b/p2105.d
29-MAY-2004 13:44	1-HSL	/chem/P.i/052904.b/p2097.d
29-MAY-2004 09:46	2-AP9std	/chem/P.i/052904.b/p2088.d ✓
Cal Level: 5 , Cal Amount: 80.00000		
29-MAY-2004 15:56	4-CUST	/chem/P.i/052904.b/p2102.d
29-MAY-2004 11:58	1-HSL	/chem/P.i/052904.b/p2093.d
29-MAY-2004 08:27	2-AP9std	/chem/P.i/052904.b/p2085.d ✓
Cal Level: 6 , Cal Amount: 120.00000		
29-MAY-2004 17:41	4-CUST	/chem/P.i/052904.b/p2106.d
29-MAY-2004 14:11	1-HSL	/chem/P.i/052904.b/p2098.d
29-MAY-2004 10:12	2-AP9std	/chem/P.i/052904.b/p2089.d ✓
Cal Level: 7 , Cal Amount: 160.00000		
29-MAY-2004 18:07	4-CUST	/chem/P.i/052904.b/p2107.d
29-MAY-2004 14:37	1-HSL	/chem/P.i/052904.b/p2099.d
29-MAY-2004 10:39	2-AP9std	/chem/P.i/052904.b/p2090.d ✓

```

+-----+-----+-----+
| Cal Level: 8 , Cal Amount: 200.00000 |
+-----+-----+-----+
| 29-MAY-2004 18:33 | 4-CUST | /chem/P.i/052904.b/p2108.d |
| 29-MAY-2004 15:04 | 1-HSL | /chem/P.i/052904.b/p2100.d |
| 29-MAY-2004 11:05 | 2-AP9std | /chem/P.i/052904.b/p2091.d ✓ |
+-----+-----+-----+

```

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 5

```

+-----+-----+-----+
| Ccal Level: 5 , Ccal Amount: 80.0000 |
+-----+-----+-----+
| 29-MAY-2004 15:56 | 4-CUST | /chem/P.i/052904.b/p2102.d |
+-----+-----+-----+
| Ccal Level: 5 , Ccal Amount: 80.0000 |
+-----+-----+-----+
| 29-MAY-2004 08:27 | 2-AP9std | /chem/P.i/052904.b/p2085.d |
+-----+-----+-----+
| Ccal Level: 5 , Ccal Amount: 80.0000 |
+-----+-----+-----+
| 29-MAY-2004 11:58 | 1-HSL | /chem/P.i/052904.b/p2093.d |
+-----+-----+-----+

```

INITIAL CALIBRATION REPORT

Instrument ID: P.i  
 Lab File ID: p2091.d  
 Analysis Type: WATER

Injection Date: 29-MAY-2004 11:05  
 Lab Sample ID: AP9 0200  
 Method File: /chem/P.i/052904.b/8270C.m

COMPOUND	%RSD
1,4-Dioxane	4.9
2-Picoline	6.3
N-Nitrosomethylethylamine	9.7
Methyl methanesulfonate	4.3
N-Nitrosodiethylamine	5.9
Ethyl methanesulfonate	3.6
Pentachloroethane	3.0
N-Nitrosopyrrolidine	5.0
N-Nitrosomorpholine	4.5
o-Toluidine	5.4
N-Nitrosopiperidine	7.8
O,O,O-Triethyl phosphorothio	3.7
a,a-Dimethylphenethylamine	6.9
2,6-Dichlorophenol	6.8
Hexachloropropene	9.7
N-Nitrosodi-n-butylamine	9.8
p-Phenylenediamine	11.7
Safrole	4.0
Isosafrole (#1)	9.6
1,2,4,5-Tetrachlorobenzene	3.8
Isosafrole (#2)	5.0
Biphenyl	4.5
1-Chloronaphthalene	3.7
1,4-Naphthoquinone	20.0
1,4-Dinitrobenzene	33.8
1,3-Dinitrobenzene	30.2
Pentachlorobenzene	3.7
1-Naphthylamine	5.2
2-Naphthylamine	5.7
2,3,4,6-Tetrachlorophenol	8.0
Thionazin	11.8
5-Nitro-o-toluidine	27.8
Diphenylamine	4.6
Sulfotepp	5.3
1,3,5-Trinitrobenzene	34.9
Diallate (#1)	4.9
Phorate	4.3
Phenacetin	23.3
Diallate (#2)	6.5

- WL 1/2  
 - Quad  
 - WL 1/2  
 - WL 1/2  
 - Quad  
 - WL 1/2

INITIAL CALIBRATION REPORT

Instrument ID: P.i  
 Lab File ID: p2091.d  
 Analysis Type: WATER

Injection Date: 29-MAY-2004 11:05  
 Lab Sample ID: AP9 0200  
 Method File: /chem/P.i/052904.b/8270C.m

COMPOUND	%RSD	
Dimethoate	17.5	- WL 1/2
4-Aminobiphenyl	5.2	
Pronamide	12.3	
Pentachloronitrobenzene	9.4	
Disulfoton	3.6	
2-secbutyl-4,6-dinitropheno	42.2	- Quad
Methyl parathion	20.9	- WL 1/2
Total Aramite	13.3	
Total Diallate	5.1	
Total Isosafrole	5.6	
Parathion	23.4	- WL 1/2
4-Nitroquinoline-1-oxide	51.3	- narrate
Methapyrilene	2.3	
Isodrin	4.1	
Aramite (#1)	13.3	
Aramite (#2)	13.1	
p-Dimethylaminoazobenzene	10.7	
Chlorobenzilate	45.1	- narrate
3,3'-Dimethylbenzidine	44.9	- WL 1/2
2-Acetylaminofluorene	24.4	- WL 1/2
7,12-Dimethylbenz(a)anthrac	43.9	- narrate
3-Methylcholanthrene	44.3	- narrate
Dibenz(a,j)acridine	10.6	

The average of all %RSD's in the initial calibration is 13.5 ✓



Report Date : 03-Jun-2004 05:07

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## STL-Denver

## INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2004 08:27  
 End Cal Date : 29-MAY-2004 15:04  
 Quant Method : ISTD  
 Target Version : 3.50  
 Integrator : HP RTE  
 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 05:07 kidd

## Calibration File Names:

Level 1: /chem/P.i/052904.b/p2094.d  
 Level 2: /chem/P.i/052904.b/p2095.d  
 Level 3: /chem/P.i/052904.b/p2096.d  
 Level 4: /chem/P.i/052904.b/p2097.d  
 Level 5: /chem/P.i/052904.b/p2093.d  
 Level 6: /chem/P.i/052904.b/p2098.d  
 Level 7: /chem/P.i/052904.b/p2099.d  
 Level 8: /chem/P.i/052904.b/p2100.d

Compound	5	10	20	50	80	120	Curve	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160	200									
	Level 7	Level 8									
7 2-Picoline	++++ 1.27788	1.10116 1.29861	1.19587	1.33630	1.21722	1.27065	AVRG		1.24253		6.30139
8 N-Nitrosomethylethylamine	++++ 0.55557	0.43975 0.57456	0.46555	0.55713	0.50940	0.53595	AVRG		0.51970		9.74594
9 Methyl methanesulfonate	++++ 0.36942	0.35149 0.35735	0.37859	0.40051	0.37695	0.37524	AVRG		0.37279		4.28215
11 N-Nitrosodiethylamine	++++ 0.54585	0.48629 0.57155	0.49703	0.56136	0.52847	0.54017	AVRG		0.53296		5.93495
13 Ethyl methanesulfonate	++++ 0.84560	0.85861 0.85758	0.83934	0.93027	0.84071	0.86473	AVRG		0.86240		3.64651

STL-Denver

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 Cal Date : 03-Jun-2004 05:07 kidd

Compound	5	10	20	50	80	120	Curve	Coefficients			%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
19 Pentachloroethane	++++ 0.44929	0.44600 0.45584	0.43676	0.47703	0.43982	0.45442	AVRG		0.45131		2.95599
31 N-Nitrosopyrrolidine	++++ 0.56457	0.50792 0.58162	0.53059	0.58266	0.54119	0.55670	AVRG		0.55218		4.96796
34 N-Nitrosomorpholine	++++ 0.24967	0.24437 0.25397	0.24971	0.27932	0.25058	0.25872	AVRG		0.25519		4.51001
35 o-Toluidine	++++ 1.74473	1.92948 1.72071	1.87652	1.97920	1.77679	1.77664	AVRG		1.82915		5.43098
39 N-Nitrosopiperidine	++++ 0.14994	0.12696 0.15657	0.12835	0.14973	0.14387	0.14415	AVRG		0.14280		7.83595
44 O,O,O-Triethyl phosphorothio	++++ 0.15837	0.15204 0.16434	0.15289	0.16645	0.15263	0.15521	AVRG		0.15742		3.73798
48 a,a-Dimethylphenethylamine	++++ 0.46663	++++ 0.42804	0.48467	0.51912	0.51509	0.48449	AVRG		0.48301		6.94621
53 2,6-Dichlorophenol	++++ 0.24090	0.20653 0.25194	0.21895	0.24335	0.22441	0.23395	AVRG		0.23143		6.79483
54 Hexachloropropene	++++ 0.19234	0.15295 0.20246	0.16918	0.19557	0.17179	0.18928	AVRG		0.18194		9.71591

STL-Denver

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Compound	5	10	20	50	80	120	Curve	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
57 N-Nitrosodi-n-butylamine	++++ 0.20068	0.15533 0.20632	0.17174	0.20133	0.19250	0.19511	AVRG		0.18900		9.82729
58 p-Phenylenediamine	++++ 0.21032	0.18269 ++++	0.18945	0.24364	0.23596	0.22983	AVRG		0.21532		11.74429
61 Safrole	++++ 0.23359	0.21953 0.24054	0.22938	0.24714	0.22770	0.22663	AVRG		0.23207		3.98910
65 1,2,4,5-Tetrachlorobenzene	++++ 0.27133	0.28154 0.27692	0.28225	0.29856	0.26679	0.27138	AVRG		0.27840		3.78847
66 Isosafrole (#1)	++++ 0.28551	0.23071 0.30538	0.24534	0.28918	0.28416	0.27230	AVRG		0.27323		9.61987
72 Isosafrole (#2)	++++ 0.31733	0.28748 0.32501	0.29977	0.33171	0.31421	0.30253	AVRG		0.31115		4.95546
73 1-Chloronaphthalene	++++ 0.96878	1.01768 0.98554	0.99636	1.04621	0.97484	0.93116	AVRG		0.98865		3.71994
75 1,4-Naphthoquinone	++++ 439587	19854 ++++	45222	137301	219660	317399	WLINR	0.10846	0.20350		0.99102
78 1,4-Dinitrobenzene	++++ 334964	8425 474475	22665	79070	102902	213549	QUAD	0.18817	8.71403	-3.15848	0.99578

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Compound	5	10	20	50	80	120	Curve	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
80 1,3-Dinitrobenzene	++++ 407444	10349 547865	31062	100747	145510	263119	WLINR	0.16850	0.16801		0.99263
89 Pentachlorobenzene	++++ 0.38775	0.39037 0.39815	0.40162	0.41689	0.38367	0.37181	AVRG		0.39290		3.66165
90 1-Naphthylamine	++++ 0.94971	0.86624 0.92472	0.91054	1.02043	0.94913	0.90078	AVRG		0.93165		5.22883
91 2,3,4,6-Tetrachlorophenol	++++ 0.25795	++++ 0.23833	0.20321	0.25234	0.24321	0.23619	AVRG		0.23854		8.04710
92 2-Naphthylamine	++++ 0.98447	0.89341 0.93537	0.93557	1.04770	0.96509	0.89645	AVRG		0.95115		5.66894
98 Thionazin	++++ 0.25968	0.18627 0.25408	0.21203	0.25676	0.25419	0.24033	AVRG		0.23762		11.77603
100 5-Nitro-o-toluidine	++++ 679828	19964 920246	51857	172716	260115	433467	WLINR	0.15683	0.28254		0.99227
182 Diphenylamine	++++ 0.96053	0.94039 0.92371	0.95954	1.03918	0.95605	0.89721	AVRG		0.95380		4.62202
104 Sulfotepp	++++ 0.11010	0.09833 0.11406	0.10441	0.11502	0.10748	0.10740	AVRG		0.10811		5.30326

## STL-Denver

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 Cal Date : 03-Jun-2004 05:07 kidd

Compound	5	10	20	50	80	120	Curve	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
105 1,3,5-Trinitrobenzene	+++++ 205218	+++++ 284136	10513	40392	55240	119617	QUAD	0.35141	25.38651	-31.29942	0.99295
106 Diallate (#1)	+++++ 0.31673	0.28298 0.32532	0.30478	0.32886	0.31532	0.30900	AVRG		0.31186		4.89538
107 Phorate	+++++ 0.12449	+++++ 0.13150	0.12633	0.13371	0.11914	0.12296	AVRG		0.12635		4.30008
109 Phenacetin	+++++ 1198813	42608 1598552	100707	313066	464915	772456	WLINR	0.13422	0.28720		0.99307
111 Diallate (#2)	+++++ 0.17365	0.14755 0.18180	0.16002	0.16972	0.16801	0.16959	AVRG		0.16719		6.48462
112 Dimethoate	+++++ 804300	34771 1078840	80990	240703	360030	549734	WLINR	0.10649	0.20276		0.99765
114 4-Aminobiphenyl	+++++ 0.63328	+++++ 0.65301	0.57296	0.67046	0.63677	0.62857	AVRG		0.63251		5.21506
115 Pentachloronitrobenzene	+++++ 0.07829	+++++ 0.08322	0.06255	0.07581	0.07159	0.07526	AVRG		0.07445		9.38167
116 Pronamide	+++++ 0.26489	0.18859 0.27710	0.22081	0.25750	0.25103	0.25405	AVRG		0.24485		12.32896

STL-Denver

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 Method file : /chem/P.i/052904.b/8270C.m  
 Cal Date : 03-Jun-2004 05:07 kidd

Compound	5	10	20	50	80	120	Curve	Coefficients			%RSD or R^2
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
120 2-secbutyl-4,6-dinitropheno	++++ 512742	10147 711729	27844	108220	140127	310421	QUAD	0.25174	10.42889	-5.20645	0.99361
121 Disulfoton	++++ 0.29490	++++ 0.30286	0.27570	0.30079	0.28936	0.28241	AVRG		0.29100		3.64310
124 Methyl parathion	++++ 718503	++++ 953970	51500	179464	286565	471318	WLINR	0.25114	0.18266		0.99844
126 Parathion	++++ 471605	++++ 636358	31624	110766	180507	298069	WLINR	0.27241	0.11904		0.99541
127 4-Nitroquinoline-1-oxide	++++ 0.04252	++++ 0.04715	0.00902	0.01883	0.02243	0.03005	AVRG		0.02833		51.29453 <-
128 Methapyrilene	++++ 0.20402	++++ 0.20710	++++	0.20792	0.21183	0.19911	AVRG		0.20600		2.30457
129 Isodrin	++++ 0.10060	0.09643 0.10519	0.09661	0.10570	0.09932	0.09603	AVRG		0.09998		4.08652
134 Aramite (#1)	++++ 0.09349	++++ 0.10051	0.06683	0.09177	0.08248	0.08977	AVRG		0.08747		13.34068
135 Aramite (#2)	++++ 0.12257	++++ 0.12985	0.08728	0.12369	0.11109	0.11869	AVRG		0.11553		13.12231

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Compound	5	10	20	50	80	120	Curve	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	160 Level 7	200 Level 8									
136 p-Dimethylaminoazobenzene	++++ 0.24833	0.19162 0.25624	0.21875	0.26421	0.25553	0.24691	AVRG		0.24023		10.74777
138 3,3'-Dimethylbenzidine	++++ 2384996	++++ 3101885	++++	635967	972090	1600021	WLINR	0.09081	0.53867		0.99760
139 2-Acetylaminofluorene	++++ 1755529	++++ 2260595	99769	365138	648288	1093703	WLINR	0.28479	0.40161		0.99748
149 7,12-Dimethylbenz(a)anthrac	++++ 0.44342	0.43427 0.47098	0.46309	0.48757	0.43669	0.43014	AVRG		0.45231		4.81673
152 3-Methylcholanthrene	++++ 0.52269	0.45456 0.53975	0.47854	0.53712	0.50718	0.50276	AVRG		0.50609		6.14255
153 Dibenz(a,j)acridine	++++ 0.85561	0.65842 0.85704	0.71060	0.87339	0.85840	0.82884	AVRG		0.80604		10.59474
M 1 Total Isosafrole	++++ 0.31176	0.27755 0.32157	0.29024	0.32427	0.30896	0.29724	AVRG		0.30451		5.58801
M 2 Total Diallate	++++ 0.27667	0.24506 0.28514	0.26425	0.28430	0.27528	0.26997	AVRG		0.27152		5.08768
M 3 Total Aramite	++++ 0.10920	++++ 0.11635	0.07787	0.10901	0.09710	0.10539	AVRG		0.10249		13.25746

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 Cal Date : 03-Jun-2004 05:07 kidd

Compound	5	10	20	50	80	120	Curve	Coefficients		%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	
	160	200								
	Level 7	Level 8								
165 Chlorobenzilate	++++ 0.22207	0.17147 0.23467	0.19908	0.23312	0.20493	0.21617	AVRG		0.21164	10.45460
199 1,4-Dioxane	++++ 0.54415	0.59454 0.55298	0.56205	0.59092	0.51735	0.54720	AVRG		0.55846	4.85952
175 Biphenyl	++++ 1.31001	1.39101 1.30501	1.37422	1.43238	1.31664	1.25526	AVRG		1.34065	4.53253



STL-Denver

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Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

*ML*  
06-03-04

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2085.d  
 Lab Smp Id: AP9\_0080 Client Smp ID: AP9\_0080  
 Inj Date : 29-MAY-2004 08:27  
 Operator : kidd Inst ID: P.i  
 Smp Info : AP9\_0080,BNA1406,P:050404,E:073104  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 05:04 kidd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 11:58 Cal File: p2093.d  
 Als bottle: 1 Calibration Sample, Level: 5  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 2-AP9std.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
								CAL-AMT	ON-COL
								(ug/ml)	(ug/ml)
* 22 1,4-Dichlorobenzene-d4	152			5.369	5.369	(1.000)	261424	40.0000	
* 49 Naphthalene-d8	136			6.581	6.581	(1.000)	969422	40.0000	
* 83 Acenaphthene-d10	164			8.255	8.255	(1.000)	518452	40.0000	
* 117 Phenanthrene-d10	188			9.493	9.493	(1.000)	924726	40.0000	
* 142 Chrysene-d12	240			11.741	11.741	(1.000)	979068	40.0000	
* 151 Perylene-d12	264			13.452	13.452	(1.000)	962677	40.0000	
7 2-Picoline	93			3.844	3.844	(0.716)	636422	80.0000	78.3708
8 N-Nitrosomethylethylamine	88			3.934	3.934	(0.733)	266341	80.0000	78.4147
9 Methyl methanesulfonate	80			4.179	4.179	(0.778)	197090	80.0000	80.8928
11 N-Nitrosodiethylamine	102			4.487	4.487	(0.836)	276308	80.0000	79.3256
13 Ethyl methanesulfonate	79			4.721	4.721	(0.879)	439563	80.0000	77.9874
19 Pentachloroethane	117			5.119	5.119	(0.953)	229958	80.0000	77.9631
31 N-Nitrosopyrrolidine	100			5.752	5.752	(1.071)	282961	80.0000	78.4084
34 N-Nitrosomorpholine	116			5.762	5.762	(1.073)	131015	80.0000	78.5541
35 o-Toluidine	106			5.789	5.789	(1.078)	928990	80.0000	77.7099

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
39 N-Nitrosopiperidine	114	6.071	6.071	(0.922)	278938	80.0000	80.6011
44 O,O,O-Triethyl phosphorothio	198	6.304	6.304	(0.958)	295925	80.0000	77.5659
48 a,a-Dimethylphenethylamine	58	6.421	6.421	(0.976)	998670	80.0000	85.3134(M)
53 2,6-Dichlorophenol	162	6.671	6.671	(1.014)	435101	80.0000	77.5733
54 Hexachloropropene	213	6.708	6.708	(1.019)	333074	80.0000	75.5375
57 N-Nitrosodi-n-butylamine	84	6.958	6.958	(1.057)	373230	80.0000	81.4808
58 p-Phenylenediamine	108	7.001	7.001	(1.064)	457486	80.0000	87.6697
61 Safrole	162	7.160	7.160	(1.088)	441468	80.0000	78.4917
65 1,2,4,5-Tetrachlorobenzene	216	7.463	7.463	(1.134)	517263	80.0000	76.6646
66 Isosafrole (#1)	162	7.442	7.442	(0.901)	51564	14.0000	14.5605
72 Isosafrole (#2)	104	7.649	7.649	(0.927)	268793	66.0000	66.6504
73 1-Chloronaphthalene	162	7.771	7.771	(0.941)	1010818	80.0000	78.8826
75 1,4-Napthoquinone	158	7.899	7.899	(0.957)	219660	80.0000	87.6158
78 1,4-Dinitrobenzene	168	7.941	7.941	(0.962)	102902	80.0000	71.7321
80 1,3-Dinitrobenzene	168	8.042	8.042	(0.974)	145510	80.0000	73.5601
89 Pentachlorobenzene	250	8.430	8.430	(1.021)	397831	80.0000	78.1220
90 1-Naphthylamine	143	8.489	8.489	(1.028)	984154	80.0000	81.5007
91 2,3,4,6-Tetrachlorophenol	232	8.552	8.552	(1.036)	252181	80.0000	81.5656
92 2-Naphthylamine	143	8.552	8.552	(1.036)	1000704	80.0000	81.1722
98 Thionazin	97	8.675	8.675	(1.051)	263569	80.0000	85.5784
100 5-Nitro-o-toluidine	152	8.738	8.738	(1.059)	260115	80.0000	77.3017
182 Diphenylamine	169	8.781	8.781	(1.064)	991337	80.0000	80.1889
104 Sulfotepp	97	8.946	8.946	(0.942)	198774	80.0000	79.5288(H)
105 1,3,5-Trinitrobenzene	213	9.025	9.025	(0.951)	55240	80.0000	70.2489
106 Diallate (#1)	86	9.025	9.025	(0.951)	421338	57.8000	58.4420
107 Phorate	121	9.041	9.041	(0.952)	220345	80.0000	75.4326
109 Phenacetin	108	9.041	9.041	(0.952)	464915	80.0000	75.3919
111 Diallate (#2)	86	9.100	9.100	(0.959)	87779	22.6000	22.7104
112 Dimethoate	87	9.211	9.211	(0.970)	360030	80.0000	81.0662
114 4-Aminobiphenyl	169	9.312	9.312	(0.981)	1177682	80.0000	80.5392
115 Pentachloronitrobenzene	237	9.429	9.429	(0.993)	132395	80.0000	76.9206
116 Pronamide	173	9.339	9.339	(0.984)	464275	80.0000	82.0196
120 2-secbutyl-4,6-dinitropheno	211	9.482	9.482	(0.999)	140127	80.0000	68.5006
121 Disulfoton	88	9.456	9.456	(0.996)	535165	80.0000	79.5492(H)
124 Methyl parathion	109	9.780	9.780	(1.030)	286565	80.0000	77.9067(H)
126 Parathion	109	10.083	10.083	(1.062)	180507	80.0000	76.4889(H)
127 4-Nitroquinoline-1-oxide	190	10.157	10.157	(1.070)	41491	80.0000	63.3434(H)
128 Methapyrilene	97	10.173	10.173	(1.072)	391762	80.0000	82.2639(H)
129 Isodrin	193	10.381	10.381	(1.093)	183680	80.0000	79.4682(H)
134 Aramite (#1)	185	10.699	10.699	(0.911)	72679	36.0000	33.9449(H)
135 Aramite (#2)	185	10.763	10.763	(0.917)	117464	43.2000	41.5397
136 p-Dimethylaminoazobenzene	120	10.885	10.885	(0.927)	500353	80.0000	85.0948(H)
138 3,3'-Dimethylbenzidine	212	11.178	11.178	(0.952)	972090	80.0000	77.7258(H)
139 2-Acetylaminofluorene	181	11.422	11.422	(0.973)	648288	80.0000	77.3410(H)
149 7,12-Dimethylbenz(a)anthrac	256	12.915	12.915	(0.960)	840781	80.0000	90.3237(H)
152 3-Methylcholanthrene	268	13.888	13.888	(1.032)	976492	80.0000	92.6162(H)
153 Dibenz(a,j)acridine	279	14.861	14.861	(1.105)	1652717	80.0000	85.1963(H)

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)	
M 1 Total Isosafrole	162				320357	80.0000	81.1674	
M 2 Total Diallate	86				509117	80.0000	81.1073	
M 3 Total Aramite	185				190143	80.0000	75.7988	
165 Chlorobenzilate	251	10.907	10.907	(0.929)	401290	80.0000	89.3316(H)	
199 1,4-Dioxane	88	2.988	2.988	(0.557)	270498	80.0000	74.1121(H)	
175 Biphenyl	154	7.702	7.702	(0.933)	1365229	80.0000	78.5675	

QC Flag Legend

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

STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2085.d  
 Lab Smp Id: AP9\_0080  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kiddd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 08:27  
 Client Smp ID: AP9\_0080  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

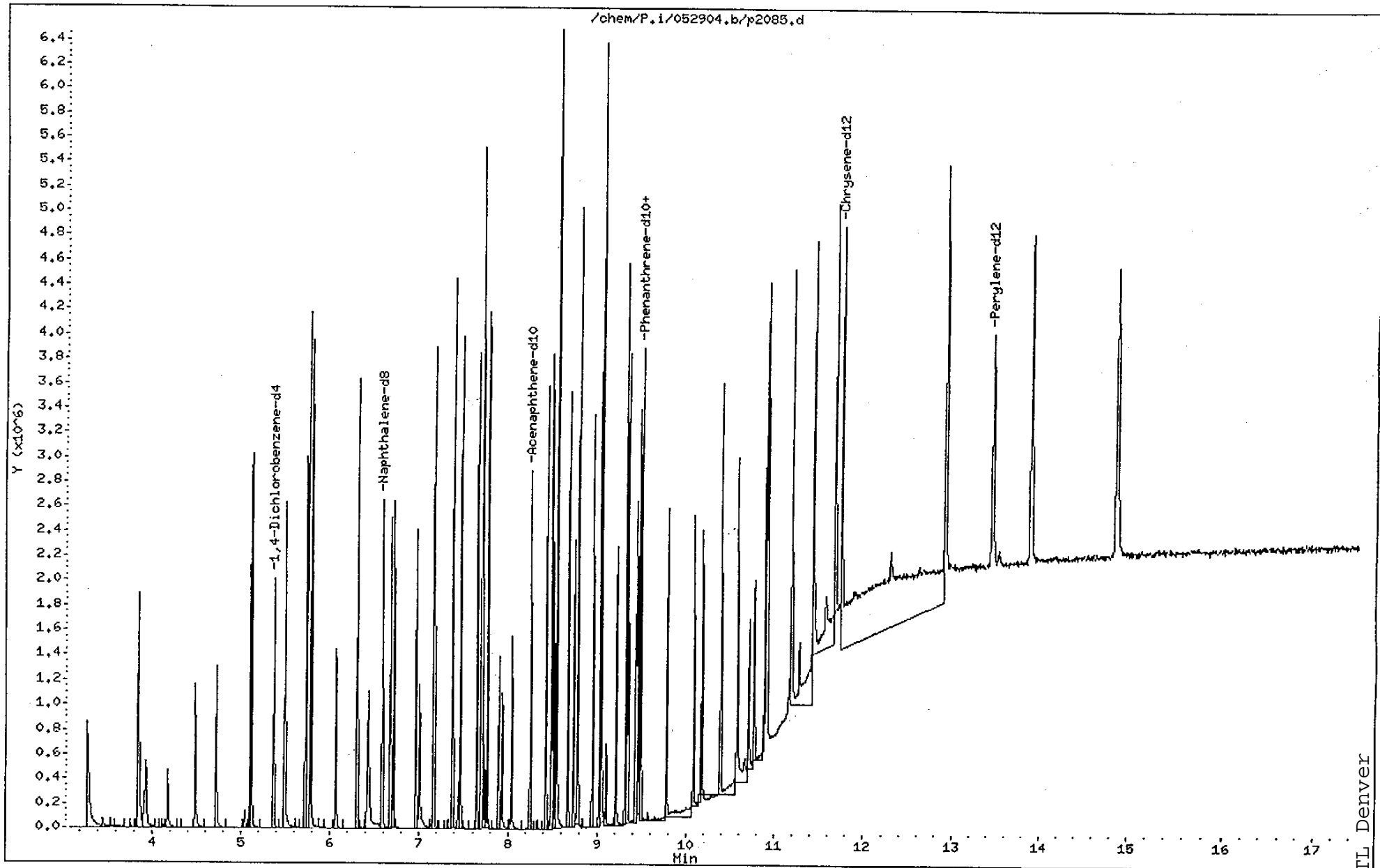
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	340571	170286	681142	261424	-23.24
49 Naphthalene-d8	1226615	613308	2453230	969422	-20.97
83 Acenaphthene-d10	656132	328066	1312264	518452	-20.98
117 Phenanthrene-d10	1163805	581902	2327610	924726	-20.54
142 Chrysene-d12	1266300	633150	2532600	979068	-22.68
151 Perylene-d12	1208372	604186	2416744	962677	-20.33

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.37	0.08
49 Naphthalene-d8	6.58	6.08	7.08	6.58	-0.02
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	0.05
117 Phenanthrene-d10	9.49	8.99	9.99	9.49	0.04
142 Chrysene-d12	11.74	11.24	12.24	11.74	0.04
151 Perylene-d12	13.44	12.94	13.94	13.45	0.07

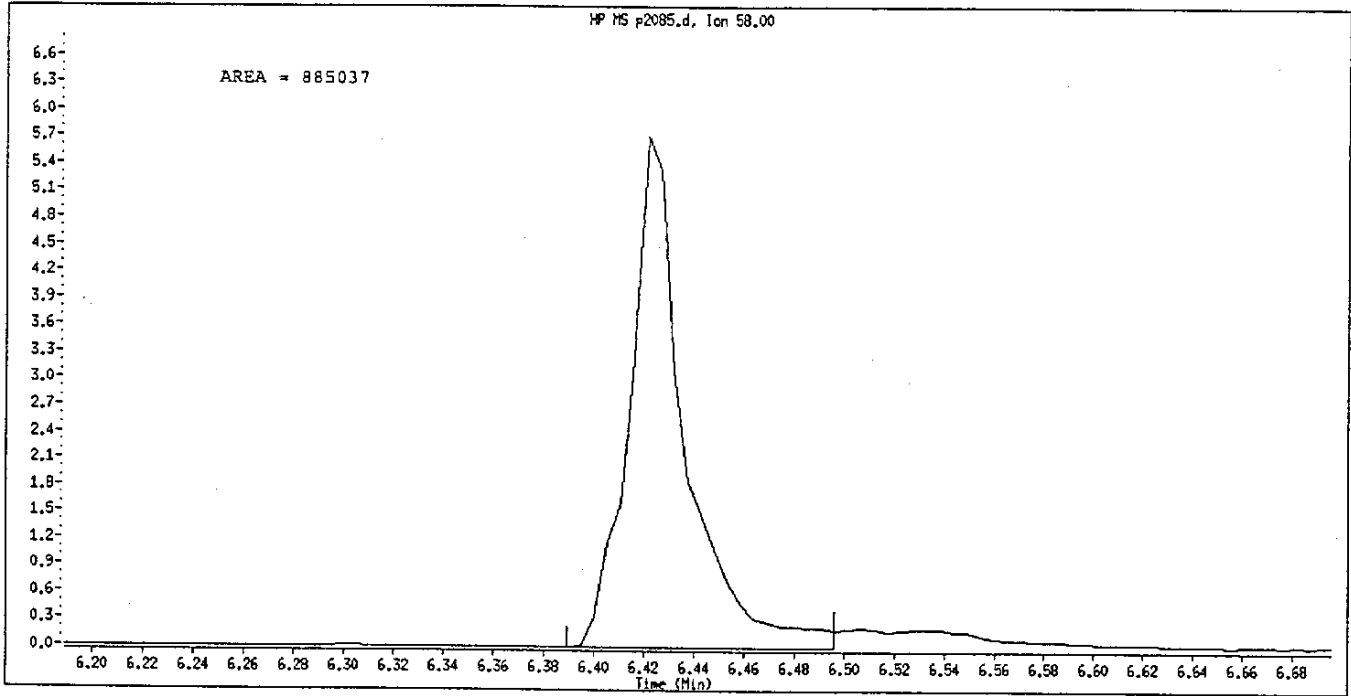
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/P.i/052904.b/p2085.d  
Date : 29-MAY-2004 08:27  
Client ID: AP9\_0080  
Sample Info: AP9\_0080,BNA1406,P:050404,E:073104  
Volume Injected (uL): 0,5  
Column phase: Rtx-5ms 30m 0,5um

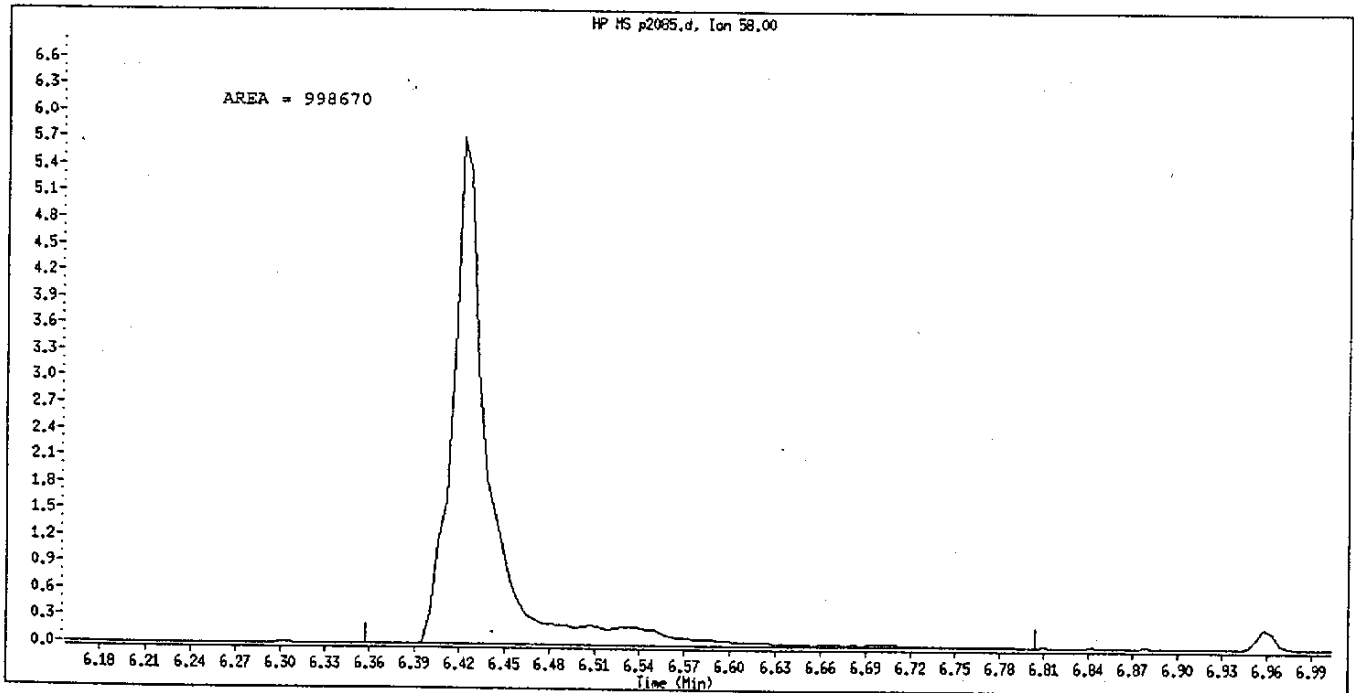
Instrument: P.i  
Operator: kidd  
Column diameter: 0,25



Data File Name: p2085.d  
Inj. Date and Time: 29-MAY-2004 08:27  
Instrument ID: P.i  
Client ID: AP9\_0080  
Compound Name: a,a-Dimethylphenethylamine  
CAS #: 122-09-8  
Report Date: 06/03/2004



Original Integration



Manual Integration

Manually Integrated By: kidd  
Manual Integration Reason: Split Peak

*mx*  
*06-03-04*

*[Signature]* 6/3/04

*ML*  
06-03-04

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2086.d  
 Lab Smp Id: AP9\_0010 Client Smp ID: AP9\_0010  
 Inj Date : 29-MAY-2004 08:53  
 Operator : kiddd Inst ID: P.i  
 Smp Info : AP9\_0010,BNA1406,P:050404,E:073104  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 05:04 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 12:51 Cal File: p2095.d  
 Als bottle: 4 Calibration Sample, Level: 2  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 2-AP9std.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	AMOUNTS					
			MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)
* 22 1,4-Dichlorobenzene-d4	152		5.369	5.369	(1.000)	304836	40.0000	
* 49 Naphthalene-d8	136		6.581	6.581	(1.000)	1185193	40.0000	
* 83 Acenaphthene-d10	164		8.250	8.250	(1.000)	648537	40.0000	
* 117 Phenanthrene-d10	188		9.483	9.483	(1.000)	1142023	40.0000	
* 142 Chrysene-d12	240		11.704	11.704	(1.000)	1084556	40.0000	
* 151 Perylene-d12	264		13.399	13.399	(1.000)	940309	40.0000	
7 2-Picoline	93		3.871	3.871	(0.721)	83918	10.0000	8.86224(a)
8 N-Nitrosomethylethylamine	88		3.950	3.950	(0.736)	33513	10.0000	8.46159(a)
9 Methyl methanesulfonate	80		4.190	4.190	(0.780)	26787	10.0000	9.42863(a)
11 N-Nitrosodiethylamine	102		4.498	4.498	(0.838)	37060	10.0000	9.12440(a)
13 Ethyl methanesulfonate	79		4.732	4.732	(0.881)	65434	10.0000	9.95602(a)
19 Pentachloroethane	117		5.120	5.120	(0.953)	33989	10.0000	9.88230(a)
31 N-Nitrosopyrrolidine	100		5.763	5.763	(1.073)	38708	10.0000	9.19847(a)
34 N-Nitrosomorpholine	116		5.763	5.763	(1.073)	18623	10.0000	9.57583(a)
35 o-Toluidine	106		5.795	5.795	(1.079)	147044	10.0000	10.5485



Compounds	QUANT SIG			RESPONSE	AMOUNTS	
	MASS	RT	EXP RT REL RT		CAL-AMT (ug/ml)	ON-COL (ug/ml)
*****	----	==	-----	-----	-----	-----
39 N-Nitrosopiperidine	114	6.076	6.076 (0.923)	37619	10.0000	8.89128(a)
44 O,O,O-Triethyl phosphorothio	198	6.305	6.305 (0.958)	45050	10.0000	9.65846(a)
48 a,a-Dimethylphenethylamine	58	6.416	6.416 (0.975)	138826	10.0000	9.70041(a)
53 2,6-Dichlorophenol	162	6.671	6.671 (1.014)	61194	10.0000	8.92391(a)
54 Hexachloropropene	213	6.709	6.709 (1.019)	45320	10.0000	8.40690(a)
57 N-Nitrosodi-n-butylamine	84	6.964	6.964 (1.058)	46024	10.0000	8.21839(a)
58 p-Phenylenediamine	108	7.017	7.017 (1.066)	54131	10.0000	8.48480(aM)
61 Safrole	162	7.160	7.160 (1.088)	65047	10.0000	9.45966(a)
65 1,2,4,5-Tetrachlorobenzene	216	7.463	7.463 (1.134)	83420	10.0000	10.1129
66 Isosafrole (#1)	162	7.447	7.447 (0.903)	6546	1.75000	1.47768(a)
72 Isosafrole (#2)	104	7.649	7.649 (0.927)	38454	8.25000	7.62254(a)
73 1-Chloronaphthalene	162	7.771	7.771 (0.942)	165000	10.0000	10.2936
75 1,4-Naphthoquinone	158	7.899	7.899 (0.957)	19854	10.0000	10.3556
78 1,4-Dinitrobenzene	168	7.942	7.942 (0.963)	8425	10.0000	12.0336
80 1,3-Dinitrobenzene	168	8.048	8.048 (0.976)	10349	10.0000	10.5392
89 Pentachlorobenzene	250	8.430	8.430 (1.022)	63293	10.0000	9.93583(a)
90 1-Naphthylamine	143	8.494	8.494 (1.030)	140447	10.0000	9.29790(a)
91 2,3,4,6-Tetrachlorophenol	232	8.553	8.553 (1.037)	30104	10.0000	7.78382(a)
92 2-Naphthylamine	143	8.553	8.553 (1.037)	144853	10.0000	9.39297(a)
98 Thionazin	97	8.675	8.675 (1.052)	30200	10.0000	7.83882(a)
100 5-Nitro-o-toluidine	152	8.739	8.739 (1.059)	19964	10.0000	10.6312
182 Diphenylamine	169	8.781	8.781 (1.064)	152470	10.0000	9.85942(a)
104 Sulfotepp	97	8.941	8.941 (0.943)	28075	10.0000	9.09543(a)
105 1,3,5-Trinitrobenzene	213	9.020	9.020 (0.951)	3071	10.0000	16.7780(Q)
106 Diallate (#1)	86	9.020	9.020 (0.951)	58170	7.20000	6.53328(a)
107 Phorate	121	9.036	9.036 (0.953)	32873	10.0000	9.11241(a)
109 Phenacetin	108	9.036	9.036 (0.953)	42608	10.0000	10.5653
111 Diallate (#2)	86	9.100	9.100 (0.960)	11795	2.80000	2.47099(a)
112 Dimethoate	87	9.206	9.206 (0.971)	34771	10.0000	10.2660
114 4-Aminobiphenyl	169	9.307	9.307 (0.982)	154536	10.0000	8.55751(a)
115 Pentachloronitrobenzene	237	9.424	9.424 (0.994)	14879	10.0000	6.99976(a)
116 Pronamide	173	9.334	9.334 (0.984)	53843	10.0000	7.70211(a)
120 2-secbutyl-4,6-dinitropheno	211	9.477	9.477 (0.999)	10147	10.0000	13.7597
121 Disulfoton	88	9.451	9.451 (0.997)	70657	10.0000	8.50436(a)
124 Methyl parathion	109	9.770	9.770 (1.030)	19199	10.0000	13.7271
126 Parathion	109	10.067	10.067 (1.062)	11965	10.0000	14.4168
127 4-Nitroquinoline-1-oxide	190	10.142	10.142 (1.069)	2077	10.0000	2.56757(aH)
128 Methapyrilene	97	10.158	10.158 (1.071)	48955	10.0000	8.32382(a)
129 Isodrin	193	10.365	10.365 (1.093)	27530	10.0000	9.64442(aH)
134 Aramite (#1)	185	10.673	10.673 (0.912)	6063	4.60000	2.55631(a)
135 Aramite (#2)	185	10.737	10.737 (0.917)	10709	5.40000	3.41876(a)
136 p-Dimethylaminoazobenzene	120	10.859	10.859 (0.928)	51956	10.0000	7.97670(aH)
138 3,3'-Dimethylbenzidine	212	11.146	11.146 (0.952)	111817	10.0000	13.3267(QH)
139 2-Acetylaminofluorene	181	11.385	11.385 (0.973)	39847	10.0000	15.0509(H)
149 7,12-Dimethylbenz(a)anthrac	256	12.863	12.863 (0.960)	102087	10.0000	11.2279(H)
152 3-Methylcholanthrene	268	13.830	13.830 (1.032)	106856	10.0000	10.3759(QH)
153 Dibenz(a,j)acridine	279	14.802	14.802 (1.105)	154779	10.0000	8.16853(aH)

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
-----	----	--	-----	-----	-----	-----	-----
M 1 Total Isosafrole	162				45000	10.0000	9.11452(a)
M 2 Total Diallate	86				69965	10.0000	9.02530(a)
M 3 Total Aramite	185				16772	10.0000	6.03570(a)
165 Chlorobenzilate	251	10.875	10.875	(0.929)	46492	10.0000	9.34298(aH)
199 1,4-Dioxane	88	2.994	2.994	(0.558)	45309	10.0000	10.6461
175 Biphenyl	154	7.702	7.702	(0.934)	225530	10.0000	10.3756

### QC Flag Legend

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

STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2086.d  
 Lab Smp Id: AP9\_0010  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kiddd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 08:27  
 Client Smp ID: AP9\_0010  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	340571	170286	681142	304836	-10.49
49 Naphthalene-d8	1226615	613308	2453230	1185193	-3.38
83 Acenaphthene-d10	656132	328066	1312264	648537	-1.16
117 Phenanthrene-d10	1163805	581902	2327610	1142023	-1.87
142 Chrysene-d12	1266300	633150	2532600	1084556	-14.35
151 Perylene-d12	1208372	604186	2416744	940309	-22.18

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.37	0.08
49 Naphthalene-d8	6.58	6.08	7.08	6.58	-0.01
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	-0.01
117 Phenanthrene-d10	9.49	8.99	9.99	9.48	-0.06
142 Chrysene-d12	11.74	11.24	12.24	11.70	-0.28
151 Perylene-d12	13.44	12.94	13.94	13.40	-0.32

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.

Data File: /chem/P.1/052904.b/p2086.d

Date : 29-MAY-2004 08:53

Client ID: AP9\_0010

Sample Info: AP9\_0010,BNA1406,P:050404,E:073104

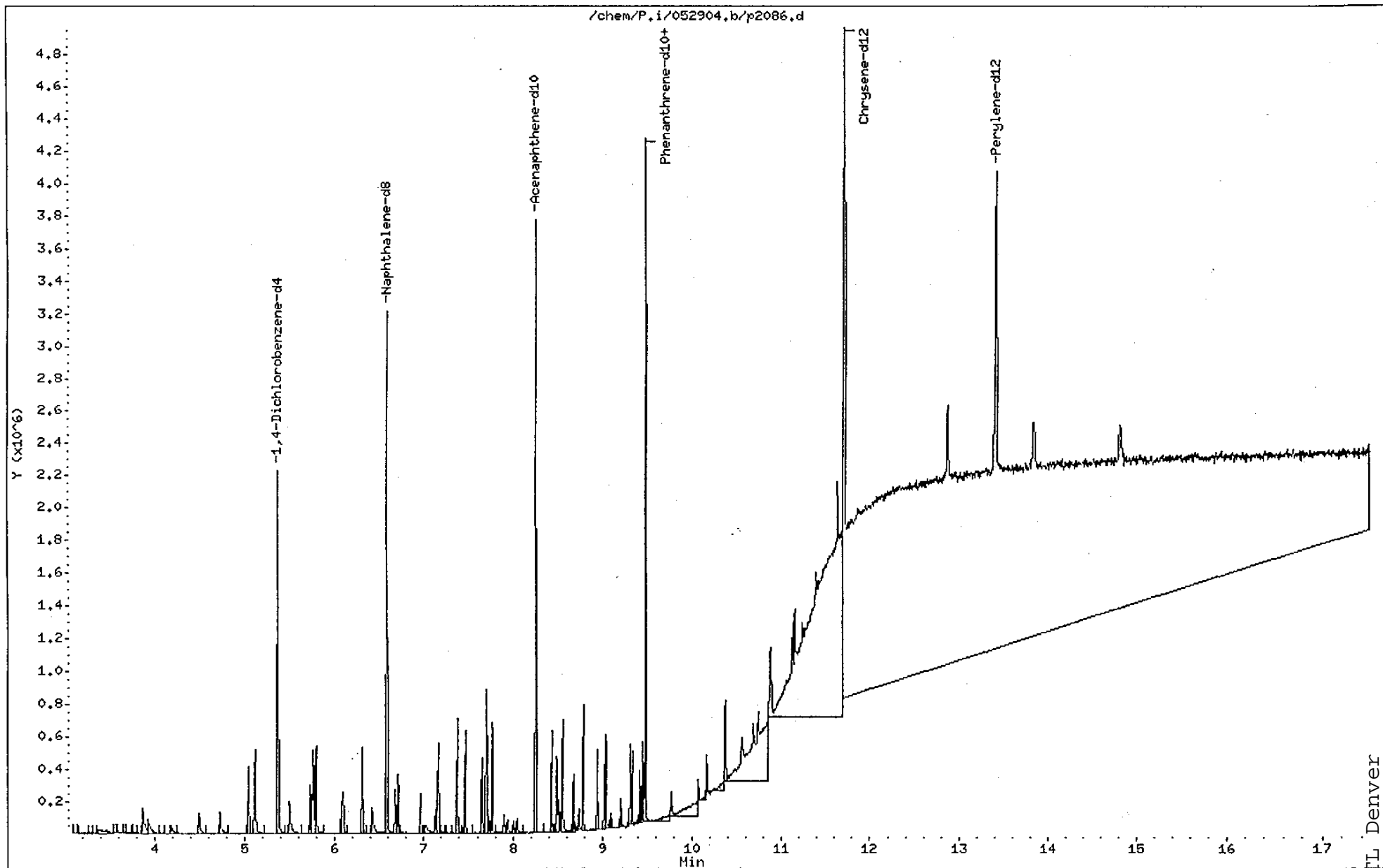
Volume Injected (uL): 0.5

Column phase: Rtx-5ms 30m 0.5um

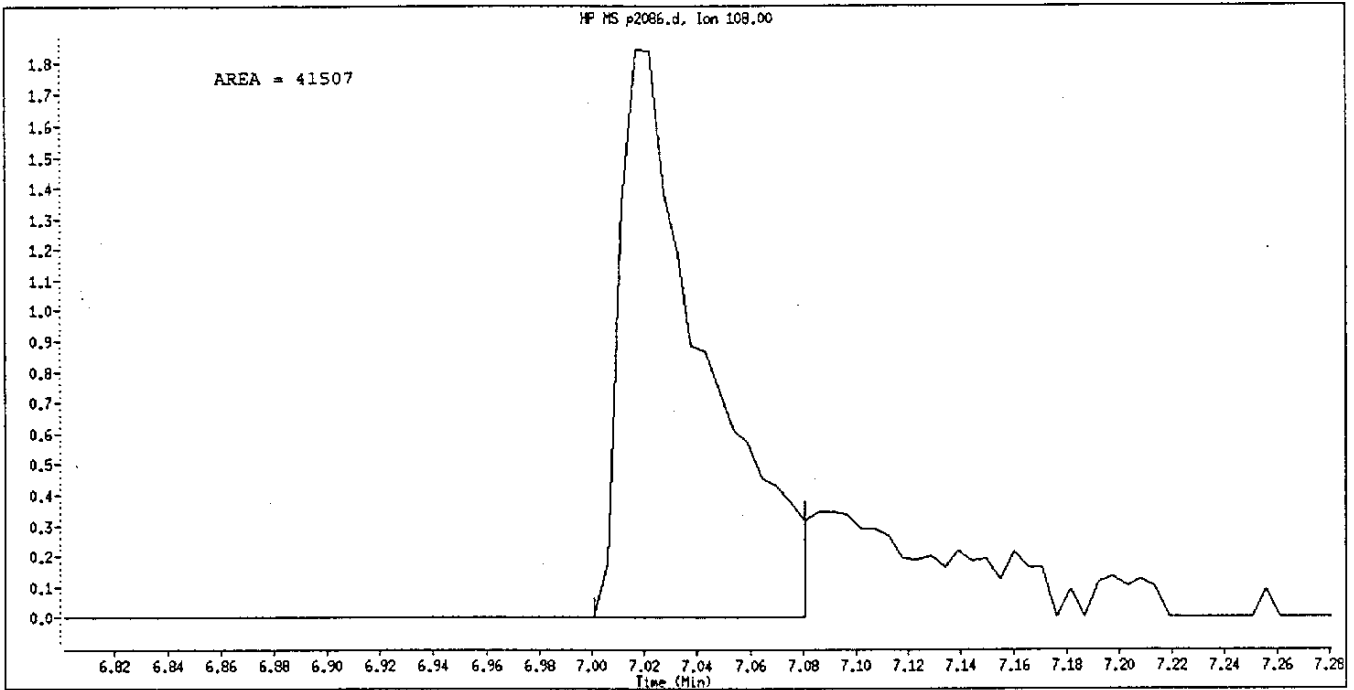
Instrument: P.i

Operator: kiddd

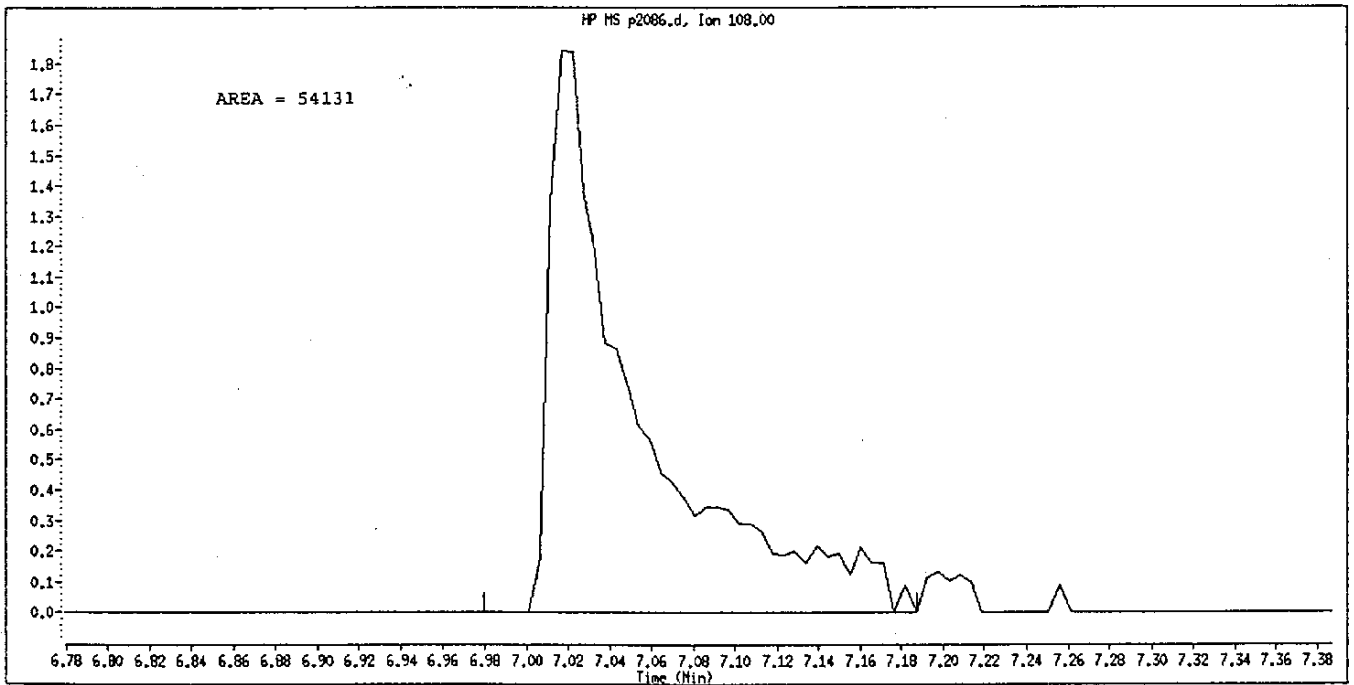
Column diameter: 0,25



Data File Name: p2086.d  
Inj. Date and Time: 29-MAY-2004 08:53  
Instrument ID: P.i  
Client ID: AP9\_0010  
Compound Name: p-Phenylenediamine  
CAS #: 106-50-3  
Report Date: 06/03/2004



Original Integration



Manual Integration

Manually Integrated By: kiddd  
Manual Integration Reason: Peak Tailing or Fronting

*mx*  
06-03-04

*JMP* 6/3/04

*MLL*  
 06-03-04

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2087.d  
 Lab Smp Id: AP9\_0020 Client Smp ID: AP9\_0020  
 Inj Date : 29-MAY-2004 09:20  
 Operator : kiddd Inst ID: P.i  
 Smp Info : AP9\_0020,BNA1406,P:050404,E:073104  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 05:05 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 13:18 Cal File: p2096.d  
 Als bottle: 5 Calibration Sample, Level: 3  
 Dil Factor: 1.00000 Compound Sublist: 2-AP9std.sub  
 Integrator: HP RTE  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG						AMOUNTS	
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 22 1,4-Dichlorobenzene-d4	152	5.369	5.369	(1.000)	316433	40.0000		
* 49 Naphthalene-d8	136	6.581	6.581	(1.000)	1187218	40.0000		
* 83 Acenaphthene-d10	164	8.255	8.255	(1.000)	648006	40.0000		
* 117 Phenanthrene-d10	188	9.488	9.488	(1.000)	1107551	40.0000		
* 142 Chrysene-d12	240	11.720	11.720	(1.000)	1099296	40.0000		
* 151 Perylene-d12	264	13.426	13.426	(1.000)	948497	40.0000		
7 2-Picoline	93	3.855	3.855	(0.718)	189206	20.0000	19.2490	
8 N-Nitrosomethylethylamine	88	3.945	3.945	(0.735)	73657	20.0000	17.9158	
9 Methyl methanesulfonate	80	4.184	4.184	(0.779)	59899	20.0000	20.3109	
11 N-Nitrosodiethylamine	102	4.492	4.492	(0.837)	78638	20.0000	18.6516	
13 Ethyl methanesulfonate	79	4.726	4.726	(0.880)	132797	20.0000	19.4650	
19 Pentachloroethane	117	5.119	5.119	(0.953)	69103	20.0000	19.3554	
31 N-Nitrosopyrrolidine	100	5.757	5.757	(1.072)	83948	20.0000	19.2181	
34 N-Nitrosomorpholine	116	5.762	5.762	(1.073)	39509	20.0000	19.5707	
35 o-Toluidine	106	5.789	5.789	(1.078)	296896	20.0000	20.5179	

Compounds	QUANT SIG				RESPONSE	AMOUNTS	
	MASS	RT	EXP RT	REL RT		CAL-AMT (ug/ml)	ON-COL (ug/ml)
39 N-Nitrosopiperidine	114	6.071	6.071	(0.922)	76187	20.0000	17.9762
44 O,O,O-Triethyl phosphorothio	198	6.304	6.304	(0.958)	90754	20.0000	19.4240
48 a,a-Dimethylphenethylamine	58	6.416	6.416	(0.975)	287706	20.0000	20.0690
53 2,6-Dichlorophenol	162	6.671	6.671	(1.014)	129971	20.0000	18.9213
54 Hexachloropropene	213	6.708	6.708	(1.019)	100426	20.0000	18.5973
57 N-Nitrosodi-n-butylamine	84	6.958	6.958	(1.057)	101945	20.0000	18.1730
58 p-Phenylenediamine	108	7.006	7.006	(1.065)	112460	20.0000	17.5976
61 Safrole	162	7.160	7.160	(1.088)	136162	20.0000	19.7680
65 1,2,4,5-Tetrachlorobenzene	216	7.463	7.463	(1.134)	167545	20.0000	20.2767
66 Isosafrole (#1)	162	7.447	7.447	(0.902)	13911	3.50000	3.14281(a)
72 Isosafrole (#2)	104	7.649	7.649	(0.927)	80128	16.5000	15.8964
73 1-Chloronaphthalene	162	7.766	7.766	(0.941)	322823	20.0000	20.1559
75 1,4-Naphthoquinone	158	7.899	7.899	(0.957)	45222	20.0000	18.0552
78 1,4-Dinitrobenzene	168	7.941	7.941	(0.962)	22665	20.0000	19.5638
80 1,3-Dinitrobenzene	168	8.048	8.048	(0.975)	31062	20.0000	18.1523
89 Pentachlorobenzene	250	8.430	8.430	(1.021)	130125	20.0000	20.4440
90 1-Naphthylamine	143	8.489	8.489	(1.028)	295018	20.0000	19.5468
91 2,3,4,6-Tetrachlorophenol	232	8.552	8.552	(1.036)	65842	20.0000	17.0383
92 2-Naphthylamine	143	8.552	8.552	(1.036)	303126	20.0000	19.6723
98 Thionazin	97	8.675	8.675	(1.051)	68698	20.0000	17.8461
100 5-Nitro-o-toluidine	152	8.738	8.738	(1.059)	51857	20.0000	17.6025
182 Diphenylamine	169	8.781	8.781	(1.064)	310893	20.0000	20.1203
104 Sulfotepp	97	8.940	8.940	(0.942)	57820	20.0000	19.3149
105 1,3,5-Trinitrobenzene	213	9.025	9.025	(0.951)	10513	20.0000	23.5824(Q)
106 Diallate (#1)	86	9.025	9.025	(0.951)	121520	14.4000	14.0731
107 Phorate	121	9.041	9.041	(0.953)	69959	20.0000	19.9962
109 Phenacetin	108	9.036	9.036	(0.952)	100707	20.0000	18.0331
111 Diallate (#2)	86	9.100	9.100	(0.959)	24813	5.60000	5.35998(a)
112 Dimethoate	87	9.206	9.206	(0.970)	80990	20.0000	18.6854
114 4-Aminobiphenyl	169	9.312	9.312	(0.982)	317293	20.0000	18.1171
115 Pentachloronitrobenzene	237	9.429	9.429	(0.994)	34640	20.0000	16.8034
116 Pronamide	173	9.339	9.339	(0.984)	122278	20.0000	18.0360
120 2-secbutyl-4,6-dinitropheno	211	9.482	9.482	(0.999)	27844	20.0000	20.4254
121 Disulfoton	88	9.456	9.456	(0.997)	152678	20.0000	18.9485
124 Methyl parathion	109	9.775	9.775	(1.030)	51500	20.0000	20.2281
126 Parathion	109	10.078	10.078	(1.062)	31624	20.0000	20.4908
127 4-Nitroquinoline-1-oxide	190	10.152	10.152	(1.070)	4996	20.0000	6.36824(aQ)
128 Methapyrilene	97	10.168	10.168	(1.072)	102142	20.0000	17.9077
129 Isodrin	193	10.375	10.375	(1.094)	53502	20.0000	19.3264
134 Aramite (#1)	185	10.689	10.689	(0.912)	16897	9.20000	7.02867(a)
135 Aramite (#2)	185	10.747	10.747	(0.917)	25905	10.8000	8.15906(a)
136 p-Dimethylaminoazobenzene	120	10.875	10.875	(0.928)	120236	20.0000	18.2121
138 3,3'-Dimethylbenzidine	212	11.162	11.162	(0.952)	252323	20.0000	22.4775(H)
139 2-Acetylaminofluorene	181	11.401	11.401	(0.973)	99769	20.0000	20.4309
149 7,12-Dimethylbenz(a)anthrac	256	12.884	12.884	(0.960)	219622	20.0000	20.4769(H)
152 3-Methylcholanthrene	268	13.856	13.856	(1.032)	226947	20.0000	18.9114(H)
153 Dibenz(a,j)acridine	279	14.829	14.829	(1.105)	336999	20.0000	17.6317

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
-----	----	--	-----	-----	-----	-----	-----
M 1 Total Isosafrole	162				94039	20.0000	19.0627
M 2 Total Diallate	86				146333	20.0000	19.4641
M 3 Total Aramite	185				42802	20.0000	15.1965
165 Chlorobenzilate	251	10.896	10.896	(0.930)	109423	20.0000	18.8125 (H)
199 1,4-Dioxane	88	2.994	2.994	(0.558)	88926	20.0000	20.1288
175 Biphenyl	154	7.702	7.702	(0.933)	445251	20.0000	20.5008

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- H - Operator selected an alternate compound hit.



STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2087.d  
 Lab Smp Id: AP9 0020  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kiddd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 08:27  
 Client Smp ID: AP9\_0020  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	340571	170286	681142	316433	-7.09
49 Naphthalene-d8	1226615	613308	2453230	1187218	-3.21
83 Acenaphthene-d10	656132	328066	1312264	648006	-1.24
117 Phenanthrene-d10	1163805	581902	2327610	1107551	-4.83
142 Chrysene-d12	1266300	633150	2532600	1099296	-13.19
151 Perylene-d12	1208372	604186	2416744	948497	-21.51

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.37	0.08
49 Naphthalene-d8	6.58	6.08	7.08	6.58	-0.02
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	0.05
117 Phenanthrene-d10	9.49	8.99	9.99	9.49	-0.01
142 Chrysene-d12	11.74	11.24	12.24	11.72	-0.14
151 Perylene-d12	13.44	12.94	13.94	13.43	-0.13

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.

Data File: /chem/P.i/052904,b/p2087.d

Date : 29-MAY-2004 09:20

Client ID: AP9\_0020

Sample Info: AP9\_0020,BNA1406,P:050404,E:073104

Volume Injected (uL): 0.5

Column phase: Rtx-5ms 30m 0.5um

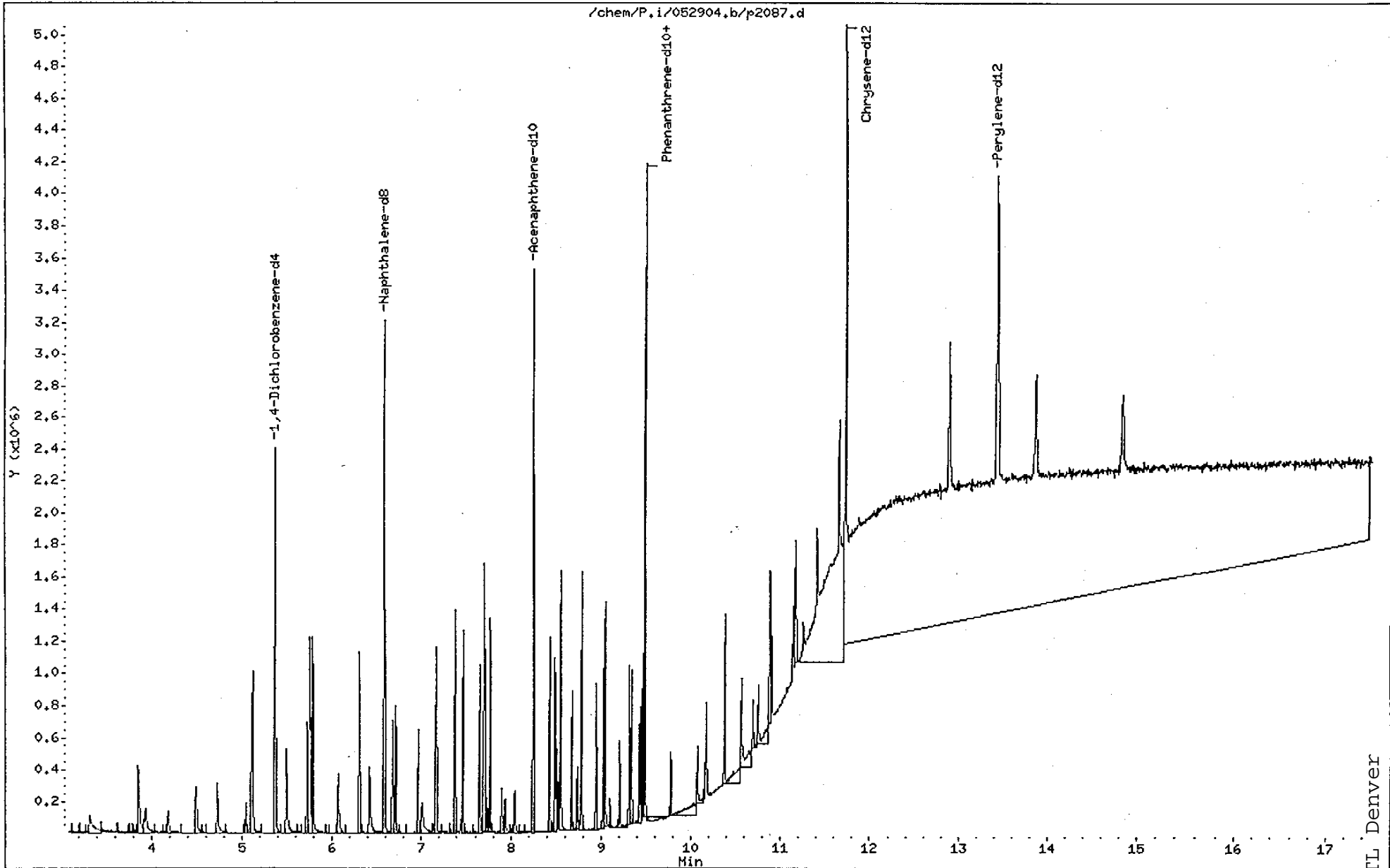
Instrument: P.i

Operator: kidd

Column diameter: 0.25

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1405



STL Denver

*MX*  
*06-03-04*

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2088.d  
 Lab Smp Id: AP9\_0050 Client Smp ID: AP9\_0050  
 Inj Date : 29-MAY-2004 09:46  
 Operator : kiddd Inst ID: P.i  
 Smp Info : AP9\_0050,BNA1406,P:050404,E:073104  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 05:05 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 13:44 Cal File: p2097.d  
 Als bottle: 6 Calibration Sample, Level: 4  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 2-AP9std.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
								CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 22 1,4-Dichlorobenzene-d4	152			5.370	5.370	(1.000)	277853	40.0000	
* 49 Naphthalene-d8	136			6.581	6.581	(1.000)	1043628	40.0000	
* 83 Acenaphthene-d10	164			8.250	8.250	(1.000)	563463	40.0000	
* 117 Phenanthrene-d10	188			9.488	9.488	(1.000)	1000347	40.0000	
* 142 Chrysene-d12	240			11.731	11.731	(1.000)	996445	40.0000	
* 151 Perylene-d12	264			13.432	13.432	(1.000)	894184	40.0000	
7 2-Picoline	93			3.850	3.850	(0.717)	464118	50.0000	53.7734
8 N-Nitrosomethylethylamine	88			3.935	3.935	(0.733)	193501	50.0000	53.6010
9 Methyl methanesulfonate	80			4.179	4.179	(0.778)	139105	50.0000	53.7178
11 N-Nitrosodiethylamine	102			4.487	4.487	(0.836)	194970	50.0000	52.6645
13 Ethyl methanesulfonate	79			4.721	4.721	(0.879)	323097	50.0000	53.9345
19 pentachloroethane	117			5.120	5.120	(0.953)	165681	50.0000	52.8498
31 N-Nitrosopyrrolidine	100			5.752	5.752	(1.071)	202366	50.0000	52.7599
34 N-Nitrosomorpholine	116			5.758	5.758	(1.072)	97011	50.0000	54.7267
35 o-Toluidine	106			5.790	5.790	(1.078)	687407	50.0000	54.1015

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
39 N-Nitrosopiperidine	114	6.066	6.066	(0.922)	195332	50.0000	52.4293
44 O,O,O-Triethyl phosphorothio	198	6.305	6.305	(0.958)	217146	50.0000	52.8699
48 a,a-Dimethylphenethylamine	58	6.417	6.417	(0.975)	677209	50.0000	53.7384
53 2,6-Dichlorophenol	162	6.672	6.672	(1.014)	317462	50.0000	52.5752
54 Hexachloropropene	213	6.709	6.709	(1.019)	255132	50.0000	53.7470
57 N-Nitrosodi-n-butylamine	84	6.959	6.959	(1.057)	262645	50.0000	53.2617
58 p-Phenylenediamine	108	7.001	7.001	(1.064)	317836	50.0000	56.5773
61 Safrole	162	7.161	7.161	(1.088)	322400	50.0000	53.2460
65 1,2,4,5-Tetrachlorobenzene	216	7.464	7.464	(1.134)	389486	50.0000	53.6220
66 Isosafrole (#1)	162	7.442	7.442	(0.902)	35643	8.75000	9.26077 (a)
72 Isosafrole (#2)	104	7.650	7.650	(0.927)	192748	41.2500	43.9762
73 1-Chloronaphthalene	162	7.766	7.766	(0.941)	736875	50.0000	52.9109
75 1,4-Naphthoquinone	158	7.899	7.899	(0.957)	137301	50.0000	52.2337
78 1,4-Dinitrobenzene	168	7.937	7.937	(0.962)	79070	50.0000	53.9521
80 1,3-Dinitrobenzene	168	8.043	8.043	(0.975)	100747	50.0000	49.3086
89 Pentachlorobenzene	250	8.431	8.431	(1.022)	293626	50.0000	53.0533
90 1-Naphthylamine	143	8.489	8.489	(1.029)	718719	50.0000	54.7647
91 2,3,4,6-Tetrachlorophenol	232	8.553	8.553	(1.037)	177729	50.0000	52.8928
92 2-Naphthylamine	143	8.548	8.548	(1.036)	737927	50.0000	55.0755
98 Thionazin	97	8.675	8.675	(1.052)	180841	50.0000	54.0269
100 5-Nitro-o-toluidine	152	8.739	8.739	(1.059)	172716	50.0000	49.6685
182 Diphenylamine	169	8.782	8.782	(1.064)	731925	50.0000	54.4757
104 Sulfotepp	97	8.941	8.941	(0.942)	143822	50.0000	53.1928
105 1,3,5-Trinitrobenzene	213	9.026	9.026	(0.951)	40392	50.0000	53.0174 (Q)
106 Diallate (#1)	86	9.026	9.026	(0.951)	296075	36.0000	37.9628
107 Phorate	121	9.042	9.042	(0.953)	167190	50.0000	52.9089
109 Phenacetin	108	9.042	9.042	(0.953)	313066	50.0000	48.9568
111 Diallate (#2)	86	9.100	9.100	(0.959)	59422	14.0000	14.2116
112 Dimethoate	87	9.207	9.207	(0.970)	240703	50.0000	51.7279
114 4-Aminobiphenyl	169	9.313	9.313	(0.982)	838360	50.0000	52.9996
115 Pentachloronitrobenzene	237	9.430	9.430	(0.994)	94790	50.0000	50.9092
116 Pronamide	173	9.340	9.340	(0.984)	321989	50.0000	52.5830
120 2-secbutyl-4,6-dinitropheno	211	9.483	9.483	(0.999)	108220	50.0000	52.7612
121 Disulfoton	88	9.456	9.456	(0.997)	376114	50.0000	51.6809
124 Methyl parathion	109	9.775	9.775	(1.030)	179464	50.0000	49.3316
126 Parathion	109	10.078	10.078	(1.062)	110766	50.0000	48.1037
127 4-Nitroquinoline-1-oxide	190	10.153	10.153	(1.070)	23546	50.0000	33.2297
128 Methapyrilene	97	10.169	10.169	(1.072)	259987	50.0000	50.4663
129 Isodrin	193	10.376	10.376	(1.094)	132165	50.0000	52.8580
134 Aramite (#1)	185	10.695	10.695	(0.912)	52580	23.0000	24.1293
135 Aramite (#2)	185	10.753	10.753	(0.917)	83193	27.0000	28.9071
136 p-Dimethylaminoazobenzene	120	10.881	10.881	(0.928)	329093	50.0000	54.9927
138 3,3'-Dimethylbenzidine	212	11.168	11.168	(0.952)	635967	50.0000	59.2684 (H)
139 2-Acetylaminofluorene	181	11.407	11.407	(0.972)	365138	50.0000	47.8888
149 7,12-Dimethylbenz(a)anthrac	256	12.895	12.895	(0.960)	544969	50.0000	53.8975 (H)
152 3-Methylcholanthrene	268	13.867	13.867	(1.032)	600359	50.0000	53.0665 (H)
153 Dibenz(a,j)acridine	279	14.840	14.840	(1.105)	976209	50.0000	54.1775

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
-----	----	==	=====	=====	-----	-----	-----
M 1 Total Isosafrole	162				228391	50.0000	53.2439
M 2 Total Diallate	86				355497	50.0000	52.3529
M 3 Total Aramite	185				135773	50.0000	53.1808
165 Chlorobenzilate	251	10.897	10.897	(0.929)	290369	50.0000	55.0744(H)
199 1,4-Dioxane	88	2.989	2.989	(0.557)	205235	50.0000	52.9062
175 Biphenyl	154	7.703	7.703	(0.934)	1008865	50.0000	53.4212

QC Flag Legend

- a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
- Q - Qualifier signal failed the ratio test.
- H - Operator selected an alternate compound hit.

STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2088.d  
 Lab Smp Id: AP9\_0050  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kiddd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 08:27  
 Client Smp ID: AP9\_0050  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	340571	170286	681142	277853	-18.42
49 Naphthalene-d8	1226615	613308	2453230	1043628	-14.92
83 Acenaphthene-d10	656132	328066	1312264	563463	-14.12
117 Phenanthrene-d10	1163805	581902	2327610	1000347	-14.05
142 Chrysene-d12	1266300	633150	2532600	996445	-21.31
151 Perylene-d12	1208372	604186	2416744	894184	-26.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.37	0.09
49 Naphthalene-d8	6.58	6.08	7.08	6.58	-0.01
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	-0.01
117 Phenanthrene-d10	9.49	8.99	9.99	9.49	-0.01
142 Chrysene-d12	11.74	11.24	12.24	11.73	-0.05
151 Perylene-d12	13.44	12.94	13.94	13.43	-0.08

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.

Data File: /chem/P.i/052904,b/p2088.d

Date: 29-MAY-2004 09:46

Client ID: AP9\_0050

Sample Info: AP9\_0050,BNA1406,P:050404,E:073104

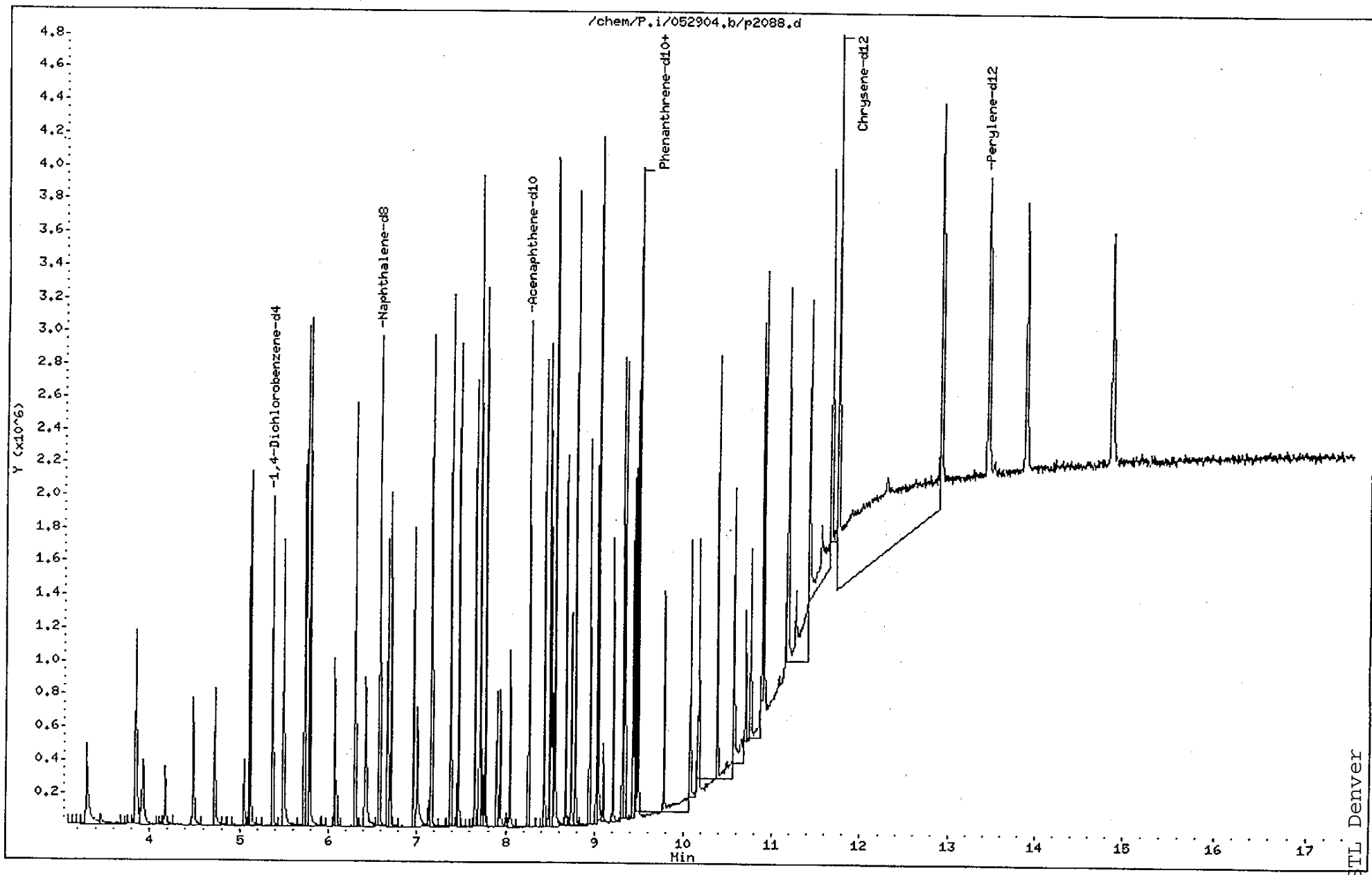
Volume Injected (uL): 0,5

Column phase: Rtx-5ms 30m 0.5um

Instrument: P.i

Operator: kidd

Column diameter: 0.25



*mn*  
06-03-04

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2089.d  
 Lab Smp Id: AP9\_0120 Client Smp ID: AP9\_0120  
 Inj Date : 29-MAY-2004 10:12  
 Operator : kiddd Inst ID: P.i  
 Smp Info : AP9\_0120,BNA1406,P:050404,E:073104  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 05:06 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 14:11 Cal File: p2098.d  
 Als bottle: 7 Calibration Sample, Level: 6  
 Dil Factor: 1.00000 Compound Sublist: 2-AP9std.sub  
 Integrator: HP RTE  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable : Local Compound Variable

Compounds	QUANT SIG	AMOUNTS					
		MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)
* 22 1,4-Dichlorobenzene-d4	152	5.369	5.369	(1.000)	276433	40.0000	
* 49 Naphthalene-d8	136	6.581	6.581	(1.000)	1035866	40.0000	
* 83 Acenaphthene-d10	164	8.255	8.255	(1.000)	573001	40.0000	
* 117 Phenanthrene-d10	188	9.493	9.493	(1.000)	974147	40.0000	
* 142 Chrysene-d12	240	11.746	11.746	(1.000)	1032879	40.0000	
* 151 Perylene-d12	264	13.452	13.452	(1.000)	998371	40.0000	
7 2-Picoline	93	3.844	3.844	(0.716)	1053747	120.000	122.716
8 N-Nitrosomethylethylamine	88	3.929	3.929	(0.732)	444465	120.000	123.752
9 Methyl methanesulfonate	80	4.173	4.173	(0.777)	311189	120.000	120.788
11 N-Nitrosodiethylamine	102	4.487	4.487	(0.836)	447961	120.000	121.623
13 Ethyl methanesulfonate	79	4.721	4.721	(0.879)	717121	120.000	120.324
19 Pentachloroethane	117	5.119	5.119	(0.953)	376847	120.000	120.826
31 N-Nitrosopyrrolidine	100	5.752	5.752	(1.071)	461673	120.000	120.983
34 N-Nitrosomorpholine	116	5.762	5.762	(1.073)	214554	120.000	121.658
35 o-Toluidine	106	5.789	5.789	(1.078)	1473363	120.000	116.555



Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
39 N-Nitrosopiperidine	114	6.065	6.065	(0.922)	447974	120.000	121.142
44 O,O,O-Triethyl phosphorothio	198	6.304	6.304	(0.958)	482341	120.000	118.318
48 a,a-Dimethylphenethylamine	58	6.432	6.432	(0.977)	1505599	120.000	120.369(M)
53 2,6-Dichlorophenol	162	6.671	6.671	(1.014)	727019	120.000	121.305
54 Hexachloropropene	213	6.708	6.708	(1.019)	588198	120.000	124.840
57 N-Nitrosodi-n-butylamine	84	6.958	6.958	(1.057)	606337	120.000	123.880
58 p-Phenylenediamine	108	7.001	7.001	(1.064)	714216	120.000	128.089
61 Safrole	162	7.160	7.160	(1.088)	704266	120.000	117.185
65 1,2,4,5-Tetrachlorobenzene	216	7.463	7.463	(1.134)	843344	120.000	116.976
66 Isosafrole (#1)	162	7.442	7.442	(0.902)	81914	21.0000	20.9286
72 Isosafrole (#2)	104	7.649	7.649	(0.927)	429036	99.0000	96.2568
73 1-Chloronaphthalene	162	7.771	7.771	(0.941)	1600663	120.000	113.022
75 1,4-Naphthoquinone	158	7.899	7.899	(0.957)	317399	120.000	113.215
78 1,4-Dinitrobenzene	168	7.941	7.941	(0.962)	213549	120.000	119.883
80 1,3-Dinitrobenzene	168	8.042	8.042	(0.974)	263119	120.000	116.065
89 Pentachlorobenzene	250	8.430	8.430	(1.021)	639143	120.000	113.560
90 1-Naphthylamine	143	8.489	8.489	(1.028)	1548452	120.000	116.024
91 2,3,4,6-Tetrachlorophenol	232	8.552	8.552	(1.036)	406004	120.000	118.817
92 2-Naphthylamine	143	8.552	8.552	(1.036)	1540998	120.000	113.098
98 Thionazin	97	8.675	8.675	(1.051)	413131	120.000	121.370
100 5-Nitro-o-toluidine	152	8.738	8.738	(1.059)	433467	120.000	113.370
182 Diphenylamine	169	8.781	8.781	(1.064)	1542303	120.000	112.880
104 Sulfotepp	97	8.946	8.946	(0.942)	313862	120.000	119.204
105 1,3,5-Trinitrobenzene	213	9.025	9.025	(0.951)	119617	120.000	119.869(Q)
106 Diallate (#1)	86	9.025	9.025	(0.951)	650193	86.4000	85.6101
107 Phorate	121	9.041	9.041	(0.952)	359343	120.000	116.776
109 Phenacetin	108	9.041	9.041	(0.952)	772456	120.000	115.810
111 Diallate (#2)	86	9.100	9.100	(0.959)	138771	33.6000	34.0818
112 Dimethoate	87	9.211	9.211	(0.970)	549734	120.000	115.587
114 4-Aminobiphenyl	169	9.312	9.312	(0.981)	1836970	120.000	119.253
115 Pentachloronitrobenzene	237	9.435	9.435	(0.994)	219936	120.000	121.299
116 Pronamide	173	9.344	9.344	(0.984)	742443	120.000	124.507
120 2-secbutyl-4,6-dinitropheno	211	9.488	9.488	(0.999)	310421	120.000	121.853
121 Disulfoton	88	9.456	9.456	(0.996)	825333	120.000	116.457
124 Methyl parathion	109	9.780	9.780	(1.030)	471318	120.000	115.995
126 Parathion	109	10.083	10.083	(1.062)	298069	120.000	113.714
127 4-Nitroquinoline-1-oxide	190	10.157	10.157	(1.070)	87823	120.000	127.275
128 Methapyrilene	97	10.179	10.179	(1.072)	581901	120.000	115.991
129 Isodrin	193	10.386	10.386	(1.094)	280642	120.000	115.258
134 Aramite (#1)	185	10.705	10.705	(0.911)	127952	55.2000	56.6469
135 Aramite (#2)	185	10.763	10.763	(0.916)	198604	64.8000	66.5748
136 p-Dimethylaminoazobenzene	120	10.891	10.891	(0.927)	765083	120.000	123.338
138 3,3'-Dimethylbenzidine	212	11.183	11.183	(0.952)	1600021	120.000	126.027(H)
139 2-Acetylaminofluorene	181	11.428	11.428	(0.973)	1093703	120.000	116.856
149 7,12-Dimethylbenz(a)anthrac	256	12.921	12.921	(0.960)	1288329	120.000	114.119(H)
152 3-Methylcholanthrene	268	13.893	13.893	(1.033)	1505837	120.000	119.213
153 Dibenz(a,j)acridine	279	14.866	14.866	(1.105)	2482471	120.000	123.394

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
-----	----	--	-----	-----	-----	-----	-----
M 1 Total Isosafrole	162				510950	120.000	117.133
M 2 Total Diallate	86				788964	120.000	119.313
M 3 Total Aramite	185				326556	120.000	123.396
165 Chlorobenzilate	251	10.912	10.912	(0.929)	669845	120.000	122.568 (H)
199 1,4-Dioxane	88	2.988	2.988	(0.557)	453792	120.000	117.581
175 Biphenyl	154	7.702	7.702	(0.933)	2157788	120.000	112.357

QC Flag Legend

- Q - Qualifier signal failed the ratio test.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2089.d  
 Lab Smp Id: AP9 0120  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kidd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 08:27  
 Client Smp ID: AP9\_0120  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	340571	170286	681142	276433	-18.83
49 Naphthalene-d8	1226615	613308	2453230	1035866	-15.55
83 Acenaphthene-d10	656132	328066	1312264	573001	-12.67
117 Phenanthrene-d10	1163805	581902	2327610	974147	-16.30
142 Chrysene-d12	1266300	633150	2532600	1032879	-18.43
151 Perylene-d12	1208372	604186	2416744	998371	-17.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.37	0.08
49 Naphthalene-d8	6.58	6.08	7.08	6.58	-0.02
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	0.05
117 Phenanthrene-d10	9.49	8.99	9.99	9.49	0.04
142 Chrysene-d12	11.74	11.24	12.24	11.75	0.08
151 Perylene-d12	13.44	12.94	13.94	13.45	0.07

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.

Data File: /chem/P.i/052904.b/p2089.d

Date : 29-MAY-2004 10:12

Client ID: AP9\_0120

Sample Info: AP9\_0120,BNA1406,P:050404,E:073104

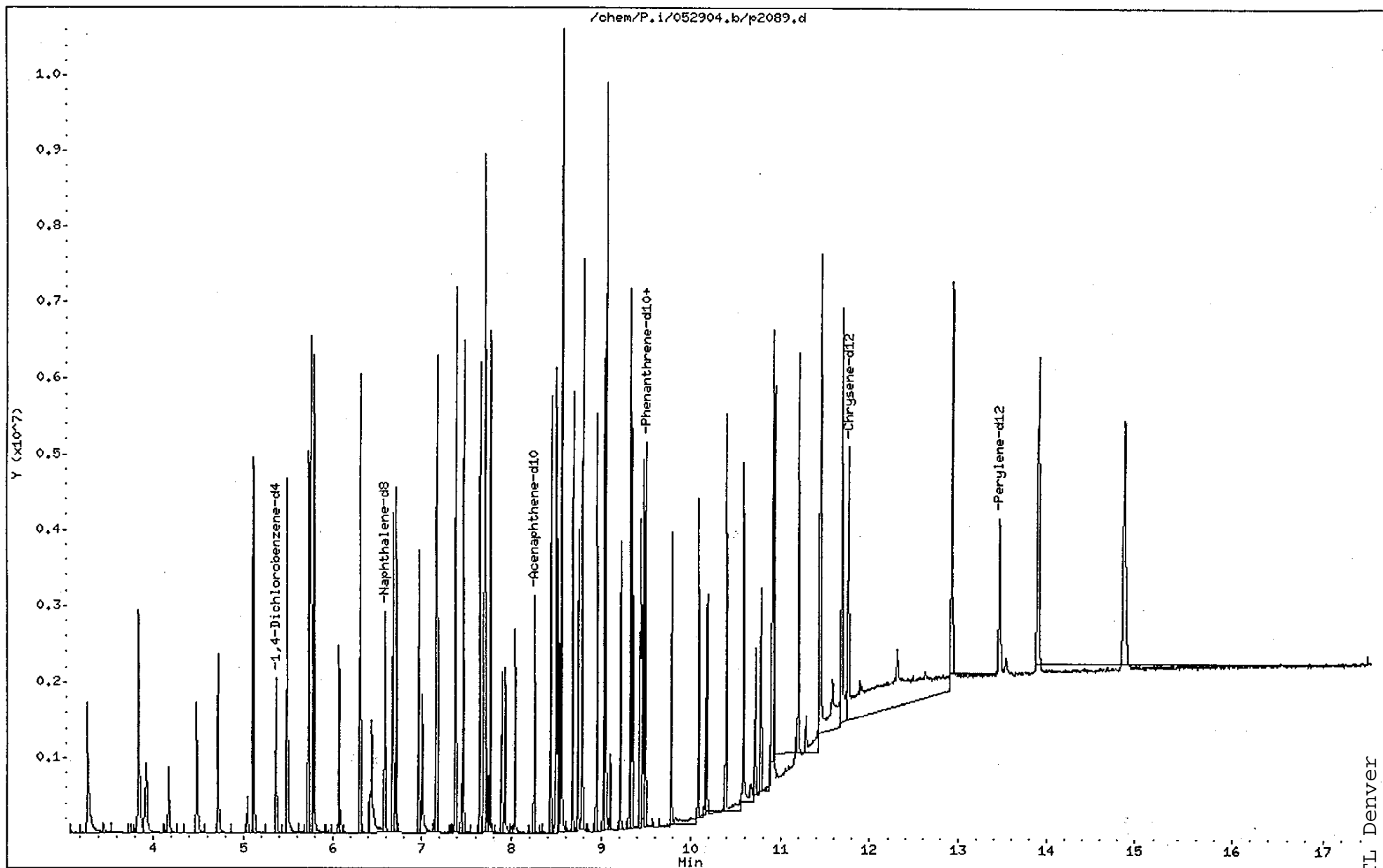
Volume Injected (uL): 0.5

Column phase: Rtx-5ms 30m 0.5um

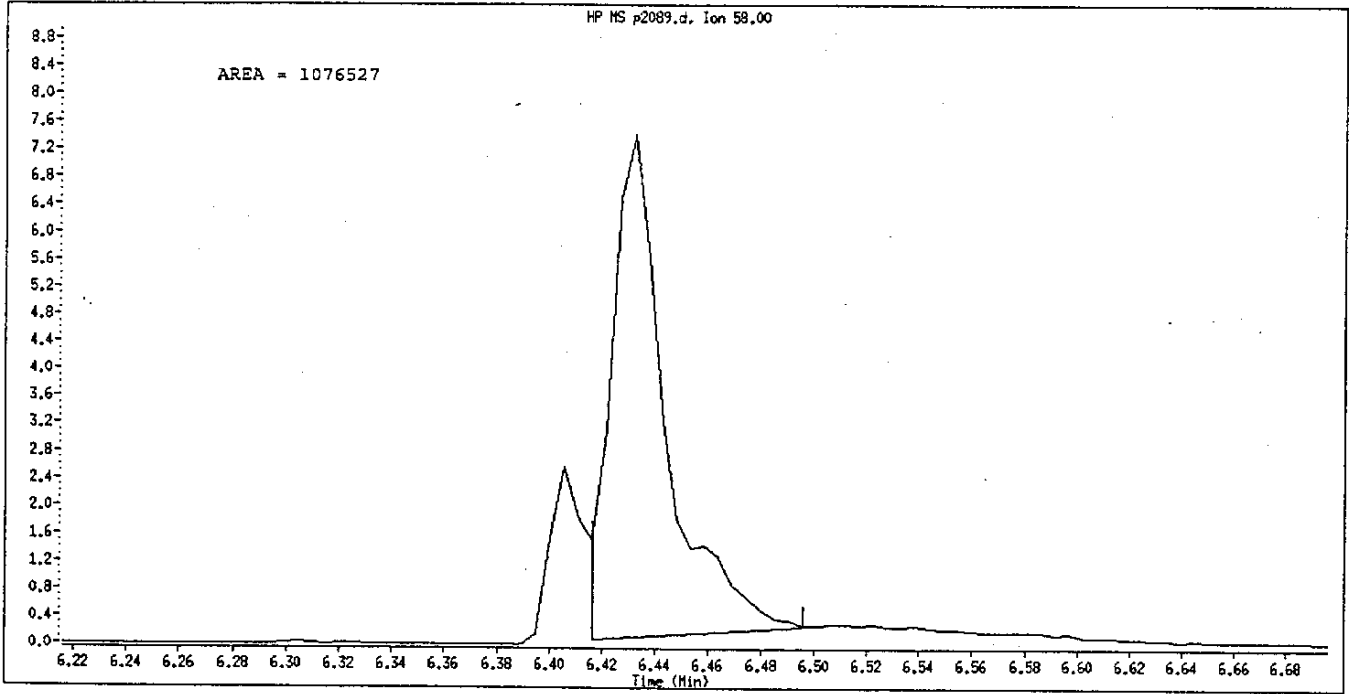
Instrument: P.i

Operator: kidd

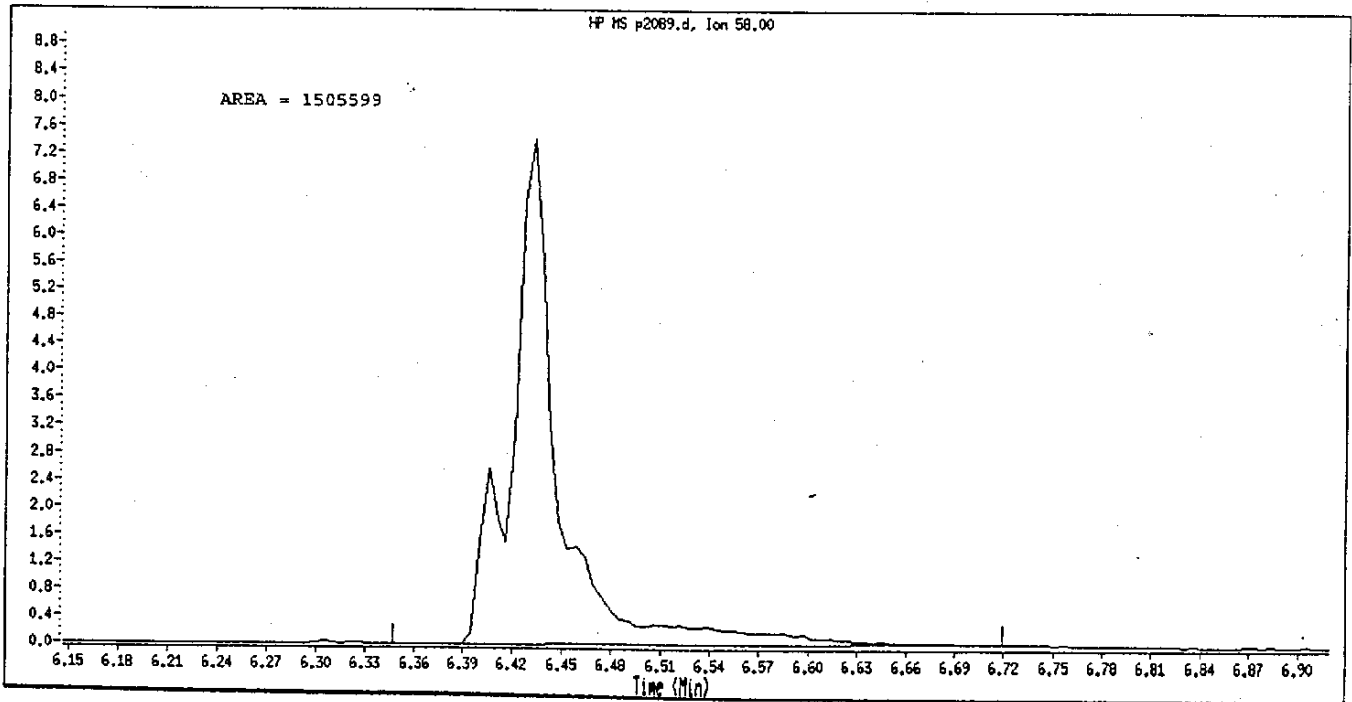
Column diameter: 0.25



Data File Name: p2089.d  
Inj. Date and Time: 29-MAY-2004 10:12  
Instrument ID: P.i  
Client ID: AP9\_0120  
Compound Name: a,a-Dimethylphenethylamine  
CAS #: 122-09-8  
Report Date: 06/03/2004



Original Integration



Manual Integration

Manually Integrated By: Kidd  
Manual Integration Reason: Split Peak

*mx*  
*06-03-04*

*JMP 6/3/04*

*MLL*  
 06-03-04

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2090.d  
 Lab Smp Id: AP9\_0160 Client Smp ID: AP9\_0160  
 Inj Date : 29-MAY-2004 10:39  
 Operator : kiddd Inst ID: P.i  
 Smp Info : AP9\_0160,BNA1406,P:050404,E:073104  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 05:06 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 14:37 Cal File: p2099.d  
 Als bottle: 8 Calibration Sample, Level: 7  
 Dil Factor: 1.00000 Compound Sublist: 2-AP9std.sub  
 Integrator: HP RTE  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
								CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 22 1,4-Dichlorobenzene-d4	152	----		5.369	5.369	(1.000)	301273	40.0000	
* 49 Naphthalene-d8	136	----		6.581	6.581	(1.000)	1093142	40.0000	
* 83 Acenaphthene-d10	164	----		8.249	8.249	(1.000)	584532	40.0000	
* 117 Phenanthrene-d10	188	----		9.493	9.493	(1.000)	1035189	40.0000	
* 142 Chrysene-d12	240	----		11.762	11.762	(1.000)	1142331	40.0000	
* 151 Perylene-d12	264	----		13.474	13.474	(1.000)	1096128	40.0000	
7 2-Picoline	93	----		3.839	3.839	(0.715)	1539965	160.000	164.553
8 N-Nitrosomethylethylamine	88	----		3.929	3.929	(0.732)	669513	160.000	171.042
9 Methyl methanesulfonate	80	----		4.173	4.173	(0.777)	445184	160.000	158.551
11 N-Nitrosodiethylamine	102	----		4.487	4.487	(0.836)	657802	160.000	163.870
13 Ethyl methanesulfonate	79	----		4.721	4.721	(0.879)	1019022	160.000	156.882
19 Pentachloroethane	117	----		5.119	5.119	(0.953)	541439	160.000	159.285
31 N-Nitrosopyrrolidine	100	----		5.757	5.757	(1.072)	680356	160.000	163.590
34 N-Nitrosomorpholine	116	----		5.762	5.762	(1.073)	300881	160.000	156.541
35 o-Toluidine	106	----		5.794	5.794	(1.079)	2102555	160.000	152.615

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
39 N-Nitrosopiperidine	114	6.071	6.071	(0.922)	655603	160.000	168.000
44 O,O,O-Triethyl phosphorothio	198	6.304	6.304	(0.958)	692463	160.000	160.962
48 a,a-Dimethylphenethylamine	58	6.437	6.437	(0.978)	2040368	160.000	154.575 (M)
53 2,6-Dichlorophenol	162	6.671	6.671	(1.014)	1053351	160.000	166.545
54 Hexachloropropene	213	6.708	6.708	(1.019)	841028	160.000	169.149
57 N-Nitrosodi-n-butylamine	84	6.963	6.963	(1.058)	877499	160.000	169.888
58 p-Phenylenediamine	108	7.001	7.001	(1.064)	919656	160.000	156.291
61 Safrole	162	7.160	7.160	(1.088)	1021404	160.000	161.049
65 1,2,4,5-Tetrachlorobenzene	216	7.463	7.463	(1.134)	1186421	160.000	155.940
66 Isosafrole (#1)	162	7.442	7.442	(0.902)	116824	28.0000	29.2592
72 Isosafrole (#2)	104	7.649	7.649	(0.927)	612110	132.000	134.621
73 1-Chloronaphthalene	162	7.771	7.771	(0.942)	2265132	160.000	156.784
75 1,4-Naphthoquinone	158	7.893	7.893	(0.957)	439587	160.000	152.154
78 1,4-Dinitrobenzene	168	7.941	7.941	(0.963)	334964	160.000	165.781
80 1,3-Dinitrobenzene	168	8.042	8.042	(0.975)	407444	160.000	172.692
89 Pentachlorobenzene	250	8.436	8.436	(1.023)	906613	160.000	157.905
90 1-Naphthylamine	143	8.494	8.494	(1.030)	2220541	160.000	163.101
91 2,3,4,6-Tetrachlorophenol	232	8.552	8.552	(1.037)	603114	160.000	173.019
92 2-Naphthylamine	143	8.552	8.552	(1.037)	2301815	160.000	165.605
98 Thionazin	97	8.675	8.675	(1.052)	607168	160.000	174.855
100 5-Nitro-o-toluidine	152	8.738	8.738	(1.059)	679828	160.000	170.925
182 Diphenylamine	169	8.786	8.786	(1.065)	2245839	160.000	161.128
104 Sulfotepp	97	8.946	8.946	(0.942)	455900	160.000	162.940
105 1,3,5-Trinitrobenzene	213	9.031	9.031	(0.951)	205218	160.000	166.161 (Q)
106 Diallate (#1)	86	9.031	9.031	(0.951)	944272	115.200	117.000
107 Phorate	121	9.047	9.047	(0.953)	515469	160.000	157.635
109 Phenacetin	108	9.047	9.047	(0.953)	1198813	160.000	166.660
111 Diallate (#2)	86	9.105	9.105	(0.959)	201333	44.8000	46.5311
112 Dimethoate	87	9.211	9.211	(0.970)	804300	160.000	157.534
114 4-Aminobiphenyl	169	9.318	9.318	(0.982)	2622266	160.000	160.195
115 Pentachloronitrobenzene	237	9.435	9.435	(0.994)	324161	160.000	168.238
116 Pronamide	173	9.344	9.344	(0.984)	1096855	160.000	173.095
120 2-secbutyl-4,6-dinitropheno	211	9.488	9.488	(0.999)	512742	160.000	165.599
121 Disulfoton	88	9.461	9.461	(0.997)	1221104	160.000	162.142
124 Methyl parathion	109	9.785	9.785	(1.031)	718503	160.000	162.037
126 Parathion	109	10.088	10.088	(1.063)	471605	160.000	163.981
127 4-Nitroquinoline-1-oxide	190	10.168	10.168	(1.071)	176047	160.000	240.087 (AQ)
128 Methapyrilene	97	10.184	10.184	(1.073)	844808	160.000	158.467
129 Isodrin	193	10.391	10.391	(1.095)	416552	160.000	160.988
134 Aramite (#1)	185	10.715	10.715	(0.911)	196515	73.6000	78.6651
135 Aramite (#2)	185	10.774	10.774	(0.916)	302441	85.4000	91.6685
136 p-Dimethylaminoazobenzene	120	10.901	10.901	(0.927)	1134679	160.000	165.394
138 3,3'-Dimethylbenzidine	212	11.199	11.199	(0.952)	2384996	160.000	154.746 (H)
139 2-Acetylaminofluorene	181	11.443	11.443	(0.973)	1755529	160.000	164.455
149 7,12-Dimethylbenz(a)anthrac	256	12.942	12.942	(0.961)	1944187	160.000	156.856 (H)
152 3-Methylcholanthrene	268	13.920	13.920	(1.033)	2291738	160.000	165.249
153 Dibenz(a,j)acridine	279	14.898	14.898	(1.106)	3751454	160.000	169.840

Compounds	QUANT SIG			AMOUNTS		
	MASS	RT	EXP RT REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
-----	----	--	-----	-----	-----	-----
M 1 Total Isosafrole	162			728934	160.000	163.808
M 2 Total Diallyate	86			1145605	160.000	163.031
M 3 Total Aramite	185			498956	160.000	170.477
165 Chlorobenzilate	251	10.923	10.923 (0.929)	1014687	160.000	167.878 (H)
199 1,4-Dioxane	88	2.988	2.988 (0.557)	655756	160.000	155.902
175 Biphenyl	154	7.702	7.702 (0.934)	3062963	160.000	156.343

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- Q - Qualifier signal failed the ratio test.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.



STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2090.d  
 Lab Smp Id: AP9\_0160  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kidd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 08:27  
 Client Smp ID: AP9\_0160  
 Level: LOW  
 Sample Type: WATER

Test Mode: Use Last Continuing Calibrator.

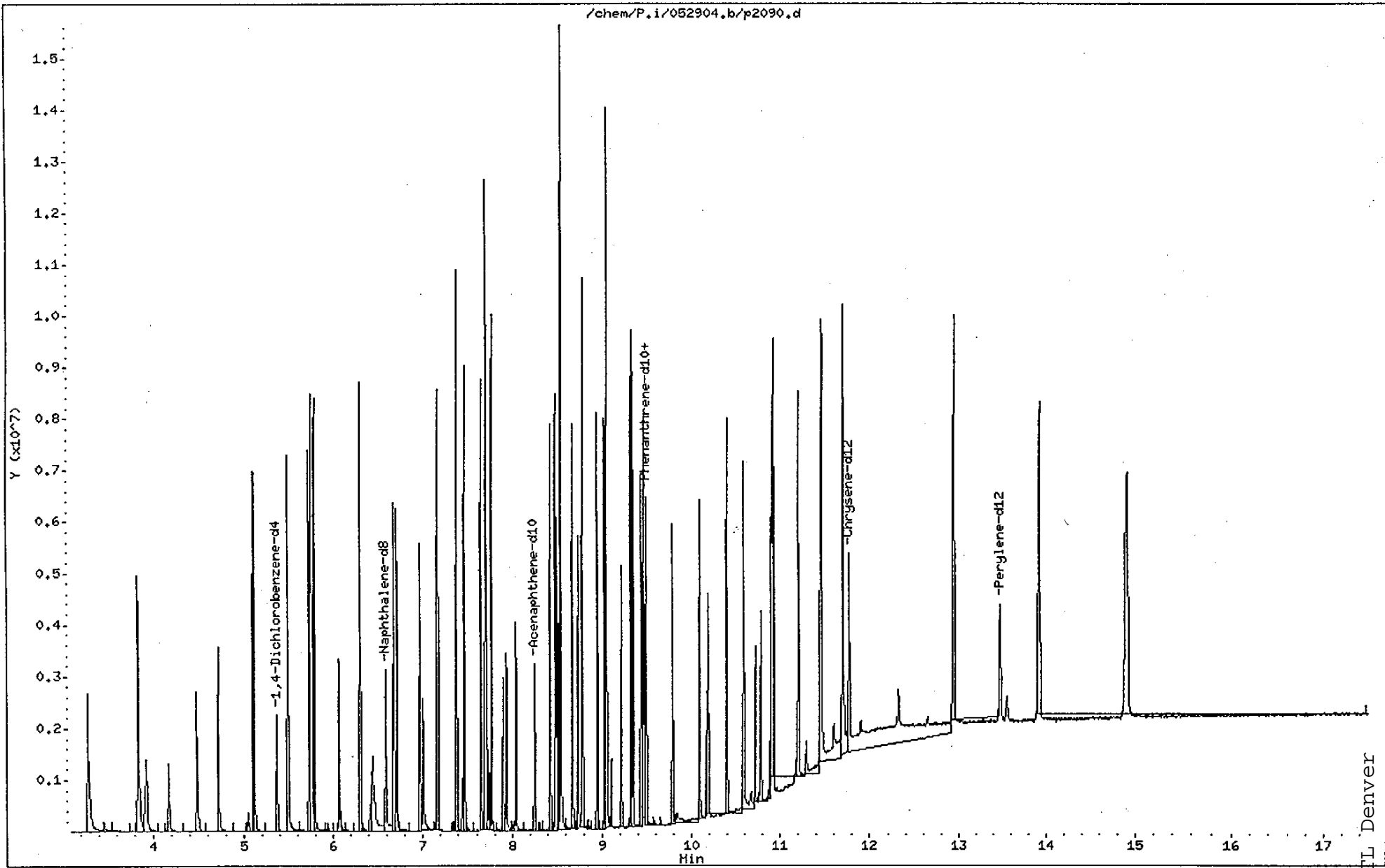
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	340571	170286	681142	301273	-11.54
49 Naphthalene-d8	1226615	613308	2453230	1093142	-10.88
83 Acenaphthene-d10	656132	328066	1312264	584532	-10.91
117 Phenanthrene-d10	1163805	581902	2327610	1035189	-11.05
142 Chrysene-d12	1266300	633150	2532600	1142331	-9.79
151 Perylene-d12	1208372	604186	2416744	1096128	-9.29

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.37	0.08
49 Naphthalene-d8	6.58	6.08	7.08	6.58	-0.02
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	-0.01
117 Phenanthrene-d10	9.49	8.99	9.99	9.49	0.04
142 Chrysene-d12	11.74	11.24	12.24	11.76	0.22
151 Perylene-d12	13.44	12.94	13.94	13.47	0.23

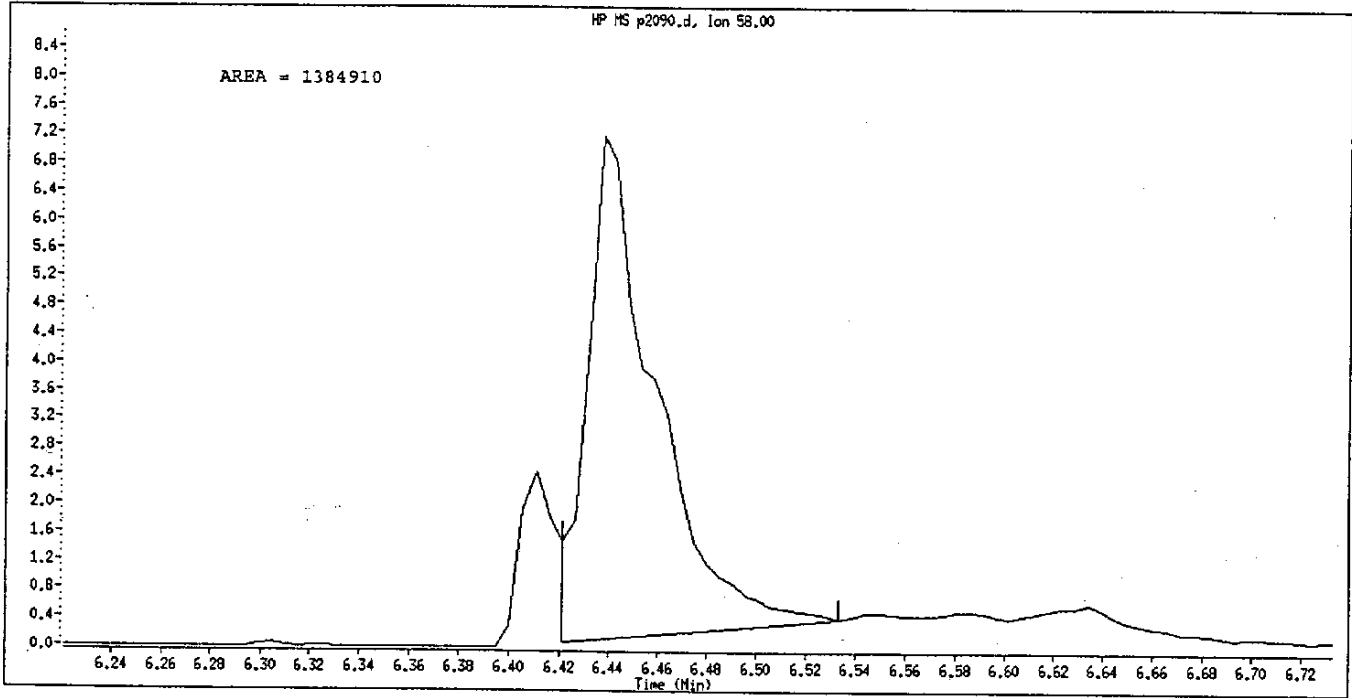
AREA UPPER LIMIT = +100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem/P.i/052904.b/p2090.d  
Date : 29-MAY-2004 10:39  
Client ID: AP9\_0160  
Sample Info: AP9\_0160,BNA1406,P:050404,E:073104  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

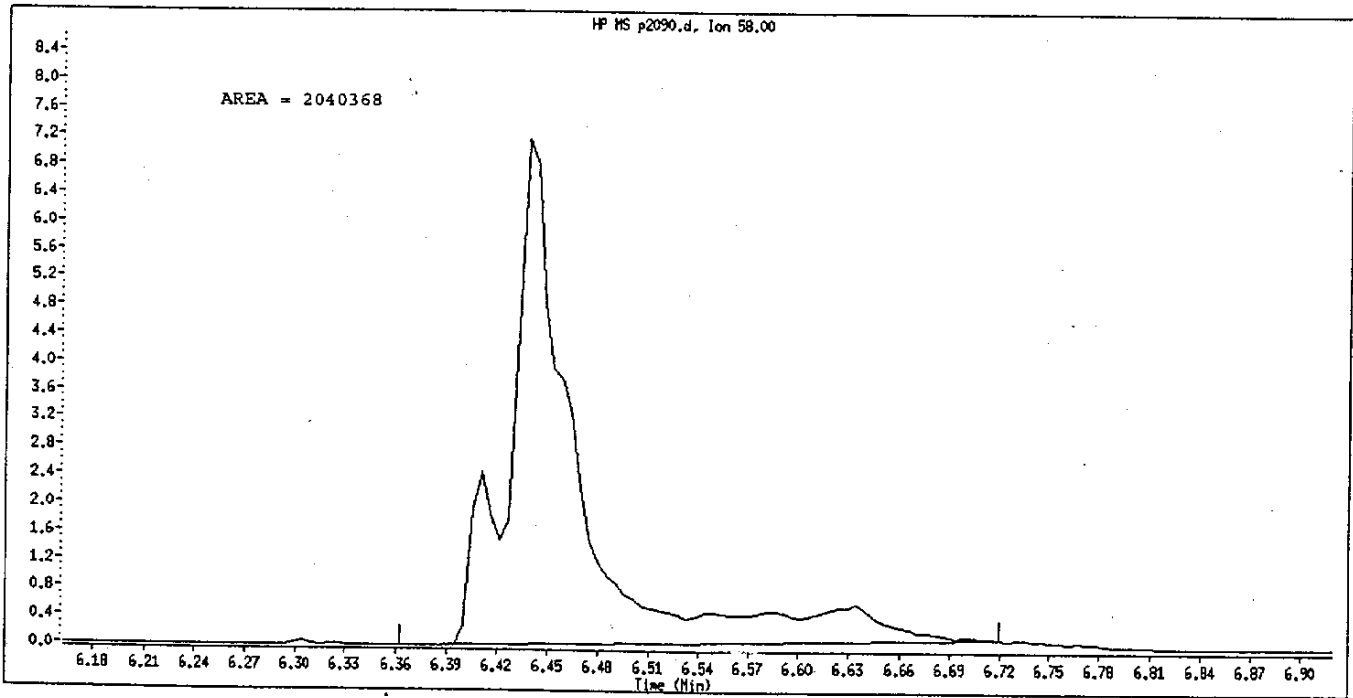
Instrument: P.i  
Operator: kidd  
Column diameter: 0.25



Data File Name: p2090.d  
Inj. Date and Time: 29-MAY-2004 10:39  
Instrument ID: P.i  
Client ID: AP9\_0160  
Compound Name: a,a-Dimethylphenethylamine  
CAS #: 122-09-8  
Report Date: 06/03/2004



Original Integration



Manual Integration

Manually Integrated By: kidd  
Manual Integration Reason: Split Peak

*mw*  
06-03-04

*JMP 6/3/04*

*MW*  
*06-03-04*

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2091.d  
 Lab Smp Id: AP9 0200 Client Smp ID: AP9\_0200  
 Inj Date : 29-MAY-2004 11:05  
 Operator : kidd Inst ID: P.i  
 Smp Info : AP9\_0200,BNA1406,P:050404,E:073104  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 05:07 kidd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 15:04 Cal File: p2100.d  
 Als bottle: 9 Calibration Sample, Level: 8  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 2-AP9std.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 22 1,4-Dichlorobenzene-d4	152	5.369	5.369	(1.000)	331830	40.0000	
* 49 Naphthalene-d8	136	6.581	6.581	(1.000)	1186933	40.0000	
* 83 Acenaphthene-d10	164	8.255	8.255	(1.000)	637035	40.0000	
* 117 Phenanthrene-d10	188	9.488	9.488	(1.000)	1050521	40.0000	
* 142 Chrysene-d12	240	11.731	11.731	(1.000)	1138931	40.0000	
* 151 Perylene-d12	264	13.437	13.437	(1.000)	1044426	40.0000	
7 2-Picoline	93	3.839	3.839	(0.715)	2154585	200.000	209.027(A)
8 N-Nitrosomethylethylamine	88	3.929	3.929	(0.732)	953287	200.000	221.112(A)
9 Methyl methanesulfonate	80	4.174	4.174	(0.777)	592890	200.000	191.712
11 N-Nitrosodiethylamine	102	4.487	4.487	(0.836)	948289	200.000	214.482(A)
13 Ethyl methanesulfonate	79	4.721	4.721	(0.879)	1422854	200.000	198.881
19 Pentachloroethane	117	5.120	5.120	(0.953)	756315	200.000	202.010(A)
31 N-Nitrosopyrrolidine	100	5.757	5.757	(1.072)	964987	200.000	210.662(A)
34 N-Nitrosomorpholine	116	5.768	5.768	(1.074)	421380	200.000	199.045
35 o-Toluidine	106	5.795	5.795	(1.079)	2854908	200.000	188.142

Compounds	QUANT SIG				AMOUNTS		
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
39 N-Nitrosopiperidine	114	6.071	6.071	(0.922)	929170	200.000	219.288(A)
44 O,O,O-Triethyl phosphorothio	198	6.305	6.305	(0.958)	975323	200.000	208.797(A)
48 a,a-Dimethylphenethylamine	58	6.454	6.454	(0.981)	2540246	200.000	177.238(M)
53 2,6-Dichlorophenol	162	6.671	6.671	(1.014)	1495156	200.000	217.719(A)
54 Hexachloropropene	213	6.709	6.709	(1.019)	1201507	200.000	222.554(A)
57 N-Nitrosodi-n-butylamine	84	6.964	6.964	(1.058)	1224452	200.000	218.327(A)
58 p-Phenylenediamine	108	7.001	7.001	(1.064)	1107498	200.000	173.341
61 Safrole	162	7.166	7.166	(1.089)	1427499	200.000	207.294(A)
65 1,2,4,5-Tetrachlorobenzene	216	7.463	7.463	(1.134)	1643422	200.000	198.939
66 Isosafrole (#1)	162	7.442	7.442	(0.902)	170221	35.0000	39.1190
72 Isosafrole (#2)	104	7.649	7.649	(0.927)	854045	165.000	172.350
73 1-Chloronaphthalene	162	7.772	7.772	(0.941)	3139106	200.000	199.370
75 1,4-Naphthoquinone	158	7.894	7.894	(0.956)	558147	200.000	176.553
78 1,4-Dinitrobenzene	168	7.942	7.942	(0.962)	474475	200.000	197.054
80 1,3-Dinitrobenzene	168	8.043	8.043	(0.974)	547865	200.000	211.494(A)
89 Pentachlorobenzene	250	8.436	8.436	(1.022)	1268193	200.000	202.677(A)
90 1-Naphthylamine	143	8.494	8.494	(1.029)	2945396	200.000	198.512
91 2,3,4,6-Tetrachlorophenol	232	8.553	8.553	(1.036)	759133	200.000	199.829
92 2-Naphthylamine	143	8.553	8.553	(1.036)	2979325	200.000	196.682
98 Thionazin	97	8.675	8.675	(1.051)	809298	200.000	213.857(A)
100 5-Nitro-o-toluidine	152	8.739	8.739	(1.059)	920246	200.000	210.784(A)
182 Diphenylamine	169	8.787	8.787	(1.064)	2942184	200.000	193.690
104 Sulfotepp	97	8.946	8.946	(0.943)	599113	200.000	211.000(A)
105 1,3,5-Trinitrobenzene	213	9.026	9.026	(0.951)	284136	200.000	197.121(Q)
106 Diallate (#1)	86	9.026	9.026	(0.951)	1230334	144.000	150.219
107 Phorate	121	9.042	9.042	(0.953)	690738	200.000	208.150(A)
109 Phenacetin	108	9.047	9.047	(0.954)	1598552	200.000	217.303(A)
111 Diallate (#2)	86	9.100	9.100	(0.959)	267378	56.0000	60.8932
112 Dimethoate	87	9.212	9.212	(0.971)	1078840	200.000	206.853(A)
114 4-Aminobiphenyl	169	9.313	9.313	(0.982)	3430021	200.000	206.483(A)
115 Pentachloronitrobenzene	237	9.430	9.430	(0.994)	437143	200.000	223.565(A)
116 Pronamide	173	9.345	9.345	(0.985)	1455473	200.000	226.336(A)
120 2-secbutyl-4,6-dinitropheno	211	9.483	9.483	(0.999)	711729	200.000	197.101
121 Disulfoton	88	9.456	9.456	(0.997)	1590787	200.000	208.146(A)
124 Methyl parathion	109	9.780	9.780	(1.031)	953970	200.000	208.903(A)
126 Parathion	109	10.078	10.078	(1.062)	636358	200.000	214.446(A)
127 4-Nitroquinoline-1-oxide	190	10.152	10.152	(1.070)	247648	200.000	332.805(AQH)
128 Methapyrilene	97	10.174	10.174	(1.072)	1087822	200.000	201.073(A)
129 Isodrin	193	10.381	10.381	(1.094)	552498	200.000	210.412(A)
134 Aramite (#1)	185	10.694	10.694	(0.912)	263278	92.0000	105.705
135 Aramite (#2)	185	10.758	10.758	(0.917)	399303	108.000	121.388
136 p-Dimethylaminoazobenzene	120	10.880	10.880	(0.928)	1459185	200.000	213.330(A)
138 3,3'-Dimethylbenzidine	212	11.173	11.173	(0.952)	3101885	200.000	205.873(AH)
139 2-Acetylaminofluorene	181	11.417	11.417	(0.973)	2260595	200.000	209.080(A)
149 7,12-Dimethylbenz(a)anthrac	256	12.905	12.905	(0.960)	2459537	200.000	208.257(AH)
152 3-Methylcholanthrene	268	13.883	13.883	(1.033)	2818625	200.000	213.302(A)
153 Dibenz(a,j)acridine	279	14.856	14.856	(1.106)	4475564	200.000	212.654(A)

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
-----	----	==	-----	-----	-----	-----	-----
M 1 Total Isosafrole	162				1024266	200.000	211.206(A)
M 2 Total Diallate	86				1497712	200.000	210.029(A)
M 3 Total Aramite	185				662581	200.000	227.058(A)
165 Chlorobenzilate	251	10.902	10.902	(0.929)	1336352	200.000	221.756(AH)
199 1,4-Dioxane	88	2.989	2.989	(0.557)	917478	200.000	198.039
175 Biphenyl	154	7.702	7.702	(0.933)	4156700	200.000	194.684

QC Flag Legend

- A - Target compound detected but, quantitated amount exceeded maximum amount.
- Q - Qualifier signal failed the ratio test.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2091.d  
 Lab Smp Id: AP9\_0200  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kiddd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 08:27  
 Client Smp ID: AP9\_0200  
 Level: LOW  
 Sample Type: WATER

Test Mode: Use Last Continuing Calibrator.

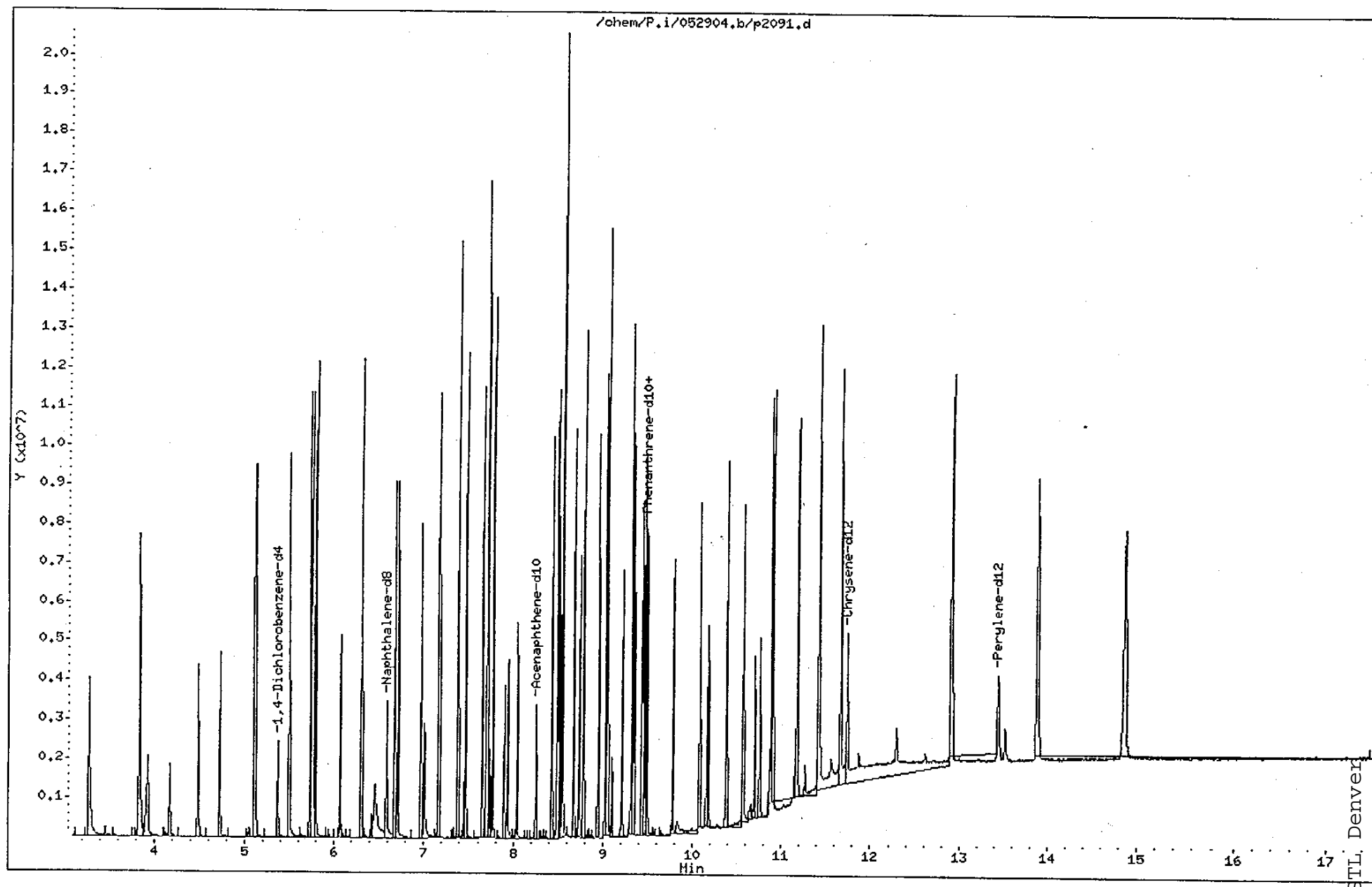
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	340571	170286	681142	331830	-2.57
49 Naphthalene-d8	1226615	613308	2453230	1186933	-3.24
83 Acenaphthene-d10	656132	328066	1312264	637035	-2.91
117 Phenanthrene-d10	1163805	581902	2327610	1050521	-9.73
142 Chrysene-d12	1266300	633150	2532600	1138931	-10.06
151 Perylene-d12	1208372	604186	2416744	1044426	-13.57

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.37	0.08
49 Naphthalene-d8	6.58	6.08	7.08	6.58	-0.01
83 Acenaphthene-d10	8.25	7.75	8.75	8.26	0.05
117 Phenanthrene-d10	9.49	8.99	9.99	9.49	-0.01
142 Chrysene-d12	11.74	11.24	12.24	11.73	-0.05
151 Perylene-d12	13.44	12.94	13.94	13.44	-0.05

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.

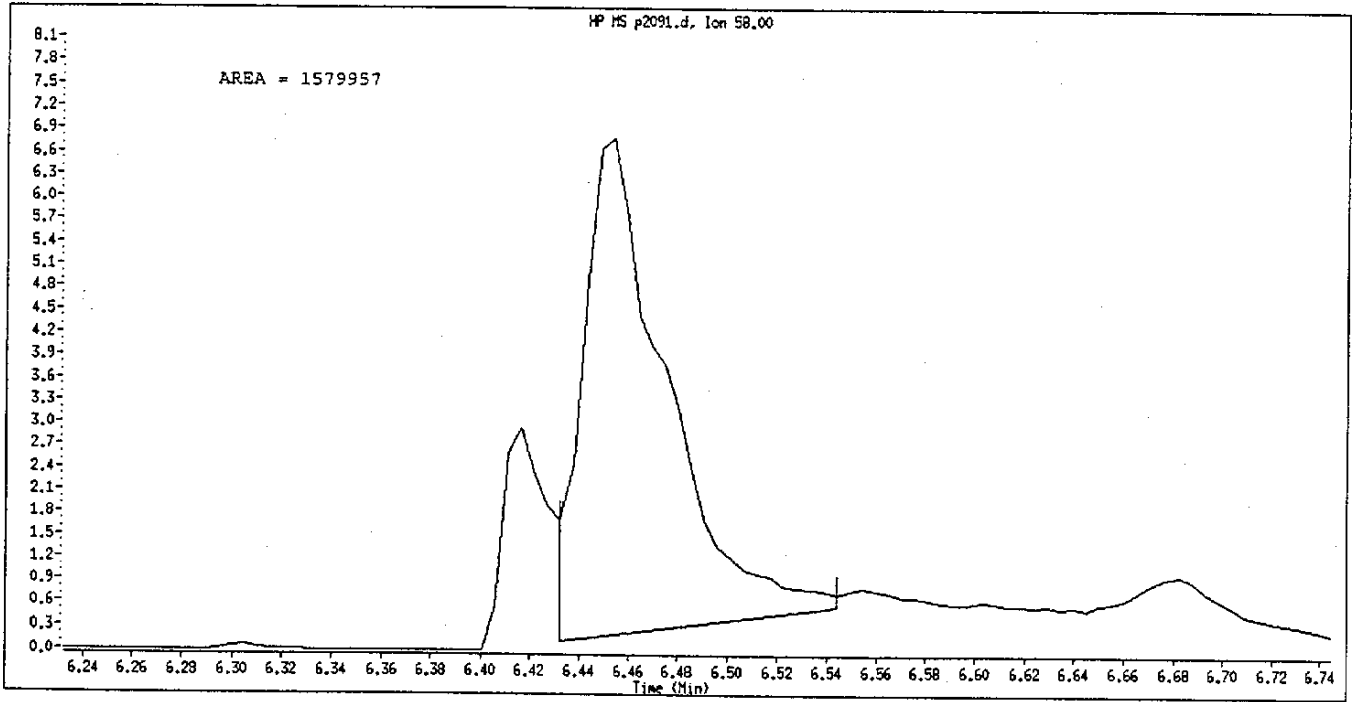
Data File: /chem/P.i/052904,b/p2091.d  
Date : 29-MAY-2004 11:05  
Client ID: AP9\_0200  
Sample Info: AP9\_0200,BNA1406,P:050404,E:073104  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

Instrument: P.i  
Operator: kidd  
Column diameter: 0.25

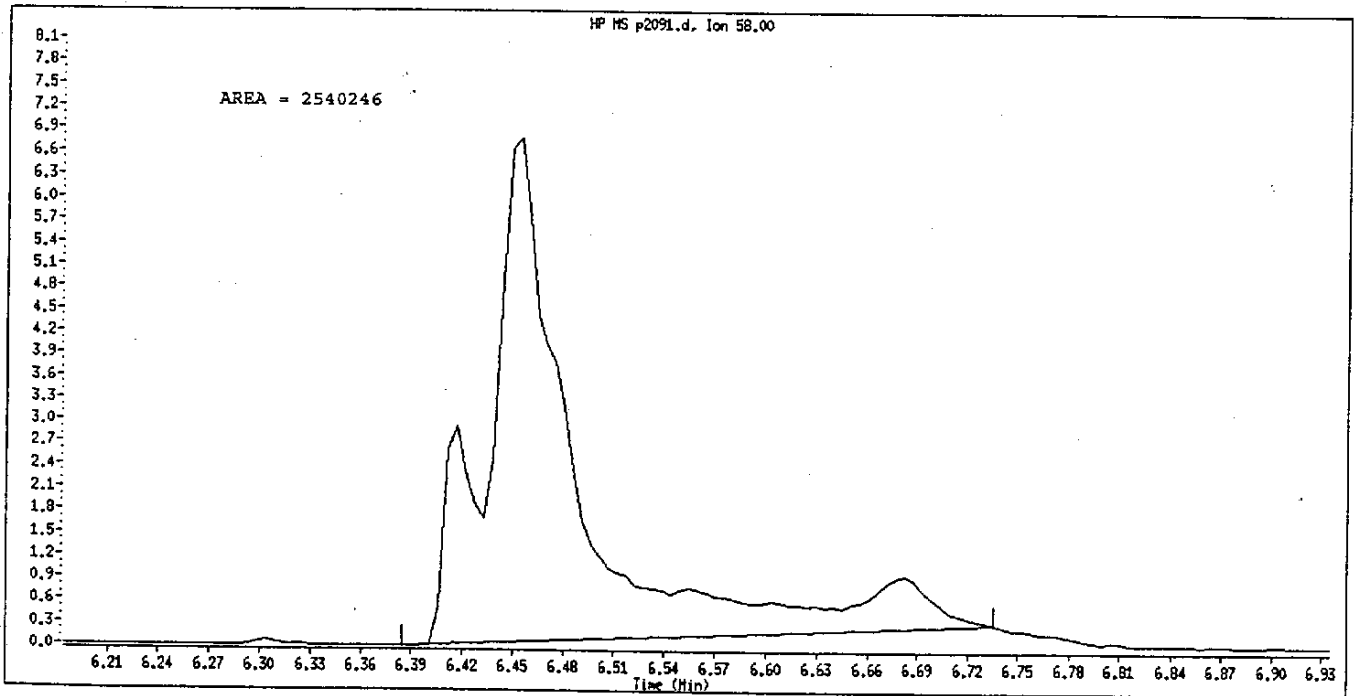




Data File Name: p2091.d  
Inj. Date and Time: 29-MAY-2004 11:05  
Instrument ID: P.i  
Client ID: AP9\_0200  
Compound Name: a,a-Dimethylphenethylamine  
CAS #: 122-09-8  
Report Date: 06/03/2004



Original Integration



Manual Integration

Manually Integrated By: kidd  
Manual Integration Reason: Split Peak

*MLK*  
06-03-04

*JMP* 6/3/04

*MM*  
 06-03-04

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BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/052904.b/p2092.d  
 Lab Smp Id: AP9\_0100 SSV Client Smp ID: AP9\_0100 SSV  
 Inj Date : 29-MAY-2004 11:32  
 Operator : kiddd Inst ID: P.i  
 Smp Info : AP9\_0100 SSV,BNA1417,P:050404,E:071304  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/052904.b/8270C.m  
 Meth Date : 03-Jun-2004 05:07 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 15:04 Cal File: p2100.d  
 Als bottle: 10 QC Sample: SSV  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 2-AP9std.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/ml)	FINAL (ug/L)
* 22 1,4-Dichlorobenzene-d4	152		5.365	5.369	(1.000)	290102	40.0000	
* 49 Naphthalene-d8	136		6.582	6.581	(1.000)	1068802	40.0000	
* 83 Acenaphthene-d10	164		8.250	8.255	(1.000)	573599	40.0000	
* 117 Phenanthrene-d10	188		9.489	9.488	(1.000)	1026831	40.0000	
* 142 Chrysene-d12	240		11.747	11.731	(1.000)	1187941	40.0000	
* 151 Perylene-d12	264		13.459	13.437	(1.000)	1079923	40.0000	
7 2-Picoline	93		3.845	3.839	(0.717)	813430	90.2660	90.2660
8 N-Nitrosomethylethylamine	88		3.930	3.929	(0.733)	396146	105.102	105.102
9 Methyl methanesulfonate	80		4.174	4.174	(0.778)	437449	161.796	161.796(R)
11 N-Nitrosodiethylamine	102		4.488	4.487	(0.837)	402851	104.222	104.222
13 Ethyl methanesulfonate	79		4.722	4.721	(0.880)	613256	98.0482	98.0482
19 Pentachloroethane	117		5.120	5.120	(0.954)	309321	94.5028	94.5028
31 N-Nitrosopyrrolidine	100		5.758	5.757	(1.073)	413954	103.367	103.367(Q)
34 N-Nitrosomorpholine	116		5.763	5.768	(1.074)	180932	97.7592	97.7592
35 o-Toluidine	106		5.790	5.795	(1.079)	1292800	97.4521	97.4521

Compounds	QUANT SIG			CONCENTRATIONS			
	MASS	RT	EXP RT REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/L)	
-----	----	--	-----	-----	-----	-----	-----
39 N-Nitrosopiperidine	114	6.066	6.071 (0.922)	381768	100.057	100.057	
44 O,O,O-Triethyl phosphorothio	198	6.305	6.305 (0.958)	413013	98.1903	98.1903 (Q)	
48 a,a-Dimethylphenethylamine	58	6.677	6.454 (1.015)	1075657	83.3460	83.3460 (QM)	
53 2,6-Dichlorophenol	162	6.667	6.671 (1.013)	618715	100.053	100.053	
54 Hexachloropropene	213	6.709	6.709 (1.019)	588641	121.084	121.084	
57 N-Nitrosodi-n-butylamine	84	6.959	6.964 (1.057)	488890	96.8067	96.8067	
58 p-Phenylenediamine	108	7.007	7.001 (1.065)	264929	46.0487	46.0487	
61 Safrole	162	7.161	7.166 (1.088)	595747	96.0732	96.0732	
65 1,2,4,5-Tetrachlorobenzene	216	7.464	7.463 (1.134)	699111	93.9821	93.9821	
66 Isosafrole (#1)	162	7.443	7.442 (0.902)	99090	25.2906	25.2906	
72 Isosafrole (#2)	104	7.650	7.649 (0.927)	360224	80.7342	80.7342	
73 1-Chloronaphthalene	162	7.767	7.772 (0.941)	1204490	84.9594	84.9594	
75 1,4-Naphthoquinone	158	7.894	7.894 (0.957)	453914	159.881	159.881 (R)	
78 1,4-Dinitrobenzene	168	7.937	7.942 (0.962)	204925	115.929	115.929	
80 1,3-Dinitrobenzene	168	8.043	8.043 (0.975)	246525	109.063	109.063	
89 Pentachlorobenzene	250	8.431	8.436 (1.022)	524227	93.0452	93.0452	
90 1-Naphthylamine	143	8.490	8.494 (1.029)	1231314	92.1653	92.1653	
91 2,3,4,6-Tetrachlorophenol	232	8.553	8.553 (1.037)	349678	102.226	102.226	
92 2-Naphthylamine	143	8.553	8.553 (1.037)	1319487	96.7402	96.7402	
98 Thionazin	97	8.676	8.675 (1.052)	351148	103.053	103.053	
100 5-Nitro-o-toluidine	152	8.739	8.739 (1.059)	429676	112.323	112.323	
182 Diphenylamine	169	8.782	8.787 (1.064)	1318854	96.4251	96.4251	
104 Sulfotepp	97	8.941	8.946 (0.942)	270864	97.5957	97.5956	
105 1,3,5-Trinitrobenzene	213	9.032	9.026 (0.952)	121492	116.677	116.676	
106 Diallate (#1)	86	9.026	9.026 (0.951)	549781	68.6749	68.6749	
107 Phorate	121	9.042	9.042 (0.953)	314270	96.8886	96.8886	
109 Phenacetin	108	9.042	9.047 (0.953)	709702	101.631	101.631	
111 Diallate (#2)	86	9.101	9.100 (0.959)	109154	25.4325	25.4325	
112 Dimethoate	87	9.212	9.212 (0.971)	529949	106.074	106.074	
114 4-Aminobiphenyl	169	9.313	9.313 (0.982)	1552944	95.6421	95.6421	
115 Pentachloronitrobenzene	237	9.436	9.430 (0.994)	190981	99.9253	99.9253	
116 Pronamide	173	9.340	9.345 (0.984)	640318	101.871	101.871	
120 2-secbutyl-4,6-dinitropheno	211	9.483	9.483 (0.999)	332074	123.196	123.196	
121 Disulfoton	88	9.457	9.456 (0.997)	662776	88.7216	88.7216	
124 Methyl parathion	109	9.781	9.780 (1.031)	447725	105.528	105.528	
126 Parathion	109	10.084	10.078 (1.063)	259525	95.8249	95.8249	
127 4-Nitroquinoline-1-oxide	190	10.158	10.152 (1.071)	95171	130.848	130.848	
128 Methapyrilene	97	10.180	10.174 (1.073)	699363	132.253	132.252	
129 Isodrin	193	10.387	10.381 (1.095)	265847	103.580	103.580	
134 Aramite (#1)	185	10.706	10.694 (0.911)	123573	47.5671	47.5671 (R)	
135 Aramite (#2)	185	10.764	10.758 (0.916)	160238	46.7027	46.7027	
136 p-Dimethylaminoazobenzene	120	10.892	10.880 (0.927)	755053	105.833	105.833	
138 3,3'-Dimethylbenzidine	212	11.184	11.173 (0.952)	1505505	97.7404	97.7404	
139 2-Acetylaminofluorene	181	11.428	11.417 (0.973)	1055540	99.8900	99.8900	
149 7,12-Dimethylbenz(a)anthrac	256	12.927	12.905 (0.960)	1113836	91.2121	91.2120	
152 3-Methylcholanthrene	268	13.894	13.883 (1.032)	1507726	110.348	110.348	
153 Dibenz(a,j)acridine	279	14.867	14.856 (1.105)	2105031	96.7316	96.7316	

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/L)
-----	----	--	-----	-----	-----	-----	-----
M 1 Total Isosafrole	162				459314	105.186	105.186
M 2 Total Diallate	86				658935	94.5364	94.5364
M 3 Total Aramite	185				283811	93.2458	93.2458
165 Chlorobenzilate	251	10.913	10.902	(0.929)	599221	95.3333	95.3333
199 1,4-Dioxane	88	2.989	2.989	(0.557)	380140	93.8563	93.8563
175 Biphenyl	154	7.703	7.702	(0.934)	1926464	100.207	100.207

QC Flag Legend

- Q - Qualifier signal failed the ratio test.
- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2092.d  
 Lab Smp Id: AP9 0100 SSV  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kiddd  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Calibration Date: 29-MAY-2004  
 Calibration Time: 08:27  
 Client Smp ID: AP9\_0100 SSV  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	261424	130712	522848	290102	10.97
49 Naphthalene-d8	969422	484711	1938844	1068802	10.25
83 Acenaphthene-d10	518452	259226	1036904	573599	10.64
117 Phenanthrene-d10	924726	462363	1849452	1026831	11.04
142 Chrysene-d12	979068	489534	1958136	1187941	21.33
151 Perylene-d12	962677	481338	1925354	1079923	12.18

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.37	4.87	5.87	5.36	-0.08
49 Naphthalene-d8	6.58	6.08	7.08	6.58	0.02
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	-0.05
117 Phenanthrene-d10	9.49	8.99	9.99	9.49	-0.05
142 Chrysene-d12	11.74	11.24	12.24	11.75	0.05
151 Perylene-d12	13.45	12.95	13.95	13.46	0.05

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.

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RECOVERY REPORT

Client Name:  
 Sample Matrix: LIQUID  
 Lab Smp Id: AP9\_0100 SSV  
 Level: LOW  
 Data Type: MS DATA  
 SpikeList File: AP9SSV.spk  
 Sublist File: 2-AP9std.sub  
 Method File: /chem/P.i/052904.b/8270C.m  
 Misc Info:

Client SDG: 052904  
 Fraction: SV  
 Client Smp ID: AP9\_0100 SSV  
 Operator: kiddd  
 SampleType: SSV  
 Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7 2-Picoline	100.000	90.2660	90.27	45-155
8 N-Nitrosomethyleth	100.000	105.102	105.10	45-155
9 Methyl methanesulf	100.000	161.796	161.80*	45-155
11 N-Nitrosodiethylam	100.000	104.222	104.22	45-155
13 Ethyl methanesulfo	100.000	98.0482	98.05	45-155
19 Pentachloroethane	100.000	94.5028	94.50	45-155
31 N-Nitrosopyrrolidi	100.000	103.367	103.37	45-155
34 N-Nitrosomorpholin	100.000	97.7592	97.76	45-155
35 o-Toluidine	100.000	97.4521	97.45	45-155
39 N-Nitrosopiperidin	100.000	100.057	100.06	45-155
44 O,O,O-Triethyl pho	100.000	98.1903	98.19	45-155
48 a,a-Dimethylphenet	100.000	83.3460	83.35	45-155
53 2,6-Dichlorophenol	100.000	100.053	100.05	45-155
54 Hexachloropropene	100.000	121.084	121.08	45-155
57 N-Nitrosodi-n-buty	100.000	96.8067	96.81	45-155
58 p-Phenylenediamine	100.000	46.0487	46.05	45-155
61 Safrole	100.000	96.0732	96.07	45-155
65 1,2,4,5-Tetrachlor	100.000	93.9821	93.98	45-155
66 Isosafrole (#1)	17.5000	25.2906	144.52	45-155
72 Isosafrole (#2)	82.5000	80.7342	97.86	45-155
73 1-Chloronaphthalen	100.000	84.9594	84.96	45-155
75 1,4-Naphthoquinone	100.000	159.881	159.88*	45-155
78 1,4-Dinitrobenzene	100.000	115.929	115.93	45-155
80 1,3-Dinitrobenzene	100.000	109.063	109.06	45-155
89 Pentachlorobenzene	100.000	93.0452	93.05	45-155
90 1-Naphthylamine	100.000	92.1653	92.17	45-155
91 2,3,4,6-Tetrachlor	100.000	102.226	102.23	45-155
92 2-Naphthylamine	100.000	96.7402	96.74	45-155
98 Thionazin	100.000	103.053	103.05	45-155
100 5-Nitro-o-toluidin	100.000	112.323	112.32	45-155
182 Diphenylamine	100.000	96.4251	96.43	45-155
104 Sulfotepp	100.000	97.5956	97.60	45-155
105 1,3,5-Trinitrobenz	100.000	116.676	116.68	45-155

*narrate*

*narrate*

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
106 Diallate (#1)	72.0000	68.6749	95.38	45-155
107 Phorate	100.000	96.8886	96.89	45-155
109 Phenacetin	100.000	101.631	101.63	45-155
111 Diallate (#2)	28.0000	25.4325	90.83	45-155
112 Dimethoate	100.000	106.074	106.07	45-155
114 4-Aminobiphenyl	100.000	95.6421	95.64	45-155
115 Pentachloronitrobenzene	100.000	99.9253	99.93	45-155
116 Pronamide	100.000	101.871	101.87	45-155
120 2-secbutyl-4,6-dimethyl-4-pyridylmethanone	100.000	123.196	123.20	45-155
121 Disulfoton	100.000	88.7216	88.72	45-155
124 Methyl parathion	100.000	105.528	105.53	45-155
126 Parathion	100.000	95.8249	95.82	45-155
127 4-Nitroquinoline-1-oxide	100.000	130.848	130.85	45-155
128 Methapyrilene	100.000	132.252	132.25	45-155
129 Isodrin	100.000	103.580	103.58	45-155
134 Aramite (#1)	17.5000	47.5671	271.81*	45-155
135 Aramite (#2)	82.5000	46.7027	56.61	45-155
136 p-Dimethylaminoazobenzene	100.000	105.833	105.83	45-155
138 3,3'-Dimethylbenzidine	100.000	97.7404	97.74	45-155
139 2-Acetylaminofluorene	100.000	99.8900	99.89	45-155
152 3-Methylcholanthrene	100.000	110.348	110.35	45-155
149 7,12-Dimethylbenzimidazole	100.000	91.2120	91.21	45-155
153 Dibenz(a,j)acridin	100.000	96.7316	96.73	45-155
M 1 Total Isosafrole	100.000	105.186	105.19	45-155
M 2 Total Diallate	100.000	94.5364	94.54	45-155
M 3 Total Aramite	100.000	93.2458	93.25	45-155
165 Chlorobenzilate	100.000	95.3333	95.33	45-155
199 1,4-Dioxane	100.000	93.8563	93.86	45-155
175 Biphenyl	100.000	100.207	100.21	45-155

see tot

✓

STL-Denver

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:  
Lab Smp Id: AP9 0100 SSV  
Operator : kidd  
Sample Location:  
Sample Matrix: WATER  
Analysis Type: SV

Client SDG: 052904  
Client Smp ID: AP9 0100 SSV  
Sample Date: 30-MAR-1998  
Sample Point:  
Date Received: 31-MAR-1998 00:00  
Level: LOW

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====



Data File: /chem/P.i/052904.b/p2092.d

Date: 29-MAY-2004 11:32

Client ID: AP9\_0100 SSV

Sample Info: AP9\_0100 SSV,BNA1417,P:050404,E:071304

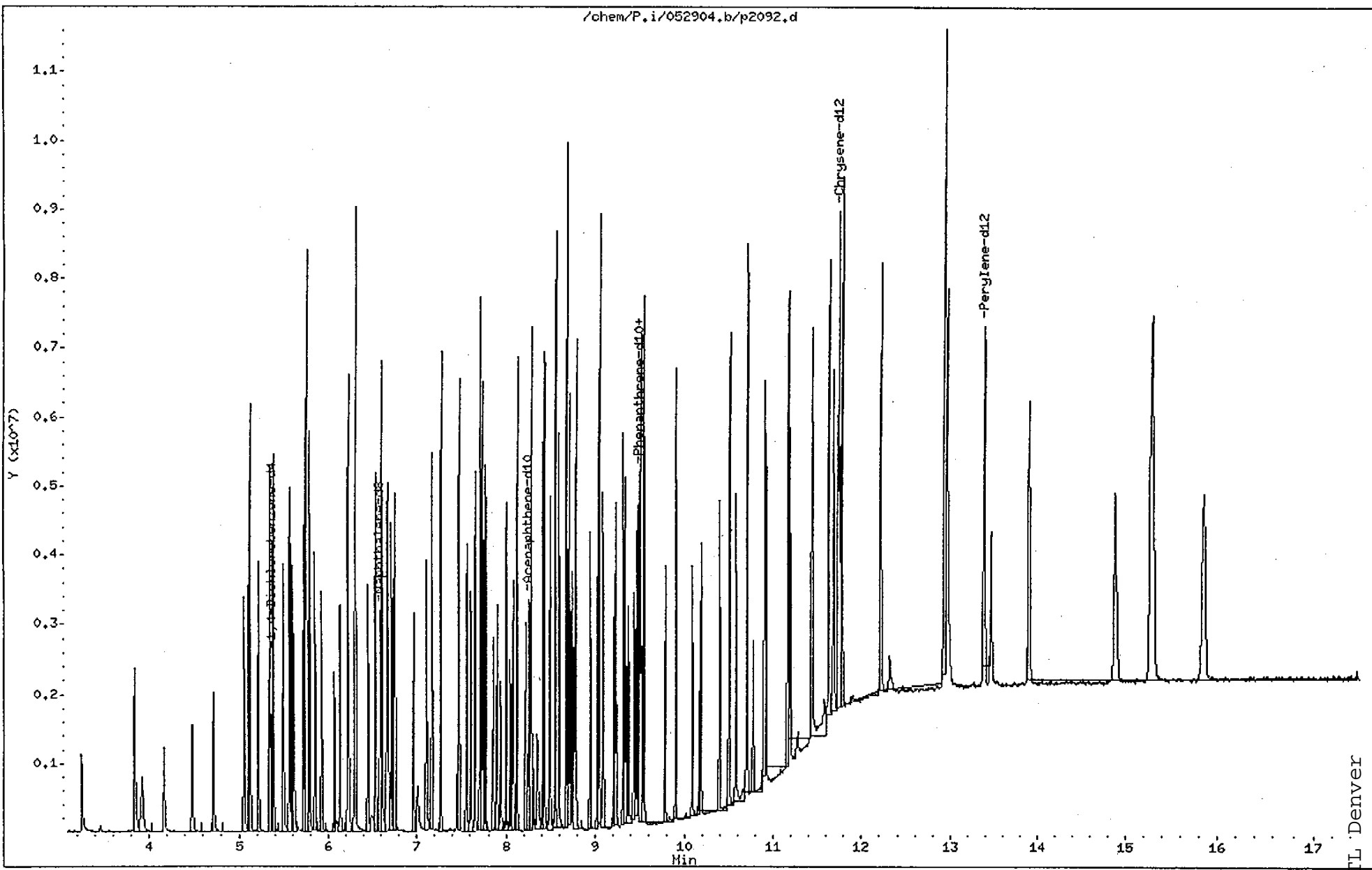
Volume Injected (uL): 0.5

Column phase: Rtx-5ms 30m 0.5um

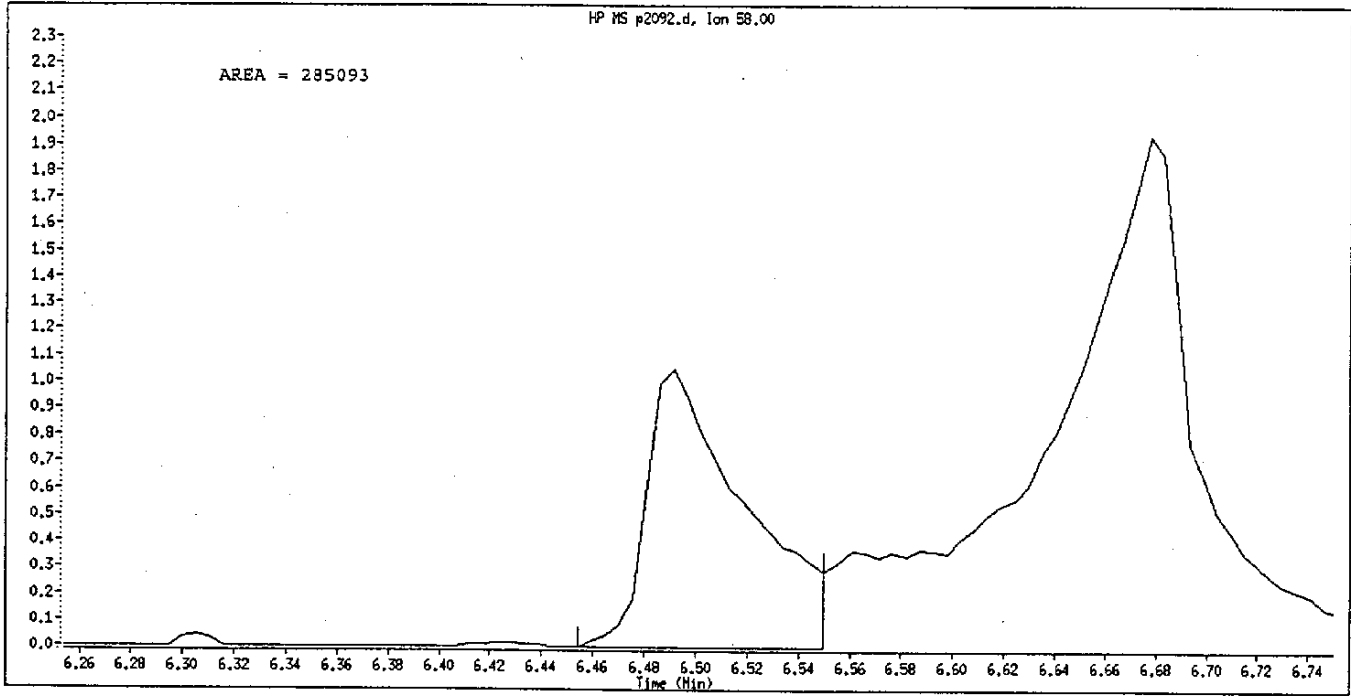
Instrument: P.i

Operator: kidd

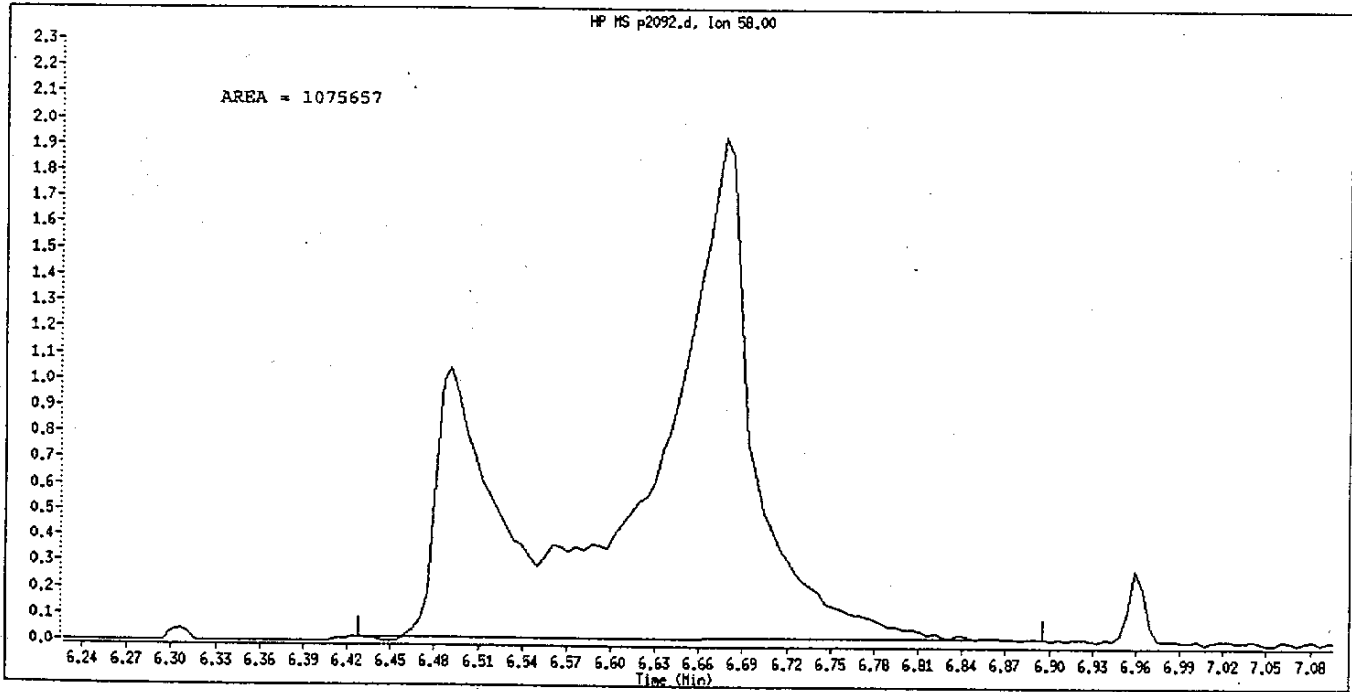
Column diameter: 0.25



Data File Name: p2092.d  
Inj. Date and Time: 29-MAY-2004 11:32  
Instrument ID: P.i  
Client ID: AP9\_0100 SSV  
Compound Name: a,a-Dimethylphenethylamine  
CAS #: 122-09-8  
Report Date: 06/03/2004



Original Integration



Manual Integration

Manually Integrated By: kidd  
Manual Integration Reason: Split Peak

*Handwritten:* 06-03-04

*Handwritten signature:* [Signature] 6/3/04

GC/MS Continuing Calibration Review Checklist

STL Denver

1438

Instrument ID and Date: P 060304.6

Check Method Used: Analysis  625  8270  Other SV HSL/AFCEE @/AP9

524.2  624  8260B  Other VOA

VOA Preparation  5mL  20mL  5035 Low  5035 High  5030 Low  5030 High

Review Items	Level 1			Level 2	Comments
	Yes	No	N/A		
<b>Continuing Calibration</b>					
1. BFB/DFTPP meets criteria?	✓			✓	
2. ICAL date and instrument ID verified?	✓				
3. Do SPCC RRFs and CCC %Ds meet method criteria?	✓				
4. Does %D meet criteria for non-CCC compounds?	✓				
5. Isomeric pairs checked for correct peak assignment?	✓				
6. Standards traceability properly documented?	✓				
7. Manual integrations documented and checked?	✓				
8. Do the Internal Standards meet criteria for %D against ICAL?	✓				

1st Level Reviewer: MRK

Date: 06-03-04

2nd Level Reviewer: JMP

Date: 6/3/04

STL Denver

Date : 03-JUN-2004 05:35

Client ID: DFTPP

Instrument: P.i

Sample Info: DFTPP,BNA1512,P:041903,E:041905

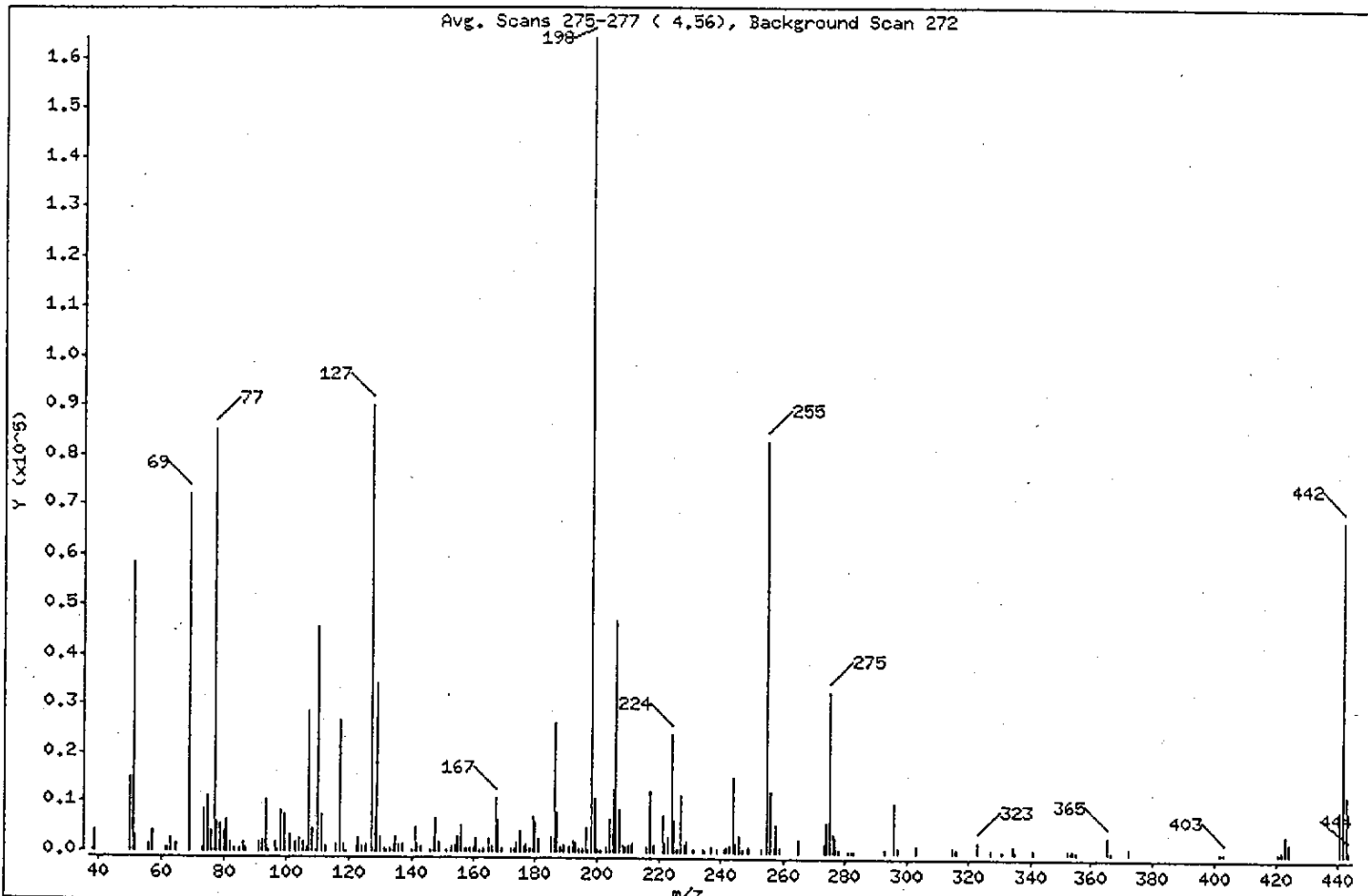
Operator: kidd

*MLK*  
*06-03-04*

Column phase: Rtx-5ms

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	35.72
68	Less than 2.00% of mass 69	0.00 ( 0.00)
69	Mass 69 relative abundance	43.79
70	Less than 2.00% of mass 69	0.00 ( 0.00)
127	40.00 - 60.00% of mass 198	54.93
197	Less than 1.00% of mass 198	0.21
199	5.00 - 9.00% of mass 198	6.65
275	10.00 - 30.00% of mass 198	20.09
365	Greater than 1.00% of mass 198	2.14
441	Present, but less than mass 443	5.60
442	40.00 - 100.00% of mass 198	41.02
443	17.00 - 23.00% of mass 442	7.42 ( 18.09)

Date : 03-JUN-2004 05:35

Client ID: DFTPP

Instrument: P.i

Sample Info: DFTPP,BNA1512,P:041903,E:041905

Operator: kiddd

Column phase: Rtx-5ms

Column diameter: 0.25

Data File: p2112.d  
 Spectrum: Avg. Scans 275-277 ( 4.56), Background Scan 272  
 Location of Maximum: 198.00  
 Number of points: 194

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	333	122.00	1287	181.00	2496	247.00	716
39.00	4292	123.00	2751	185.00	2940	249.00	1160
50.00	15262	124.00	964	186.00	26320	253.00	921
51.00	58608	125.00	1350	187.00	7939	255.00	82960
52.00	2882	127.00	90120	188.00	1120	256.00	12341
56.00	1597	128.00	6804	189.00	1447	257.00	1240
57.00	4002	129.00	34304	191.00	1313	258.00	5784
61.00	898	130.00	3186	192.00	2130	259.00	1010
62.00	717	131.00	823	193.00	1842	265.00	2707
63.00	2595	132.00	313	194.00	850	273.00	2054
65.00	1586	133.00	612	195.00	787	274.00	5875
69.00	71848	134.00	1494	196.00	4763	275.00	32968
73.00	799	135.00	3179	197.00	338	276.00	3892
74.00	8538	136.00	1661	198.00	164032	277.00	3123
75.00	11457	137.00	1640	199.00	10905	278.00	571
76.00	4282	140.00	301	200.00	906	281.00	312
77.00	85080	141.00	4890	201.00	415	282.00	434
78.00	5901	142.00	1368	203.00	1177	283.00	511
79.00	5664	143.00	1092	204.00	6712	293.00	830
80.00	4181	146.00	513	205.00	12772	296.00	10220
81.00	6534	147.00	2942	206.00	47040	297.00	1209
82.00	1742	148.00	6704	207.00	8608	303.00	1435
83.00	936	149.00	2057	208.00	1430	315.00	1162
85.00	903	151.00	372	209.00	1107	316.00	611
86.00	1784	153.00	1259	210.00	1355	323.00	2250
87.00	861	154.00	1486	211.00	1881	327.00	896
91.00	1774	155.00	3113	216.00	1264	331.00	332
92.00	2110	156.00	5223	217.00	12554	334.00	1563
93.00	10513	157.00	720	218.00	1544	335.00	416
94.00	328	158.00	915	221.00	7706	341.00	759
96.00	2005	159.00	887	222.00	1744	352.00	687
97.00	301	160.00	1175	223.00	3198	353.00	372
98.00	8374	161.00	2536	224.00	24096	354.00	871
99.00	7500	162.00	476	225.00	6488	355.00	369
101.00	3502	163.00	708	226.00	919	365.00	3504

Date : 03-JUN-2004 05:35

Client ID: DFTPP

Instrument: P.i

Sample Info: DFTPP,BNA1512,P:041903,E:041905

Operator: kidd

Column phase: Rtx-5ms

Column diameter: 0.25

Data File: p2112.d  
Spectrum: Avg. Scans 275-277 ( 4.56), Background Scan 272  
Location of Maximum: 198.00  
Number of points: 194

m/z	Y	m/z	Y	m/z	Y	m/z	Y
103.00	1741	165.00	2635	227.00	11740	366.00	366
104.00	2551	166.00	1285	228.00	1574	372.00	1001
105.00	1964	167.00	11058	229.00	2139	402.00	391
106.00	760	168.00	6515	231.00	788	403.00	488
107.00	28816	169.00	834	234.00	666	421.00	386
108.00	4391	172.00	777	235.00	451	422.00	679
109.00	353	173.00	862	237.00	1311	423.00	3764
110.00	45568	174.00	1743	239.00	691	424.00	2083
111.00	7583	175.00	4286	241.00	760	441.00	9194
112.00	995	176.00	1242	242.00	1293	442.00	67296
116.00	1599	177.00	1471	243.00	1341	443.00	12175
117.00	26656	178.00	712	244.00	15641	444.00	1207
118.00	1695	179.00	7001	245.00	1779		
119.00	182	180.00	5918	246.00	3238		

Data File: /chem/P.i/060304.b/p2112.d

Page 1

Date : 03-JUN-2004 05:35

Client ID: DFTPP

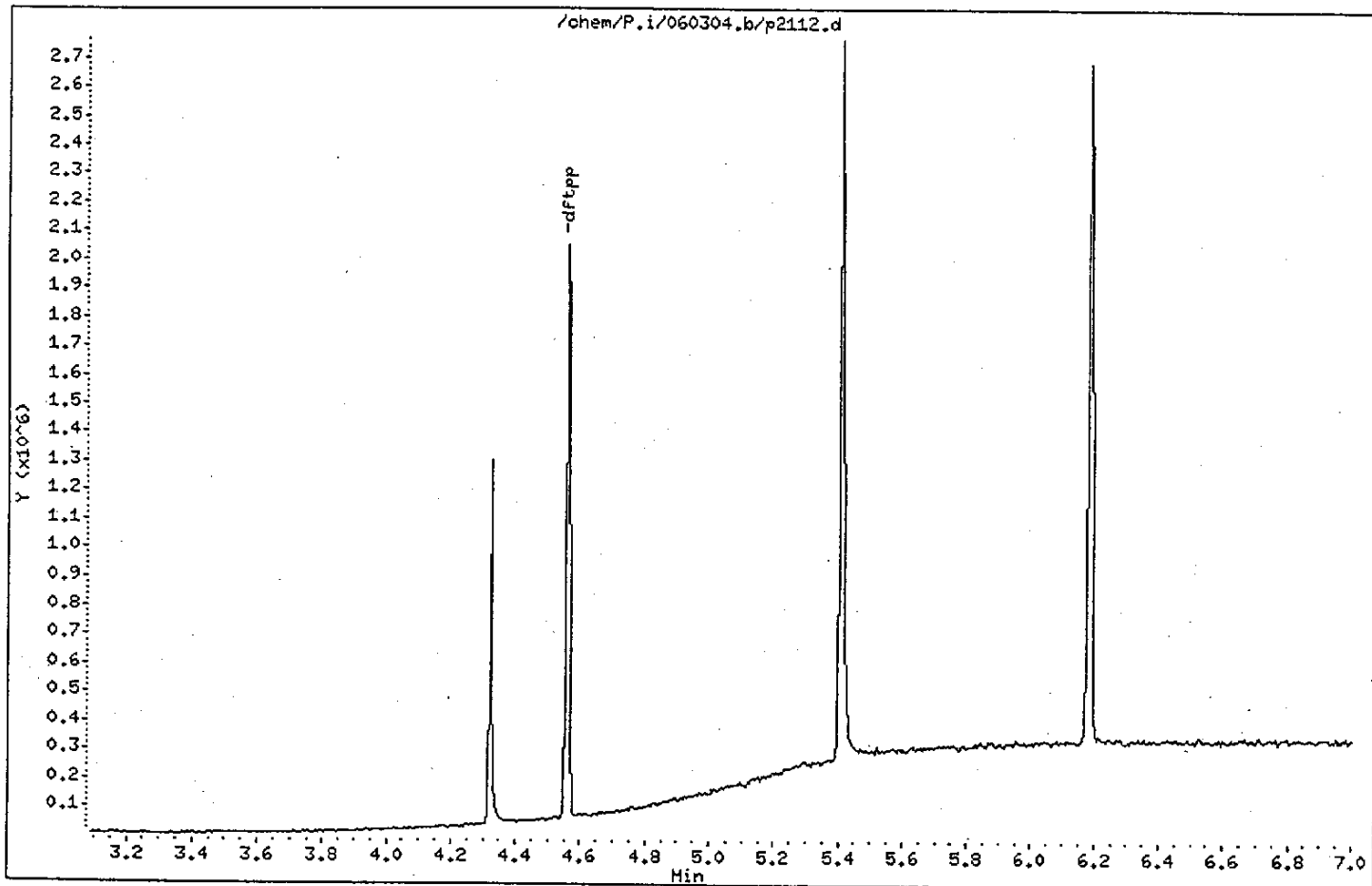
Instrument: P.i

Sample Info: DFTPP,BNA1512,P:041903,E:041905

Operator: kiddd

Column phase: Rtx-5ms

Column diameter: 0.25

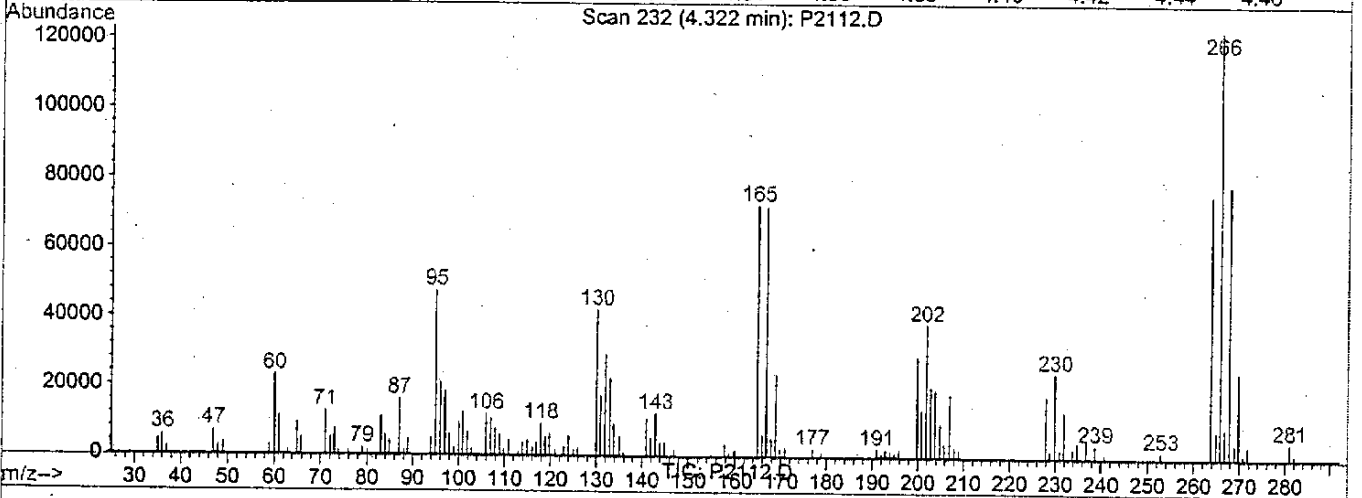
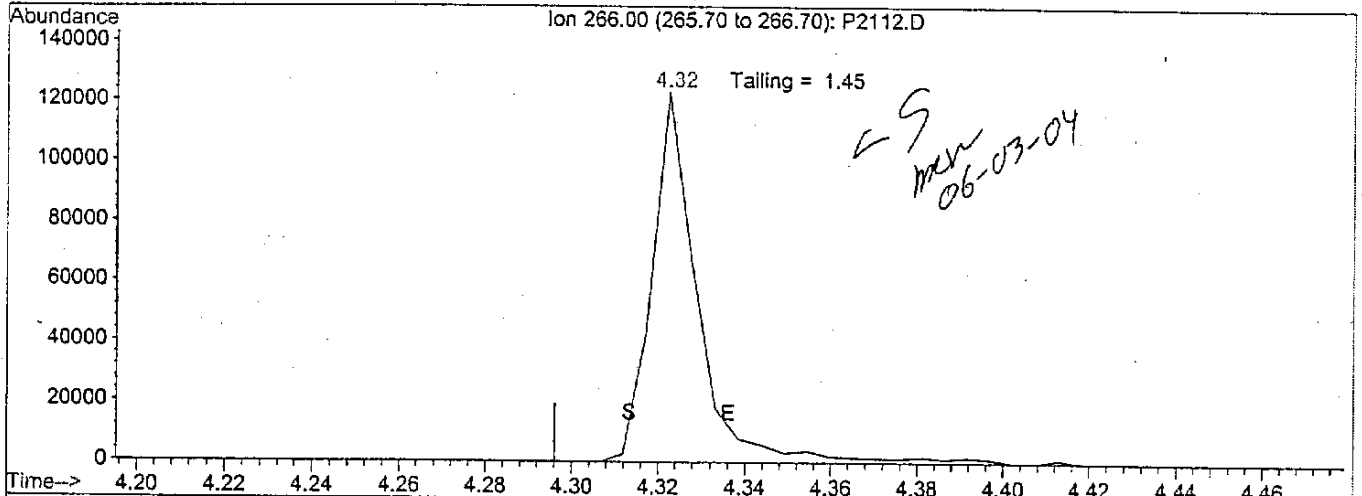


Quantitation Report

Data File : C:\HPCHEM\1\DATA\060304.B\P2112.D  
Acq On : 3 Jun 2004 5:35 am  
Sample : DFTPP,BNA1512,P:041903,E:041905  
Misc :  
Quant Time: Jun 3 14:20 19104

Vial: 2  
Operator: kidd  
Inst : GC/MS Ins  
Multiplr: 1.00  
Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPPB.M (RTE Integrator)  
Title :  
Last Update : Wed May 12 11:21:34 2004  
Response via : Single Level Calibration



(1) Pentachlorophenol  
4.32min 22.16ug/ml  
response 88521  
Ion Exp% Act%  
266.00 100 100  
0.00 0.00 0.00  
0.00 0.00 0.00  
0.00 0.00 0.00

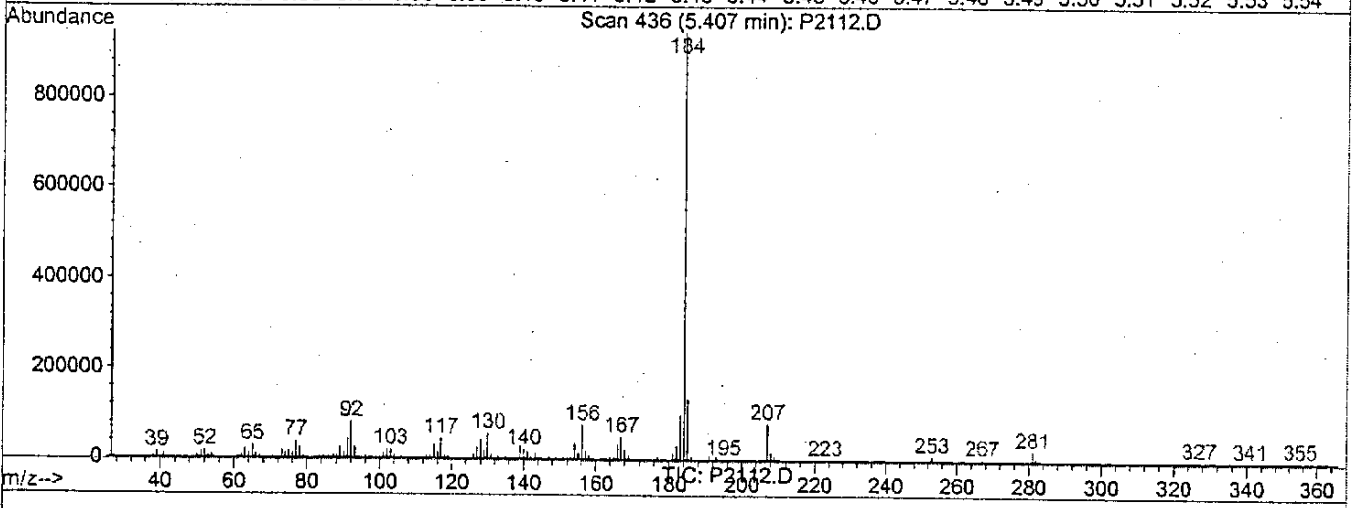
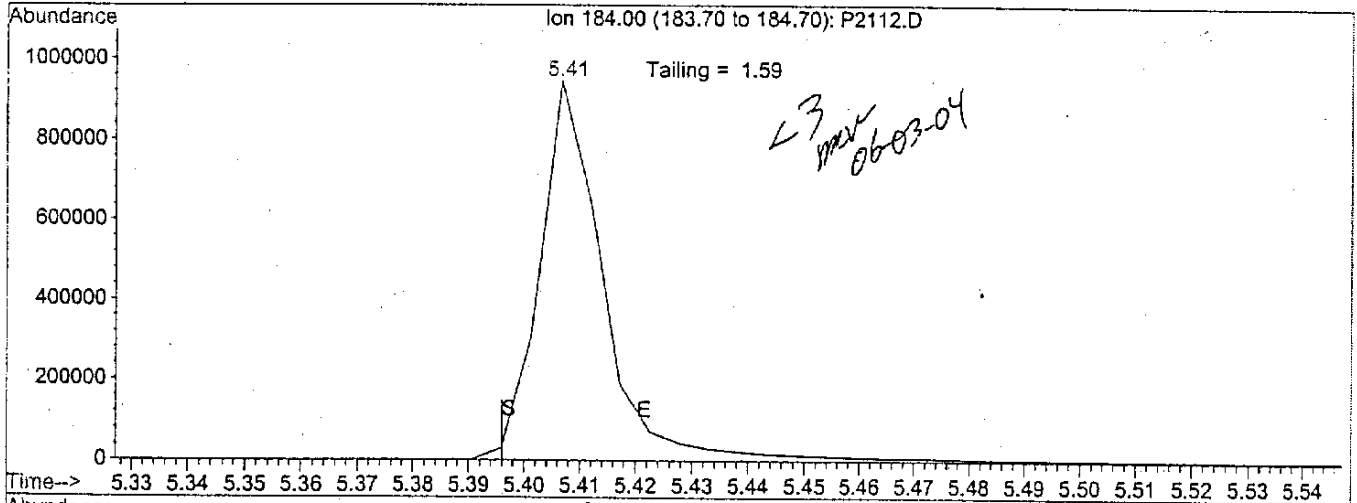


# Quantitation Report

Data File : C:\HPCHEM\1\DATA\060304.B\P2112.D  
 Acq On : 3 Jun 2004 5:35 am  
 Sample : DFTPP,BNA1512,P:041903,E:041905  
 Misc :  
 Quant Time: Jun 3 14:20 19104

Vial: 2  
 Operator: kidd  
 Inst : GC/MS Ins  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPPB.M (RTE Integrator)  
 Title :  
 Last Update : Wed May 12 11:21:34 2004  
 Response via : Single Level Calibration



(3) Benzidine

5.60min 0.00ug/ml

response 0

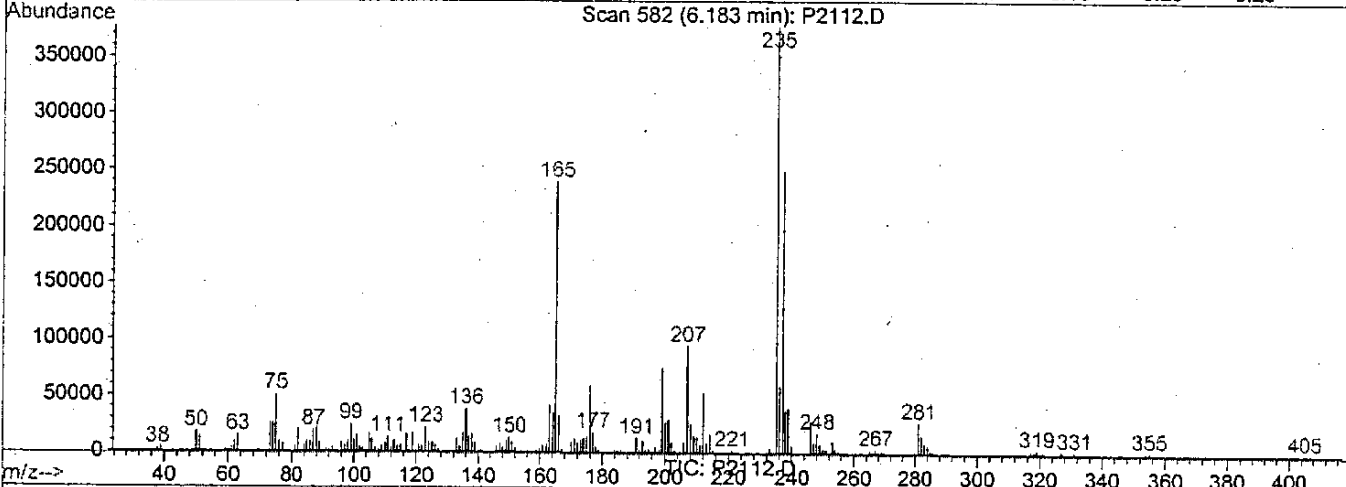
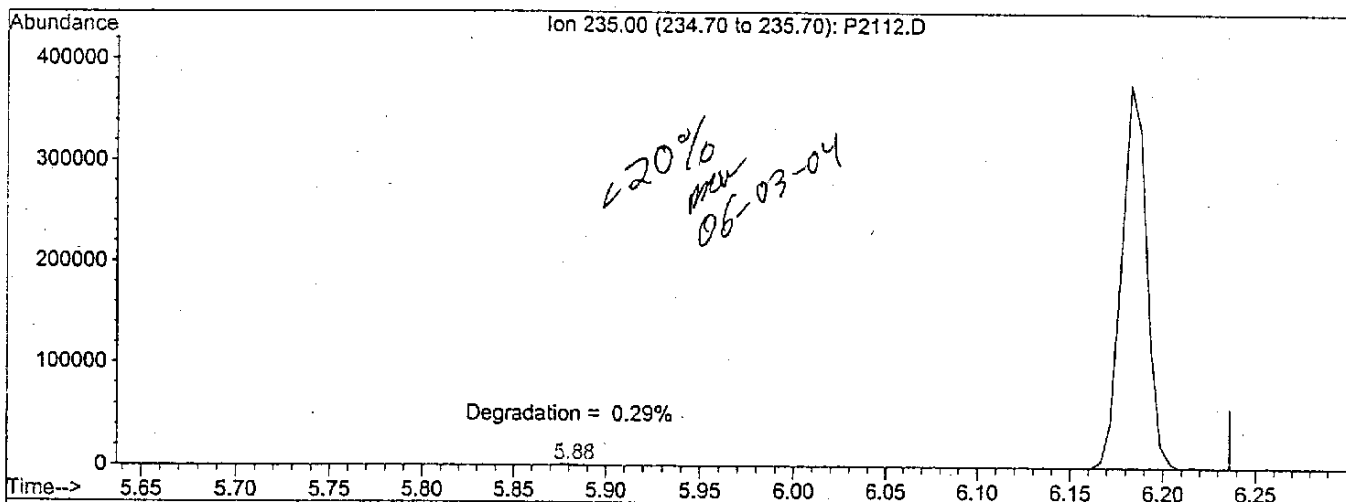
Ion	Exp%	Act%
184.00	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\060304.B\P2112.D  
 Acq On : 3 Jun 2004 5:35 am  
 Sample : DFTPP,BNA1512,P:041903,E:041905  
 Misc :  
 Quant Time: Jun 3 14:20 19104

Vial: 2  
 Operator: kidd  
 Inst : GC/MS Ins  
 Multiplr: 1.00  
 Quant Results File: temp.res

Method : C:\HPCHEM\1\METHODS\DFTPPB.M (RTE Integrator)  
 Title :  
 Last Update : Wed May 12 11:21:34 2004  
 Response via : Single Level Calibration



(4) DDT

6.37min 0.03ug/ml

response 363

Ion	Exp%	Act%
235.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: P.i  
 Lab File ID: p2114.d  
 Analysis Type: WATER

Injection Date: 03-JUN-2004 06:15  
 Lab Sample ID: HSL 0080  
 Method File: /chem/P.i/060304.b/8270C.m

COMPOUND	RRF/CONC	RRF/CONC	CCAL RRF	MIN RRF	MAX %D	MAX %D	CURVE TYPE
3 N-Nitrosodimethylamine	0.696697	0.709034	0.70903	0.01	1.77	50.0	Average
2 Pyridine	1.01205	1.10766	1.1077	0.01	9.45	50.0	Average
89 2-Fluorophenol	1.17259	1.24925	1.2492	0.01	6.54	50.0	Average
59 Phenol-d5	1.40246	1.49738	1.4974	0.01	6.77	50.0	Average
9 Phenol	1.48259	1.56427	1.5643	0.01	5.51	20.0	Average
13 Aniline	80.0000	106.546	1.2847	0.01	33.2	50.0	Quadratic
168 Methyl Styrene	1.34727	1.40662	1.4066	0.01	4.40	50.0	Average
15 Bis(2-chloroethyl) ether	1.50566	1.58208	1.5821	0.01	5.08	50.0	Average
206 Decane	0.906411	0.886791	0.88679	0.01	2.16	50.0	Average
142 2-Chlorophenol-d4	1.20193	1.26709	1.2671	0.01	5.42	50.0	Average
9 2-Chlorophenol	1.25372	1.32967	1.3297	0.01	6.06	50.0	Average
17 1,3-Dichlorobenzene	1.37240	1.43975	1.4398	0.01	4.91	50.0	Average
9 1,4-Dichlorobenzene	1.40644	1.46195	1.4620	0.01	3.95	20.0	Average
20 Benzyl alcohol	0.720145	0.785068	0.78507	0.01	9.02	50.0	Average
143 1,2-Dichlorobenzene-d4	0.850909	0.882041	0.88204	0.01	3.66	50.0	Average
21 1,2-Dichlorobenzene	1.30261	1.35206	1.3520	0.01	3.80	50.0	Average
22 2-Methylphenol	1.10030	1.14557	1.1456	0.01	4.11	50.0	Average
23 2,2'-oxybis(1-chloropropane)	1.07565	1.06300	1.0630	0.01	1.18	50.0	Average
136 1H-Indene	2.11910	2.22766	2.2276	0.01	5.12	50.0	Average
25 4-Methylphenol	1.12891	1.22225	1.2222	0.01	8.27	50.0	Average
9 N-nitrosodi-n-propylamine	0.807086	0.886454	0.88645	0.05	9.83	50.0	Average
26 Acetophenone	1.65024	1.78512	1.7851	0.01	8.17	50.0	Average
30 Hexachloroethane	0.560398	0.614375	0.61437	0.01	9.63	50.0	Average
8 Nitrobenzene-d5	1.22864	1.38446	1.3845	0.01	12.7	50.0	Average
32 Nitrobenzene	1.23511	1.36719	1.3672	0.01	10.7	50.0	Average
34 Isophorone	0.559849	0.610149	0.61015	0.01	8.98	50.0	Average
36 2,4-Dimethylphenol	0.321902	0.346113	0.34611	0.01	7.52	50.0	Average
35 2-Nitrophenol	0.156094	0.175786	0.17578	0.01	12.6	20.0	Average
38 Benzoic acid	0.152705	0.153631	0.15363	0.01	0.606	50.0	Average
39 Bis(2-chloroethoxy)methane	0.349740	0.363416	0.36342	0.01	3.91	50.0	Average
40 2,4-Dichlorophenol	0.257480	0.275356	0.27536	0.01	6.94	20.0	Average
213 n-Dodecane	0.443146	0.427332	0.42733	0.01	3.57	50.0	Average
9 1,2,4-Trichlorobenzene	0.302024	0.312178	0.31218	0.01	3.36	50.0	Average
44 Naphthalene	0.983705	1.01190	1.0119	0.01	2.87	50.0	Average
45 4-Chloroaniline	0.346435	0.374556	0.37456	0.01	8.12	50.0	Average
48 Hexachlorobutadiene	0.174172	0.185827	0.18583	0.01	6.69	20.0	Average
205 Caprolactam	80.0000	80.9537	0.082526	0.01	1.19	50.0	WtLinear
9 4-Chloro-3-methylphenol	0.264417	0.288594	0.28859	0.01	9.14	20.0	Average
53 2-Methylnaphthalene	0.589709	0.617998	0.61800	0.01	4.80	50.0	Average

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: P.i  
 Lab File ID: p2114.d  
 Analysis Type: WATER

Injection Date: 03-JUN-2004 06:15  
 Lab Sample ID: HSL\_0080  
 Method File: /chem/P.i/060304.b/8270C.m

COMPOUND	RRF/CONC	RRF/CONC	CCAL RRF	MIN RRF	%D	MAX %D	CURVE TYPE
138 1-Methylnaphthalene	0.593286	0.616821	0.61682	0.01	3.97	50.0	Average
54 Hexachlorocyclopentadiene	0.351658	0.374994	0.37499	0.05	6.64	50.0	Average
57 2,4,6-Trichlorophenol	0.314335	0.320977	0.32098	0.01	2.11	20.0	Average
207 2,3-Dichlorobenzeneamine	0.556322	0.567110	0.56711	0.01	1.94	50.0	Average
58 2,4,5-Trichlorophenol	0.330876	0.352832	0.35283	0.01	6.64	50.0	Average
210 Tetradecane	0.426363	0.443243	0.44324	0.01	3.96	50.0	Average
11 2-Fluorobiphenyl	1.27299	1.28622	1.2862	0.01	1.04	50.0	Average
61 2-Chloronaphthalene	1.06574	1.06301	1.0630	0.01	0.256	50.0	Average
63 2-Nitroaniline	80.0000	83.9282	0.29090	0.01	4.91	50.0	WtLinear
65 Dimethyl phthalate	1.10709	1.14152	1.1415	0.01	3.11	50.0	Average
67 2,6-Dinitrotoluene	80.0000	82.3461	0.23385	0.01	2.93	50.0	WtLinear
68 Acenaphthylene	1.71157	1.76324	1.7632	0.01	3.02	50.0	Average
69 3-Nitroaniline	80.0000	81.4067	0.25662	0.01	1.76	50.0	WtLinear
9 Acenaphthene	1.08807	1.09286	1.0929	0.01	0.440	20.0	Average
72 2,4-Dinitrophenol	80.0000	89.4904	0.12377	0.05	11.9	50.0	Quadratic
9 4-Nitrophenol	80.0000	86.1688	0.18725	0.05	7.71	50.0	WtLinear
76 Dibenzofuran	1.49166	1.50959	1.5096	0.01	1.20	50.0	Average
9 2,4-Dinitrotoluene	80.0000	83.8241	0.32026	0.01	4.78	50.0	WtLinear
209 Hexadecane	0.583220	0.581392	0.58139	0.01	0.313	50.0	Average
80 Diethyl phthalate	1.13733	1.19635	1.1963	0.01	5.19	50.0	Average
84 4-Chlorophenyl phenyl ether	0.610555	0.605715	0.60572	0.01	0.793	50.0	Average
82 Fluorene	1.15352	1.16671	1.1667	0.01	1.14	50.0	Average
85 4-Nitroaniline	80.0000	85.5001	0.26131	0.01	6.88	50.0	WtLinear
86 4,6-Dinitro-2-methylphenol	80.0000	84.7327	0.19898	0.01	5.92	50.0	WtLinear
87 N-nitrosodiphenylamine	0.793733	0.812242	0.81224	0.01	2.33	20.0	Average
88 Azobenzene	1.12336	1.19286	1.1929	0.01	6.19	50.0	Average
114 2,4,6-Tribromophenol	0.0584202	0.0625324	0.062532	0.01	7.04	50.0	Average
94 4-Bromophenyl phenyl ether	0.165633	0.166782	0.16678	0.01	0.694	50.0	Average
204 Atrazine	0.0109791	0.0145047	0.014505	0.01	32.1	50.0	Average
95 Hexachlorobenzene	0.163774	0.164317	0.16432	0.01	0.332	50.0	Average
208 n-Octadecane	0.189350	0.187393	0.18739	0.01	1.03	50.0	Average
9 Pentachlorophenol	80.0000	80.5436	0.090937	0.01	0.680	20.0	WtLinear
104 Phenanthrene	0.915965	0.917911	0.91791	0.01	0.212	50.0	Average
105 Anthracene	0.891906	0.928388	0.92839	0.01	4.09	50.0	Average
134 Carbazole	0.848990	0.892574	0.89257	0.01	5.13	50.0	Average
202 Alachlor	0.114066	0.128189	0.12819	0.01	12.4	50.0	Average
107 Di-n-butyl phthalate	0.966439	1.09488	1.0949	0.01	13.3	50.0	Average
211 n-Eicosane	0.376017	0.404360	0.40436	0.01	7.54	50.0	Average
111 Fluoranthene	1.03137	1.09722	1.0972	0.01	6.38	20.0	Average

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: P.i  
 Lab File ID: p2114.d  
 Analysis Type: WATER

Injection Date: 03-JUN-2004 06:15  
 Lab Sample ID: HSL 0080  
 Method File: /chem/P.i/060304.b/8270C.m

COMPOUND	RRF/CONC	RRF/CONC	CCAL RRF	MIN RRF	%D	MAX %D	CURVE TYPE
212 n-docosane	0.291220	0.315724	0.31572	0.01	8.41	50.0	Average
112 Benzidine	0.104003	0.136752	0.13675	0.01	31.5	50.0	Average
9 Pyrene	0.993784	0.970403	0.97040	0.01	2.35	50.0	Average
31 Terphenyl-d14	0.579503	0.570960	0.57096	0.01	1.47	50.0	Average
117 Butyl benzyl phthalate	0.402823	0.435077	0.43508	0.01	8.01	50.0	Average
123 Bis(2-ethylhexyl) phthalate	80.0000	83.2586	0.62786	0.01	4.07	50.0	WtLinear
119 3,3'-Dichlorobenzidine	0.314344	0.339700	0.33970	0.01	8.07	50.0	Average
120 Benzo(a)anthracene	0.942502	0.963823	0.96382	0.01	2.26	50.0	Average
122 Chrysene	0.920941	0.934799	0.93480	0.01	1.50	50.0	Average
124 Di-n-octyl phthalate	80.0000	83.9424	1.1607	0.01	4.93	20.0	WtLinear
126 Benzo(b)fluoranthene	1.07219	1.10302	1.1030	0.01	2.88	50.0	Average
127 Benzo(k)fluoranthene	1.13162	1.03098	1.0310	0.01	8.89	50.0	Average
128 Benzo(a)pyrene	0.965311	0.976160	0.97616	0.01	1.12	20.0	Average
132 Dibenz(a,h)anthracene	0.954206	0.995346	0.99534	0.01	4.31	50.0	Average
131 Indeno(1,2,3-cd)pyrene	1.11995	1.18535	1.1853	0.01	5.84	50.0	Average
133 Benzo(g,h,i)perylene	0.970936	1.01180	1.0118	0.01	4.21	50.0	Average

CONTINUING CALIBRATION REPORT

Instrument ID: P.i  
Lab File ID: p2114.d  
Analysis Type: WATER

Injection Date: 03-JUN-2004 06:15  
Lab Sample ID: HSL 0080  
Method File: /chem/P.i/060304.b/8270C.m

COMPOUND	%D
N-Nitrosodimethylamine	1.8
Pyridine	9.4
2-Fluorophenol	6.5
Phenol-d5	6.8
Phenol	5.5
Aniline	33.2
Methyl Styrene	4.4
Bis(2-chloroethyl) ether	5.1
Decane	2.2
2-Chlorophenol-d4	5.4
2-Chlorophenol	6.1
1,3-Dichlorobenzene	4.9
1,4-Dichlorobenzene	3.9
Benzyl alcohol	9.0
1,2-Dichlorobenzene-d4	3.7
1,2-Dichlorobenzene	3.8
2-Methylphenol	4.1
2,2'-oxybis(1-chloropropane)	1.2
1H-Indene	5.1
4-Methylphenol	8.3
N-nitrosodi-n-propylamine	9.8
Acetophenone	8.2
Hexachloroethane	9.6
Nitrobenzene-d5	12.7
Nitrobenzene	10.7
Isophorone	9.0
2,4-Dimethylphenol	7.5
2-Nitrophenol	12.6
Benzoic acid	0.6
Bis(2-chloroethoxy)methane	3.9
2,4-Dichlorophenol	6.9
n-Dodecane	3.6
1,2,4-Trichlorobenzene	3.4
Naphthalene	2.9
4-Chloroaniline	8.1
Hexachlorobutadiene	6.7
Caprolactam	1.2
4-Chloro-3-methylphenol	9.1
2-Methylnaphthalene	4.8

*NON-APPEE*

CONTINUING CALIBRATION REPORT

Instrument ID: P.i  
Lab File ID: p2114.d  
Analysis Type: WATER

Injection Date: 03-JUN-2004 06:15  
Lab Sample ID: HSL 0080  
Method File: /chem/P.i/060304.b/8270C.m

COMPOUND	RD
1-Methylnaphthalene	4.0
Hexachlorocyclopentadiene	6.6
2,4,6-Trichlorophenol	2.1
2,3-Dichlorobenzeneamine	1.9
2,4,5-Trichlorophenol	6.6
Tetradecane	4.0
2-Fluorobiphenyl	1.0
2-Chloronaphthalene	0.3
2-Nitroaniline	4.9
Dimethyl phthalate	3.1
2,6-Dinitrotoluene	2.9
Acenaphthylene	3.0
3-Nitroaniline	1.8
Acenaphthene	0.4
2,4-Dinitrophenol	11.9
4-Nitrophenol	7.7
Dibenzofuran	1.2
2,4-Dinitrotoluene	4.8
Hexadecane	0.3
Diethyl phthalate	5.2
4-Chlorophenyl phenyl ether	0.8
Fluorene	1.1
4-Nitroaniline	6.9
4,6-Dinitro-2-methylphenol	5.9
N-nitrosodiphenylamine	2.3
Azobenzene	6.2
2,4,6-Tribromophenol	7.0
4-Bromophenyl phenyl ether	0.7
Atrazine	32.1
Hexachlorobenzene	0.3
n-Octadecane	1.0
Pentachlorophenol	0.7
Phenanthrene	0.2
Anthracene	4.1
Carbazole	5.1
Alachlor	12.4
Di-n-butyl phthalate	13.3
n-Eicosane	7.5
Fluoranthene	6.4

-NTC

CONTINUING CALIBRATION REPORT

Instrument ID: P.i  
Lab File ID: p2114.d  
Analysis Type: WATER

Injection Date: 03-JUN-2004 06:15  
Lab Sample ID: HSL 0080  
Method File: /chem/P.i/060304.b/8270C.m

COMPOUND	%D
n-docosane	8.4
Benzidine	31.5
Pyrene	2.4
Terphenyl-d14	1.5
Butyl benzyl phthalate	8.0
Bis(2-ethylhexyl) phthalate	4.1
3,3'-Dichlorobenzidine	8.1
Benzo(a)anthracene	2.3
Chrysene	1.5
Di-n-octyl phthalate	4.9
Benzo(b)fluoranthene	2.9
Benzo(k)fluoranthene	8.9
Benzo(a)pyrene	1.1
Dibenz(a,h)anthracene	4.3
Indeno(1,2,3-cd)pyrene	5.8
Benzo(g,h,i)perylene	4.2

-NTC

The average of %D's in the continuing calibration is 5.8



*MSW*  
 06-03-04

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/060304.b/p2114.d  
 Lab Smp Id: HSL\_0080 Client Smp ID: HSL\_0080  
 Inj Date : 03-JUN-2004 06:15  
 Operator : kiddd Inst ID: P.i  
 Smp Info : HSL\_0080,BNA1509,P:052804,E:060404  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/060304.b/8270C.m  
 Meth Date : 03-Jun-2004 12:47 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 18:33 Cal File: p2108.d  
 Als bottle: 4 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 1-HSL.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 22 1,4-Dichlorobenzene-d4		152	5.364	5.364	(1.000)	307581	40.0000	
* 49 Naphthalene-d8		136	6.576	6.576	(1.000)	1154692	40.0000	
* 83 Acenaphthene-d10		164	8.250	8.250	(1.000)	647843	40.0000	
* 117 Phenanthrene-d10		188	9.488	9.488	(1.000)	1149558	40.0000	
* 142 Chrysene-d12		240	11.758	11.758	(1.000)	1355247	40.0000	
* 151 Perylene-d12		264	13.469	13.469	(1.000)	1299046	40.0000	
\$ 36 Nitrobenzene-d5		82	5.901	5.901	(1.100)	851668	80.0000	90.1461
\$ 70 2-Fluorobiphenyl		172	7.607	7.607	(0.922)	1666532	80.0000	80.8309
\$ 133 Terphenyl-d14		244	10.769	10.769	(0.916)	1547585	80.0000	78.8207
\$ 10 2-Fluorophenol		112	4.280	4.280	(0.798)	1152740	120.000	127.845
\$ 14 Phenol-d5		99	5.030	5.030	(0.938)	1381699	120.000	128.122
\$ 103 2,4,6-Tribromophenol		330	8.930	8.930	(0.941)	215654	120.000	128.447
\$ 163 1,2-Dichlorobenzene-d4		152	5.545	5.545	(1.034)	542598	80.0000	82.9269
\$ 162 2-Chlorophenol-d4		132	5.194	5.194	(0.968)	1169196	120.000	126.505
5 Pyridine		79	3.281	3.281	(0.612)	681391	80.0000	87.5579

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
4 N-Nitrosodimethylamine	74	3.255	3.255	(0.607)	436171	80.0000	81.4166
16 Aniline	93	5.104	5.104	(0.951)	790295	80.0000	106.546
15 Phenol	94	5.046	5.046	(0.941)	962282	80.0000	84.4075
18 Bis(2-chloroethyl) ether	93	5.120	5.120	(0.954)	973239	80.0000	84.0605
20 2-Chlorophenol	128	5.210	5.210	(0.971)	817962	80.0000	84.8461
21 1,3-Dichlorobenzene	146	5.333	5.333	(0.994)	885682	80.0000	83.9264
23 1,4-Dichlorobenzene	146	5.380	5.380	(1.003)	899339	80.0000	83.1576
24 Benzyl alcohol	108	5.487	5.487	(1.023)	482944	80.0000	87.2122
25 1,2-Dichlorobenzene	146	5.556	5.556	(1.036)	831733	80.0000	83.0368
26 2-Methylphenol	108	5.582	5.582	(1.041)	704713	80.0000	83.2917
27 1H-Indene	116	5.625	5.625	(1.049)	1370370	80.0000	84.0980
28 2,2'-oxybis(1-chloropropane)	45	5.609	5.609	(1.046)	653920	80.0000	79.0596
29 4-Methylphenol	108	5.710	5.710	(1.064)	751881	80.0000	86.6147
30 N-nitrosodi-n-propylamine	70	5.742	5.742	(1.070)	545313	80.0000	87.8671
32 Acetophenone	105	5.747	5.747	(1.071)	1098136	80.0000	86.5385
33 Hexachloroethane	117	5.843	5.843	(1.089)	377940	80.0000	87.7056
37 Nitrobenzene	77	5.923	5.923	(1.104)	841041	80.0000	88.5546
40 Isophorone	82	6.124	6.124	(0.931)	1409068	80.0000	87.1876
41 2-Nitrophenol	139	6.225	6.225	(0.947)	405957	80.0000	90.0920
42 2,4-Dimethylphenol	107	6.215	6.215	(0.945)	799308	80.0000	86.0170
43 Bis(2-chloroethoxy)methane	93	6.305	6.305	(0.959)	839266	80.0000	83.1280
45 Benzoic acid	122	6.300	6.300	(0.958)	354793	80.0000	80.4851
46 2,4-Dichlorophenol	162	6.443	6.443	(0.980)	635904	80.0000	85.5541
47 1,2,4-Trichlorobenzene	180	6.528	6.528	(0.993)	720939	80.0000	82.6897
50 Naphthalene	128	6.597	6.597	(1.003)	2336870	80.0000	82.2931
51 4-Chloroaniline	127	6.656	6.656	(1.012)	864993	80.0000	86.4938
52 Hexachlorobutadiene	225	6.746	6.746	(1.026)	429146	80.0000	85.3535
59 4-Chloro-3-methylphenol	107	7.102	7.102	(1.080)	666474	80.0000	87.3149
62 2-Methylnaphthalene	142	7.262	7.262	(1.104)	1427195	80.0000	83.8377
64 1-Methylnaphthalene	142	7.373	7.373	(1.121)	1424476	80.0000	83.1735
63 Hexachlorocyclopentadiene	237	7.469	7.469	(0.905)	485874	80.0000	85.3086
67 2,4,6-Trichlorophenol	196	7.549	7.549	(0.915)	415885	80.0000	81.6904
68 2,4,5-Trichlorophenol	196	7.597	7.597	(0.921)	457159	80.0000	85.3084
71 2-Chloronaphthalene	162	7.729	7.729	(0.937)	1377323	80.0000	79.7949
74 2-Nitroaniline	65	7.846	7.846	(0.951)	376911	80.0000	83.9282
76 Dimethyl phtalate	163	7.995	7.995	(0.969)	1479052	80.0000	82.4878
79 2,6-Dinitrotoluene	165	8.075	8.075	(0.979)	303001	80.0000	82.3461
81 Acenaphthylene	152	8.117	8.117	(0.984)	2284609	80.0000	82.4152
82 3-Nitroaniline	138	8.218	8.218	(0.996)	332501	80.0000	81.4067
84 Acenaphthene	153	8.277	8.277	(1.003)	1416006	80.0000	80.3521
85 2,4-Dinitrophenol	184	8.298	8.298	(1.006)	160364	80.0000	89.4904
86 4-Nitrophenol	109	8.341	8.341	(1.011)	242616	80.0000	86.1688
87 2,4-Dinitrotoluene	165	8.420	8.420	(1.021)	414954	80.0000	83.8241
88 Dibenzofuran	168	8.410	8.410	(1.019)	1955952	80.0000	80.9616
93 Diethyl phtalate	149	8.590	8.590	(1.041)	1550092	80.0000	84.1513
95 4-Chlorophenyl phenyl ether	204	8.675	8.675	(1.052)	784817	80.0000	79.3658
96 Fluorene	166	8.707	8.707	(1.055)	1511695	80.0000	80.9150

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
97 4-Nitroaniline	138	8.750	8.750	(1.061)	338578	80.0000	85.5001
99 4,6-Dinitro-2-methylphenol	198	8.766	8.766	(1.062)	257815	80.0000	84.7327
101 N-nitrosodiphenylamine	169	8.782	8.782	(1.064)	1052411	80.0000	81.8655
102 Azobenzene	77	8.808	8.808	(1.068)	1545579	80.0000	84.9498
108 4-Bromophenyl phenyl ether	248	9.085	9.085	(0.957)	383451	80.0000	80.5548
110 Hexachlorobenzene	284	9.233	9.233	(0.973)	377783	80.0000	80.2653
113 Pentachlorophenol	266	9.372	9.372	(0.988)	209075	80.0000	80.5436
118 Phenanthrene	178	9.504	9.504	(1.002)	2110383	80.0000	80.1700
122 Anthracene	178	9.542	9.542	(1.006)	2134473	80.0000	83.2723
123 Carbazole	167	9.669	9.669	(1.019)	2052132	80.0000	84.1069
125 Di-n-butyl phthalate	149	9.898	9.898	(1.043)	2517266	80.0000	90.6324
130 Fluoranthene	202	10.498	10.498	(1.106)	2522632	80.0000	85.1080
131 Benzidine	184	10.573	10.573	(0.899)	370665	80.0000	105.191
132 Pyrene	202	10.700	10.700	(0.910)	2630272	80.0000	78.1178
137 Butyl benzyl phthalate	149	11.163	11.163	(0.949)	1179273	80.0000	86.4056
140 3,3'-Dichlorobenzidine	252	11.689	11.689	(0.994)	920756	80.0000	86.4532
141 Benzo(a)anthracene	228	11.742	11.742	(0.999)	2612437	80.0000	81.8097
144 Chrysene	228	11.784	11.784	(1.002)	2533768	80.0000	81.2038
143 Bis(2-ethylhexyl) phthalate	149	11.630	11.630	(0.989)	1701814	80.0000	83.2586
146 Di-n-octyl phthalate	149	12.220	12.220	(1.039)	3146100	80.0000	83.9424
147 Benzo(b)fluoranthene	252	12.938	12.938	(0.961)	2865754	80.0000	82.3004
148 Benzo(k)fluoranthene	252	12.964	12.964	(0.962)	2678579	80.0000	72.8849
150 Benzo(a)pyrene	252	13.389	13.389	(0.994)	2536153	80.0000	80.8991
155 Indeno(1,2,3-cd)pyrene	276	15.281	15.281	(1.135)	3079643	80.0000	84.6712
156 Dibenz(a,h)anthracene	278	15.271	15.271	(1.134)	2586000	80.0000	83.4492
157 Benzo(g,h,i)perylene	276	15.844	15.844	(1.176)	2628737	80.0000	83.3665
168 Methyl Styrene	118	5.120	5.120	(0.954)	865299	80.0000	83.5242
202 Alachlor	188	9.807	9.807	(1.034)	294722	80.0000	89.9055
204 Atrazine	200	9.207	9.207	(0.970)	33348	80.0000	105.690
205 Caprolactam	55	6.975	6.975	(1.061)	190585	80.0000	80.9537
207 2,3-Dichlorobenzeneamine	161	7.565	7.565	(0.917)	734796	80.0000	81.5513
206 Decane	43	5.157	5.157	(0.961)	545520	80.0000	78.2683
213 n-Dodecane	43	6.475	6.475	(0.785)	553688	80.0000	77.1452
210 Tetradecane	43	7.602	7.602	(0.921)	574304	80.0000	83.1672
209 Hexadecane	57	8.505	8.505	(1.031)	753302	80.0000	79.7493
208 n-Octadecane	85	9.249	9.249	(0.975)	430839	80.0000	79.1732
211 n-Eicosane	43	9.908	9.908	(1.201)	523923	80.0000	86.0301
212 n-docosane	43	10.519	10.519	(1.275)	409079	80.0000	86.7314

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2114.d  
 Lab Smp Id: HSL 0080  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kiddd  
 Method File: /chem/P.i/060304.b/8270C.m  
 Misc Info:

Calibration Date: 03-JUN-2004  
 Calibration Time: 06:15  
 Client Smp ID: HSL\_0080  
 Level: LOW  
 Sample Type: WATER

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	307581	153790	615162	307581	0.00
49 Naphthalene-d8	1154692	577346	2309384	1154692	0.00
83 Acenaphthene-d10	647843	323922	1295686	647843	0.00
117 Phenanthrene-d10	1149558	574779	2299116	1149558	0.00
142 Chrysene-d12	1355247	677624	2710494	1355247	0.00
151 Perylene-d12	1299046	649523	2598092	1299046	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	0.00
49 Naphthalene-d8	6.58	6.08	7.08	6.58	0.00
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	0.00
117 Phenanthrene-d10	9.49	8.99	9.99	9.49	0.00
142 Chrysene-d12	11.76	11.26	12.26	11.76	0.00
151 Perylene-d12	13.47	12.97	13.97	13.47	0.00

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.

Internal Standard  
Check Report

Instrument ID: P.i  
Lab File ID: p2114.d  
Analysis Type: WATER

Injection Date: 03-JUN-2004 06:15  
Lab Sample ID: HSL 0080  
Method File: /chem/P.i/060304.b/8270C.m

INTERNAL STANDARD	ICAL AREA	SAMP AREA	ICAL RT	SAMP RT	%R
1,4-Dichlorobenzene-d4	140571	307581	5.365	5.364	90.3
Naphthalene-d8	1226615	1154692	6.582	6.576	94.1
Acenaphthene-d10	656132	647843	8.251	8.250	98.7
Phenanthrene-d10	1163805	1149558	9.489	9.488	98.8
Chrysene-d12	1266300	1355247	11.737	11.758	107.0
Perylene-d12	1208372	1299046	13.443	13.469	107.5

Data File: /chem/P.i/060304.b/p2114.d

Date : 03-JUN-2004 06:15

Client ID: HSL\_0080

Sample Info: HSL\_0080,BNA1509,P:052804,E:060404

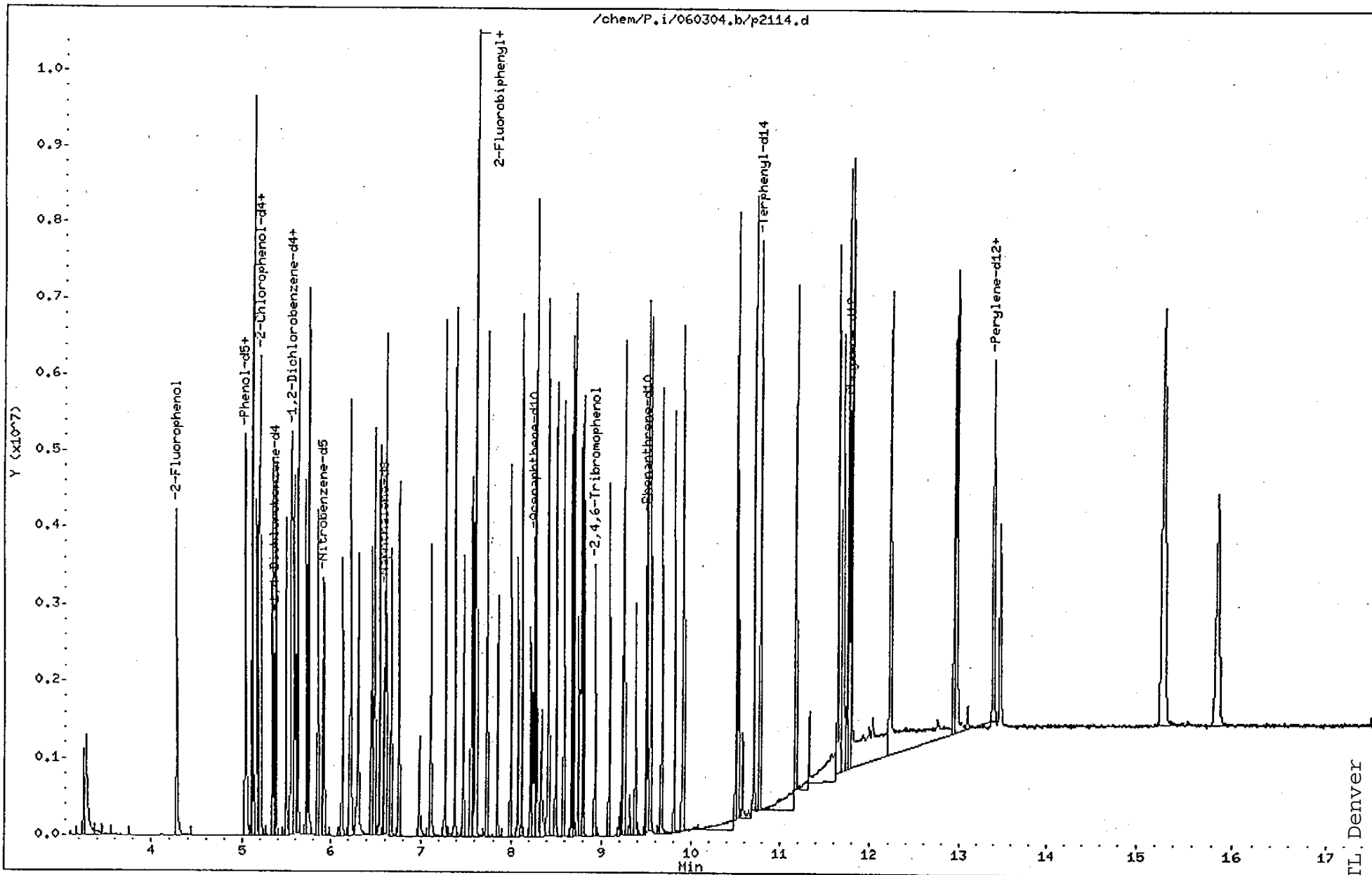
Volume Injected (uL): 0.5

Column phase: Rtx-5ms 30m 0.5um

Instrument: P.i

Operator: kiddd

Column diameter: 0.25



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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: P.i                      Injection Date: 03-JUN-2004 06:41  
 Lab File ID: p2115.d                  Init. Cal. Date(s): 29-MAY-2004 29-MAY-2004  
 Analysis Type: WATER                  Init. Cal. Times: 08:27 18:33  
 Lab Sample ID: AP9 0080                Quant Type: ISTD  
 Method: /chem/P.i/060304.b/8270C.m

COMPOUND	RRF / AMOUNT	RF80	CCAL		MIN		MAX		CURVE TYPE
			RF80	RRF	%D	%DRIFT	%D	%DRIFT	
7 2-Picoline	1.24253	1.30525	1.30525	0.010	5.0	50.0	Averaged		
8 N-Nitrosomethylethylamine	0.51970	0.55393	0.55393	0.010	6.6	50.0	Averaged		
9 Methyl methanesulfonate	0.37279	0.41314	0.41314	0.010	10.8	50.0	Averaged		
11 N-Nitrosodiethylamine	0.53296	0.57015	0.57015	0.010	7.0	50.0	Averaged		
13 Ethyl methanesulfonate	0.86240	0.93306	0.93306	0.010	8.2	50.0	Averaged		
19 Pentachloroethane	0.45131	0.49397	0.49397	0.010	9.5	50.0	Averaged		
31 N-Nitrosopyrrolidine	0.55218	0.63194	0.63194	0.010	14.4	50.0	Averaged		
34 N-Nitrosomorpholine	0.25519	0.27528	0.27528	0.010	7.9	50.0	Averaged		
35 o-Toluidine	1.82915	2.00187	2.00187	0.010	9.4	50.0	Averaged		
39 N-Nitrosopiperidine	0.14280	0.16255	0.16255	0.010	13.8	50.0	Averaged		
44 O,O,O-Triethyl phosphorothi	0.15742	0.17802	0.17802	0.010	13.1	50.0	Averaged		
48 a,a-Dimethylphenethylamine	0.48301	0.50332	0.50332	0.010	4.2	50.0	Averaged		
53 2,6-Dichlorophenol	0.23143	0.26808	0.26808	0.010	15.8	50.0	Averaged		
54 Hexachloropropene	0.18194	0.21376	0.21376	0.010	17.5	50.0	Averaged		
57 N-Nitrosodi-n-butylamine	0.18900	0.21781	0.21781	0.010	15.2	50.0	Averaged		
58 p-Phenylenediamine	0.21532	0.24779	0.24779	0.010	15.1	50.0	Averaged		
61 Safrole	0.23207	0.25954	0.25954	0.010	11.8	50.0	Averaged		
65 1,2,4,5-Tetrachlorobenzene	0.27840	0.31271	0.31271	0.010	12.3	50.0	Averaged		
66 Isosafrole (#1)	0.27323	0.31183	0.31183	0.010	14.1	50.0	Averaged		
72 Isosafrole (#2)	0.31115	0.36914	0.36914	0.010	18.6	50.0	Averaged		
73 1-Chloronaphthalene	0.98865	1.07334	1.07334	0.010	8.6	50.0	Averaged		
75 1,4-Naphthoquinone	89.57177	80.00000	0.21682	0.010	12.0	50.0	Wt Linear		
78 1,4-Dinitrobenzene	106	80.00000	0.15903	0.010	32.0	50.0	Quadratic		
80 1,3-Dinitrobenzene	95.03563	80.00000	0.18543	0.010	18.8	50.0	Wt Linear		
89 Pentachlorobenzene	0.39290	0.44008	0.44008	0.010	12.0	50.0	Averaged		
90 1-Naphthylamine	0.93165	1.03658	1.03658	0.010	11.3	50.0	Averaged		
91 2,3,4,6-Tetrachlorophenol	0.23854	0.27532	0.27532	0.010	15.4	50.0	Averaged		
92 2-Naphthylamine	0.95115	1.04192	1.04192	0.010	9.5	50.0	Averaged		
98 Thionazin	0.23762	0.27526	0.27526	0.010	15.8	50.0	Averaged		
100 5-Nitro-o-toluidine	91.85115	80.00000	0.30224	0.010	14.8	50.0	Wt Linear		
182 Diphenylamine	0.95380	1.06910	1.06910	0.010	12.1	50.0	Averaged		
104 Sulfotepp	0.10811	0.12650	0.12650	0.010	17.0	50.0	Averaged		
105 1,3,5-Trinitrobenzene	107	80.00000	0.05266	0.010	33.9	50.0	Quadratic		
106 Diallate (#1)	0.31186	0.35145	0.35145	0.010	12.7	50.0	Averaged		
107 Phorate	0.12635	0.13944	0.13944	0.010	10.4	50.0	Averaged		

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: P.i                      Injection Date: 03-JUN-2004 06:41  
 Lab File ID: p2115.d                  Init. Cal. Date(s): 29-MAY-2004 29-MAY-2004  
 Analysis Type: WATER                  Init. Cal. Times: 08:27 18:33  
 Lab Sample ID: AP9 0080              Quant Type: ISTD  
 Method: /chem/P.i/060304.b/8270C.m

COMPOUND	RF80		CCAL	MIN	MAX		CURVE TYPE
	RRF / AMOUNT	RF80	RRF80	RRF	%D / %DRIFT	%D / %DRIFT	
109 Phenacetin	90.51687	80.00000	0.30568	0.010	13.1	50.0	Wt Linear
111 Diallate (#2)	0.16719	0.18239	0.18239	0.010	9.1	50.0	Averaged
112 Dimethoate	87.58989	80.00000	0.21120	0.010	9.5	50.0	Wt Linear
114 4-Aminobiphenyl	0.63251	0.71571	0.71571	0.010	13.2	50.0	Averaged
115 Pentachloronitrobenzene	0.07445	0.09040	0.09040	0.010	21.4	50.0	Averaged
116 Pronamide	0.24485	0.29201	0.29201	0.010	19.3	50.0	Averaged
120 2-secbutyl-4,6-dinitropheno	104	80.00000	0.12928	0.010	30.0	50.0	Quadratic
121 Disulfoton	0.29100	0.31141	0.31141	0.010	7.0	50.0	Averaged
124 Methyl parathion	90.54019	80.00000	0.18379	0.010	13.2	50.0	Wt Linear
126 Parathion	92.62195	80.00000	0.12161	0.010	15.8	50.0	Wt Linear
127 4-Nitroquinoline-1-oxide	0.02833	0.03555	0.03555	0.010	25.5	50.0	Averaged
128 Methapyrilene	0.20600	0.22388	0.22388	0.010	8.7	50.0	Averaged
129 Isodrin	0.09998	0.11447	0.11447	0.010	14.5	50.0	Averaged
134 Aramite (#1)	0.08747	0.10379	0.10379	0.010	18.6	50.0	Averaged
135 Aramite (#2)	0.11553	0.13688	0.13688	0.010	18.5	50.0	Averaged
136 p-Dimethylaminoazobenzene	0.24023	0.27877	0.27877	0.010	16.0	50.0	Averaged
138 3,3'-Dimethylbenzidine	90.79401	80.00000	0.58689	0.010	13.5	50.0	Wt Linear
139 2-Acetylaminofluorene	94.52454	80.00000	0.41734	0.010	18.2	50.0	Wt Linear
149 7,12-Dimethylbenz(a)anthrac	0.45231	0.50575	0.50575	0.010	11.8	50.0	Averaged
152 3-Methylcholanthrene	0.50609	0.58686	0.58686	0.010	16.0	50.0	Averaged
153 Dibenz(a,j)acridine	0.80604	0.95218	0.95218	0.010	18.1	50.0	Averaged
M 1 Total Isosafrole	0.30451	0.35911	0.35911	0.010	17.9	50.0	Averaged
M 2 Total Diallate	0.27152	0.30545	0.30545	0.010	12.5	50.0	Averaged
M 3 Total Aramite	0.10249	0.12062	0.12062	0.010	17.7	50.0	Averaged
165 Chlorobenzilate	0.21164	0.24800	0.24800	0.010	17.2	50.0	Averaged
199 1,4-Dioxane	0.55846	0.56608	0.56608	0.010	1.4	50.0	Averaged
175 Biphenyl	1.34065	1.48585	1.48585	0.010	10.8	50.0	Averaged



*WEN*  
*06-03-04*

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/060304.b/p2115.d  
 Lab Smp Id: AP9\_0080 Client Smp ID: AP9\_0080  
 Inj Date : 03-JUN-2004 06:41  
 Operator : kiddd Inst ID: P.i  
 Smp Info : AP9\_0080,BNA1406,P:052804,E:060404  
 Misc Info :  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/060304.b/8270C.m  
 Meth Date : 03-Jun-2004 13:06 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 18:33 Cal File: p2108.d  
 Als bottle: 5 Continuing Calibration Sample  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: 2-AP9std.sub  
 Target Version: 3.50

Concentration Formula: Amt \* DF \* Vf/Vs \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Vs	1000.00000	volume of sample extracted (mL)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG			AMOUNTS		
	MASS	RT	EXP RT REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
* 22 1,4-Dichlorobenzene-d4	152	5.365	5.365 (1.000)	247873	40.0000	
* 49 Naphthalene-d8	136	6.577	6.577 (1.000)	924779	40.0000	
* 83 Acenaphthene-d10	164	8.251	8.251 (1.000)	510606	40.0000	
* 117 Phenanthrene-d10	188	9.489	9.489 (1.000)	892074	40.0000	
* 142 Chrysene-d12	240	11.753	11.753 (1.000)	979004	40.0000	
* 151 Perylene-d12	264	13.459	13.459 (1.000)	930219	40.0000	
7 2-Picoline	93	3.840	3.840 (0.716)	647075	80.0000	84.0386
8 N-Nitrosomethylethylamine	88	3.930	3.930 (0.733)	274607	80.0000	85.2683
9 Methyl methanesulfonate	80	4.174	4.174 (0.778)	204813	80.0000	88.6580
11 N-Nitrosodiethylamine	102	4.483	4.483 (0.836)	282650	80.0000	85.5825
13 Ethyl methanesulfonate	79	4.717	4.717 (0.879)	462559	80.0000	86.5538
19 Pentachloroethane	117	5.115	5.115 (0.953)	244882	80.0000	87.5615
31 N-Nitrosopyrrolidine	100	5.748	5.748 (1.071)	313280	80.0000	91.5555
34 N-Nitrosomorpholine	116	5.758	5.758 (1.073)	136470	80.0000	86.2980
35 o-Toluidine	106	5.785	5.785 (1.078)	992422	80.0000	87.5541
39 N-Nitrosopiperidine	114	6.061	6.061 (0.922)	300642	80.0000	91.0664

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
44 O,O,O-Triethyl phosphorothio	198	6.300	6.300	(0.958)	329251	80.0000	90.4673
48 a,a-Dimethylphenethylamine	58	6.422	6.422	(0.977)	930925	80.0000	83.3652 (M)
53 2,6-Dichlorophenol	162	6.667	6.667	(1.014)	495821	80.0000	92.6665
54 Hexachloropropene	213	6.704	6.704	(1.019)	395365	80.0000	93.9928
57 N-Nitrosodi-n-butylamine	84	6.954	6.954	(1.057)	402851	80.0000	92.1930
58 p-Phenylenediamine	108	6.996	6.996	(1.064)	458295	80.0000	92.0645
61 Safrole	162	7.156	7.156	(1.088)	480026	80.0000	89.4673
65 1,2,4,5-Tetrachlorobenzene	216	7.459	7.459	(1.134)	578373	80.0000	89.8600
66 Isosafrole (#1)	162	7.438	7.438	(0.901)	55727	14.0000	15.9780
72 Isosafrole (#2)	104	7.645	7.645	(0.927)	311002	66.0000	78.3016
73 1-Chloronaphthalene	162	7.767	7.767	(0.941)	1096110	80.0000	86.8530
75 1,4-Napththoquinone	158	7.895	7.895	(0.957)	221416	80.0000	89.5718
78 1,4-Dinitrobenzene	168	7.932	7.932	(0.961)	162400	80.0000	105.608
80 1,3-Dinitrobenzene	168	8.038	8.038	(0.974)	189366	80.0000	95.0356
89 Pentachlorobenzene	250	8.431	8.431	(1.022)	449414	80.0000	89.6074
90 1-Naphthylamine	143	8.484	8.484	(1.028)	1058567	80.0000	89.0101
91 2,3,4,6-Tetrachlorophenol	232	8.548	8.548	(1.036)	281161	80.0000	92.3366
92 2-Naphthylamine	143	8.548	8.548	(1.036)	1064022	80.0000	87.6344
98 Thionazin	97	8.670	8.670	(1.051)	281101	80.0000	92.6734
100 5-Nitro-o-toluidine	152	8.734	8.734	(1.059)	308654	80.0000	91.8512
182 Diphenylamine	169	8.777	8.777	(1.064)	1091778	80.0000	89.6706
104 Sulfotepp	97	8.941	8.941	(0.942)	225689	80.0000	93.6027
105 1,3,5-Trinitrobenzene	213	9.021	9.021	(0.951)	93961	80.0000	107.124
106 Diallate (#1)	86	9.021	9.021	(0.951)	453038	57.8000	65.1390
107 Phorate	121	9.037	9.037	(0.952)	248782	80.0000	88.2852
109 Phenacetin	108	9.037	9.037	(0.952)	545375	80.0000	90.5169
111 Diallate (#2)	86	9.096	9.096	(0.959)	91927	22.6000	24.6542
112 Dimethoate	87	9.207	9.207	(0.970)	376817	80.0000	87.5899
114 4-Aminobiphenyl	169	9.308	9.308	(0.981)	1276930	80.0000	90.5229
115 Pentachloronitrobenzene	237	9.430	9.430	(0.994)	161285	80.0000	97.1353
116 Pronamide	173	9.340	9.340	(0.984)	520991	80.0000	95.4079
120 2-secbutyl-4,6-dinitropheno	211	9.484	9.484	(0.999)	230652	80.0000	104.006
121 Disulfoton	88	9.457	9.457	(0.997)	555604	80.0000	85.6103
124 Methyl parathion	109	9.781	9.781	(1.031)	327911	80.0000	90.5402
126 Parathion	109	10.084	10.084	(1.063)	216963	80.0000	92.6220
127 4-Nitroquinoline-1-oxide	190	10.158	10.158	(1.071)	63430	80.0000	100.382
128 Methapyrilene	97	10.174	10.174	(1.072)	399438	80.0000	86.9458
129 Isodrin	193	10.387	10.387	(1.095)	204232	80.0000	91.5944
134 Aramite (#1)	185	10.706	10.706	(0.911)	91447	36.0000	42.7136
135 Aramite (#2)	185	10.770	10.770	(0.916)	144725	43.2000	51.1836
136 p-Dimethylaminoazobenzene	120	10.892	10.892	(0.927)	545833	80.0000	92.8357
138 3,3'-Dimethylbenzidine	212	11.184	11.184	(0.952)	1149135	80.0000	90.7940
139 2-Acetylaminofluorene	181	11.434	11.434	(0.973)	817151	80.0000	94.5245
149 7,12-Dimethylbenz(a)anthrac	256	12.922	12.922	(0.960)	940922	80.0000	89.4524
152 3-Methylcholanthrene	268	13.895	13.895	(1.032)	1091811	80.0000	92.7681
153 Dibenz(a,j)acridine	279	14.867	14.867	(1.105)	1771466	80.0000	94.5040
M 1 Total Isosafrole	162				366730	80.0000	94.3445

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/ml)	ON-COL (ug/ml)
-----	----	--	-----	-----	-----	-----	-----
M 2 Total Diallate	86				544965	80.0000	89.9960
M 3 Total Aramite	185				236173	80.0000	94.1543
165 Chlorobenzilate	251	10.913	10.913	(0.929)	485585	80.0000	93.7418
199 1,4-Dioxane	88	2.984	2.984	(0.556)	280631	80.0000	81.0918
175 Biphenyl	154	7.698	7.698	(0.933)	1517370	80.0000	88.6648

QC Flag Legend

M - Compound response manually integrated.

STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2115.d  
 Lab Smp Id: AP9\_0080  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kiddd  
 Method File: /chem/P.i/060304.b/8270C.m  
 Misc Info:

Calibration Date: 03-JUN-2004  
 Calibration Time: 06:15  
 Client Smp ID: AP9\_0080  
 Level: LOW  
 Sample Type: WATER

Test Mode: Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	247873	123936	495746	247873	0.00
49 Naphthalene-d8	924779	462390	1849558	924779	0.00
83 Acenaphthene-d10	510606	255303	1021212	510606	0.00
117 Phenanthrene-d10	892074	446037	1784148	892074	0.00
142 Chrysene-d12	979004	489502	1958008	979004	0.00
151 Perylene-d12	930219	465110	1860438	930219	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	0.00
49 Naphthalene-d8	6.58	6.08	7.08	6.58	0.00
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	0.00
117 Phenanthrene-d10	9.49	8.99	9.99	9.49	0.00
142 Chrysene-d12	11.75	11.25	12.25	11.75	0.00
151 Perylene-d12	13.46	12.96	13.96	13.46	0.00

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.

Internal Standard  
Check Report

Instrument ID: P.i  
Lab File ID: p2115.d  
Analysis Type: WATER

Injection Date: 03-JUN-2004 06:41  
Lab Sample ID: AP9 0080  
Method File: /chem/P.i/060304.b/8270C.m

INTERNAL STANDARD	ICAL AREA	SAMP AREA	ICAL RT	SAMP RT	%R
1,4-Dichlorobenzene-d4	261424	247873	5.369	5.365	94.8
Naphthalene-d8	969422	924779	6.581	6.577	95.4
Acenaphthene-d10	518452	510606	8.255	8.251	98.5
Phenanthrene-d10	924726	892074	9.493	9.489	96.5
Chrysene-d12	979068	979004	11.741	11.753	100.0
Perylene-d12	962677	930219	13.452	13.459	96.6

Data File: /chem/P.1/060304.b/p2115.d

Date : 03-JUN-2004 06:41

Client ID: AP9\_0080

Sample Info: AP9\_0080,BNA1406,P:052804,E:060404

Volume Injected (uL): 0.5

Column phase: Rtx-5ms 30m 0.5um

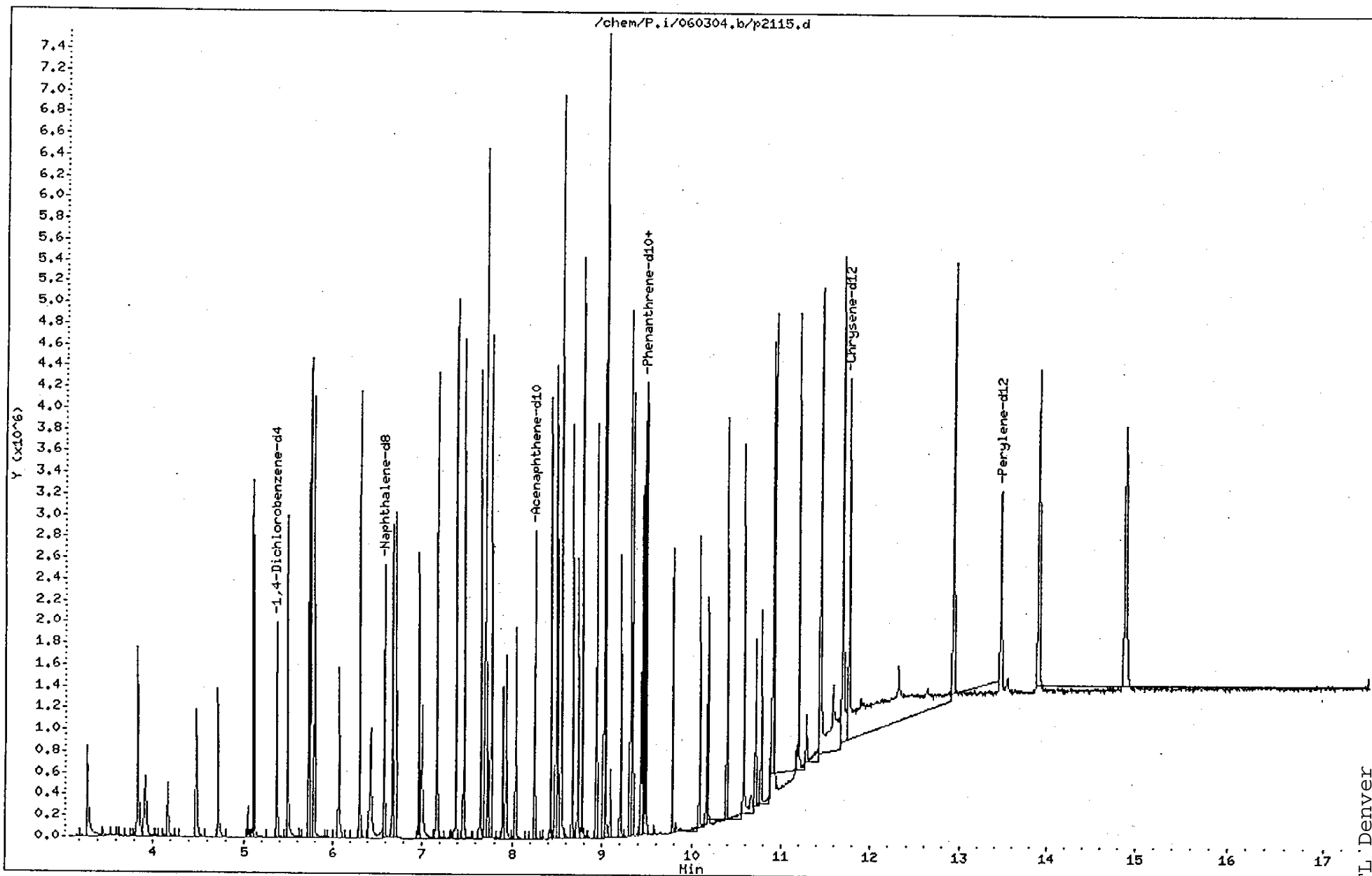
Instrument: P.1

Operator: kiddd

Column diameter: 0.25

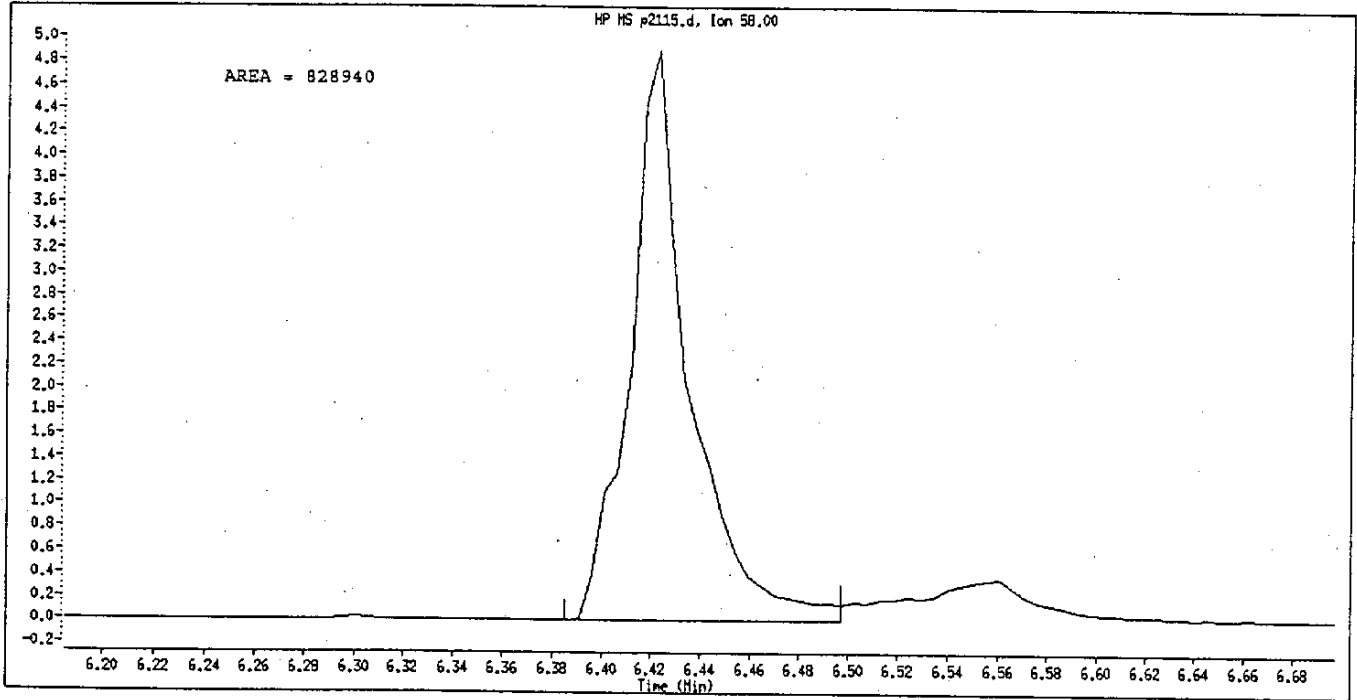
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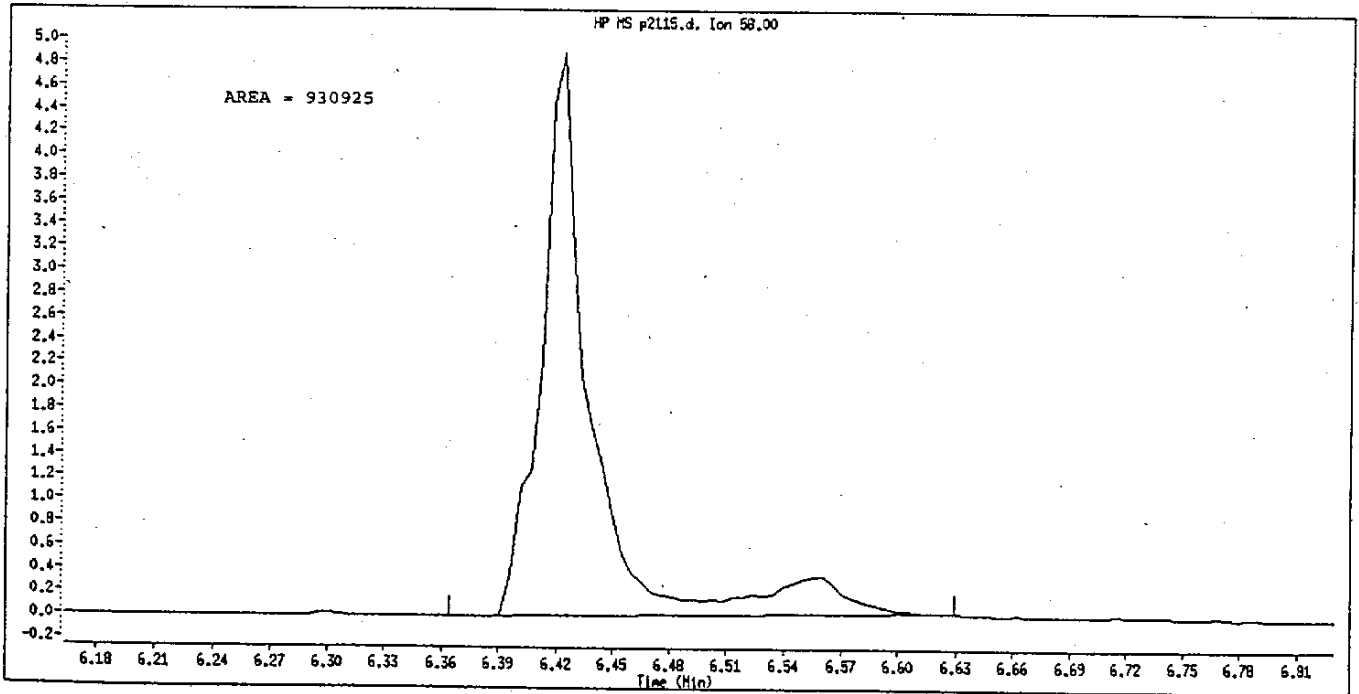


STL Denver

Data File Name: p2115.d  
Inj. Date and Time: 03-JUN-2004 06:41  
Instrument ID: P.i  
Client ID: AP9\_0080  
Compound Name: a,a-Dimethylphenethylamine  
CAS #: 122-09-8  
Report Date: 06/03/2004



Original Integration



Manual Integration

Manually Integrated By: kidd  
Manual Integration Reason: Split Peak

*MLK*  
06-03-04

*JMP* 6/3/04

Report Date: 03-Jun-2004 13:20

### Calibration History

Method : /chem/P.i/060304.b/8270C.m

Start Cal Date: 29-MAY-2004 08:27

End Cal Date : 29-MAY-2004 18:33

#### Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 5.00000		
29-MAY-2004 12:25	1-HSL	/chem/P.i/052904.b/p2094.d
Cal Level: 2 , Cal Amount: 10.00000		
29-MAY-2004 16:23	4-CUST	/chem/P.i/052904.b/p2103.d
29-MAY-2004 12:51	1-HSL	/chem/P.i/052904.b/p2095.d
29-MAY-2004 08:53	2-AP9std	/chem/P.i/052904.b/p2086.d
Cal Level: 3 , Cal Amount: 20.00000		
29-MAY-2004 16:49	4-CUST	/chem/P.i/052904.b/p2104.d
29-MAY-2004 13:18	1-HSL	/chem/P.i/052904.b/p2096.d
29-MAY-2004 09:20	2-AP9std	/chem/P.i/052904.b/p2087.d
Cal Level: 4 , Cal Amount: 50.00000		
29-MAY-2004 17:15	4-CUST	/chem/P.i/052904.b/p2105.d
29-MAY-2004 13:44	1-HSL	/chem/P.i/052904.b/p2097.d
29-MAY-2004 09:46	2-AP9std	/chem/P.i/052904.b/p2088.d
Cal Level: 5 , Cal Amount: 80.00000		
29-MAY-2004 15:56	4-CUST	/chem/P.i/052904.b/p2102.d
29-MAY-2004 11:58	1-HSL	/chem/P.i/052904.b/p2093.d
29-MAY-2004 08:27	2-AP9std	/chem/P.i/052904.b/p2085.d
Cal Level: 6 , Cal Amount: 120.00000		
29-MAY-2004 17:41	4-CUST	/chem/P.i/052904.b/p2106.d
29-MAY-2004 14:11	1-HSL	/chem/P.i/052904.b/p2098.d
29-MAY-2004 10:12	2-AP9std	/chem/P.i/052904.b/p2089.d
Cal Level: 7 , Cal Amount: 160.00000		
29-MAY-2004 18:07	4-CUST	/chem/P.i/052904.b/p2107.d
29-MAY-2004 14:37	1-HSL	/chem/P.i/052904.b/p2099.d
29-MAY-2004 10:39	2-AP9std	/chem/P.i/052904.b/p2090.d



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+-----+
| Cal Level: 8 , Cal Amount: 200.00000
+-----+
| 29-MAY-2004 18:33 | 4-CUST | /chem/P.i/052904.b/p2108.d
| 29-MAY-2004 15:04 | 1-HSL | /chem/P.i/052904.b/p2100.d
| 29-MAY-2004 11:05 | 2-AP9std | /chem/P.i/052904.b/p2091.d
+-----+

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Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 5

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+-----+
| Ccal Level: 5 , Ccal Amount: 80.0000
+-----+
| 03-JUN-2004 06:15 | 1-HSL | /chem/P.i/060304.b/p2114.d ✓
+-----+
| Ccal Level: 5 , Ccal Amount: 80.0000
+-----+
| 03-JUN-2004 06:41 | 2-AP9std | /chem/P.i/060304.b/p2115.d ✓
+-----+

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**GC/MS SEMIVOLATILE  
SAMPLE DATA**

**SEVERN  
TRENT**

**STL**

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/060304.b/p2116.d  
 Lab Smp Id: GG1521AA Client Smp ID: INTRA-LAB BLANK  
 Inj Date : 03-JUN-2004 07:42  
 Operator : kiddd Inst ID: P.i  
 Smp Info : GG1521AA,,D4E250000-358  
 Misc Info : 4146358  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/060304.b/8270C.m  
 Meth Date : 03-Jun-2004 13:20 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 18:33 Cal File: p2108.d  
 Als bottle: 6 QC Sample: BLANK  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: HSL+AP9.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Ws \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Ws	30.00000	weight of sample extracted (g)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/ml)	FINAL (ug/Kg)
* 22 1,4-Dichlorobenzene-d4	152	5.360	5.364	(1.000)	241878	40.0000		
* 49 Naphthalene-d8	136	6.577	6.576	(1.000)	927125	40.0000		
* 83 Acenaphthene-d10	164	8.246	8.250	(1.000)	529761	40.0000		
* 117 Phenanthrene-d10	188	9.494	9.488	(1.000)	966436	40.0000		
* 142 Chrysene-d12	240	11.801	11.758	(1.000)	1155313	40.0000		
* 151 Perylene-d12	264	13.517	13.469	(1.000)	982638	40.0000		
\$ 36 Nitrobenzene-d5	82	5.902	5.901	(1.101)	615261	82.8131	2760.44	
\$ 70 2-Fluorobiphenyl	172	7.608	7.607	(0.923)	1250641	74.1799	2472.66	
\$ 133 Terphenyl-d14	244	10.802	10.769	(0.915)	1243753	74.3085	2476.95	
\$ 10 2-Fluorophenol	112	4.281	4.280	(0.799)	860663	121.381	4046.03	
\$ 14 Phenol-d5	99	5.030	5.030	(0.939)	1029798	121.430	4047.66	
\$ 103 2,4,6-Tribromophenol	330	8.931	8.930	(0.941)	141645	100.352	3345.06	
\$ 163 1,2-Dichlorobenzene-d4	152	5.540	5.545	(1.034)	398413	77.4308	2581.03	
\$ 162 2-Chlorophenol-d4	132	5.190	5.194	(0.968)	861682	118.558	3951.94	
4 N-Nitrosodimethylamine	74						Compound Not Detected.	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL (ug/Kg)
-----	----	--	-----	-----	-----	-----	-----
5 Pyridine	79		Compound	Not	Detected.		
7 2-Picoline	93		Compound	Not	Detected.		
8 N-Nitrosomethylethylamine	88		Compound	Not	Detected.		
9 Methyl methanesulfonate	80		Compound	Not	Detected.		
11 N-Nitrosodiethylamine	102		Compound	Not	Detected.		
13 Ethyl methanesulfonate	79		Compound	Not	Detected.		
15 Phenol	94		Compound	Not	Detected.		
16 Aniline	93		Compound	Not	Detected.		
19 Pentachloroethane	117		Compound	Not	Detected.		
18 Bis(2-chloroethyl) ether	93		Compound	Not	Detected.		
20 2-Chlorophenol	128		Compound	Not	Detected.		
21 1,3-Dichlorobenzene	146		Compound	Not	Detected.		
23 1,4-Dichlorobenzene	146		Compound	Not	Detected.		
25 1,2-Dichlorobenzene	146		Compound	Not	Detected.		
24 Benzyl alcohol	108		Compound	Not	Detected.		
26 2-Methylphenol	108		Compound	Not	Detected.		
28 2,2'-oxybis(1-chloropropane)	45		Compound	Not	Detected.		
29 4-Methylphenol	108		Compound	Not	Detected.		
31 N-Nitrosopyrrolidine	100		Compound	Not	Detected.		
32 Acetophenone	105		Compound	Not	Detected.		
34 N-Nitrosomorpholine	116		Compound	Not	Detected.		
35 o-Toluidine	106		Compound	Not	Detected.		
30 N-nitrosodi-n-propylamine	70		Compound	Not	Detected.		
33 Hexachloroethane	117		Compound	Not	Detected.		
37 Nitrobenzene	77		Compound	Not	Detected.		
39 N-Nitrosopiperidine	114		Compound	Not	Detected.		
40 Isophorone	82		Compound	Not	Detected.		
41 2-Nitrophenol	139		Compound	Not	Detected.		
44 O,O,O-Triethyl phosphorothio	198		Compound	Not	Detected.		
42 2,4-Dimethylphenol	107		Compound	Not	Detected.		
43 Bis(2-chloroethoxy)methane	93		Compound	Not	Detected.		
45 Benzoic acid	122		Compound	Not	Detected.		
48 a,a-Dimethylphenethylamine	58		Compound	Not	Detected.		
46 2,4-Dichlorophenol	162		Compound	Not	Detected.		
47 1,2,4-Trichlorobenzene	180		Compound	Not	Detected.		
53 2,6-Dichlorophenol	162		Compound	Not	Detected.		
54 Hexachloropropene	213		Compound	Not	Detected.		
50 Naphthalene	128		Compound	Not	Detected.		
51 4-Chloroaniline	127		Compound	Not	Detected.		
52 Hexachlorobutadiene	225		Compound	Not	Detected.		
57 N-Nitrosodi-n-butylamine	84		Compound	Not	Detected.		
58 p-Phenylenediamine	108		Compound	Not	Detected.		
61 Safrole	162		Compound	Not	Detected.		
59 4-Chloro-3-methylphenol	107		Compound	Not	Detected.		
62 2-Methylnaphthalene	142		Compound	Not	Detected.		
64 1-Methylnaphthalene	142		Compound	Not	Detected.		
65 1,2,4,5-Tetrachlorobenzene	216		Compound	Not	Detected.		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL (ug/Kg)
-----	----	--	-----	-----	-----	-----	-----
63 Hexachlorocyclopentadiene	237				Compound Not Detected.		
66 Isosafrole (#1)	162				Compound Not Detected.		
72 Isosafrole (#2)	104				Compound Not Detected.		
73 1-Chloronaphthalene	162				Compound Not Detected.		
71 2-Chloronaphthalene	162				Compound Not Detected.		
67 2,4,6-Trichlorophenol	196				Compound Not Detected.		
68 2,4,5-Trichlorophenol	196				Compound Not Detected.		
75 1,4-Naphthoquinone	158				Compound Not Detected.		
74 2-Nitroaniline	65				Compound Not Detected.		
78 1,4-Dinitrobenzene	168				Compound Not Detected.		
80 1,3-Dinitrobenzene	168				Compound Not Detected.		
76 Dimethyl phthalate	163				Compound Not Detected.		
79 2,6-Dinitrotoluene	165				Compound Not Detected.		
81 Acenaphthylene	152				Compound Not Detected.		
82 3-Nitroaniline	138				Compound Not Detected.		
84 Acenaphthene	153				Compound Not Detected.		
89 Pentachlorobenzene	250				Compound Not Detected.		
85 2,4-Dinitrophenol	184				Compound Not Detected.		
86 4-Nitrophenol	109				Compound Not Detected.		
87 2,4-Dinitrotoluene	165				Compound Not Detected.		
88 Dibenzofuran	168				Compound Not Detected.		
90 1-Naphthylamine	143				Compound Not Detected.		
91 2,3,4,6-Tetrachlorophenol	232				Compound Not Detected.		
92 2-Naphthylamine	143				Compound Not Detected.		
98 Thionazin	97				Compound Not Detected.		
93 Diethyl phthalate	149				Compound Not Detected.		
100 5-Nitro-o-toluidine	152				Compound Not Detected.		
96 Fluorene	166				Compound Not Detected.		
95 4-Chlorophenyl phenyl ether	204				Compound Not Detected.		
97 4-Nitroaniline	138				Compound Not Detected.		
99 4,6-Dinitro-2-methylphenol	198				Compound Not Detected.		
101 N-nitrosodiphenylamine	169				Compound Not Detected.		
182 Diphenylamine	169				Compound Not Detected.		
102 Azobenzene	77				Compound Not Detected.		
104 Sulfotepp	97				Compound Not Detected.		
105 1,3,5-Trinitrobenzene	213				Compound Not Detected.		
107 Phorate	121				Compound Not Detected.		
109 Phenacetin	108				Compound Not Detected.		
106 Diallate (#1)	86				Compound Not Detected.		
111 Diallate (#2)	86				Compound Not Detected.		
108 4-Bromophenyl phenyl ether	248				Compound Not Detected.		
110 Hexachlorobenzene	284				Compound Not Detected.		
112 Dimethoate	87				Compound Not Detected.		
114 4-Aminobiphenyl	169				Compound Not Detected.		
115 Pentachloronitrobenzene	237				Compound Not Detected.		
116 Pronamide	173				Compound Not Detected.		
113 Pentachlorophenol	266				Compound Not Detected.		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL (ug/Kg)
*****	****	==	*****	*****	*****	*****	*****
120 2-secbutyl-4,6-dinitropheno	211		Compound	Not	Detected.		
121 Disulfoton	88		Compound	Not	Detected.		
118 Phenanthrene	178		Compound	Not	Detected.		
122 Anthracene	178		Compound	Not	Detected.		
123 Carbazole	167		Compound	Not	Detected.		
124 Methyl parathion	109		Compound	Not	Detected.		
125 Di-n-butyl phthalate	149		Compound	Not	Detected.		
126 Parathion	109		Compound	Not	Detected.		
127 4-Nitroquinoline-1-oxide	190		Compound	Not	Detected.		
128 Methapyrilene	97		Compound	Not	Detected.		
129 Isodrin	193		Compound	Not	Detected.		
130 Fluoranthene	202		Compound	Not	Detected.		
131 Benzidine	184		Compound	Not	Detected.		
132 Pyrene	202		Compound	Not	Detected.		
134 Aramite (#1)	185		Compound	Not	Detected.		
135 Aramite (#2)	185		Compound	Not	Detected.		
136 p-Dimethylaminoazobenzene	120		Compound	Not	Detected.		
138 3,3'-Dimethylbenzidine	212		Compound	Not	Detected.		
137 Butyl benzyl phthalate	149		Compound	Not	Detected.		
139 2-Acetylaminofluorene	181		Compound	Not	Detected.		
140 3 3'-Dichlorobenzidine	252		Compound	Not	Detected.		
143 Bis(2-ethylhexyl) phthalate	149		Compound	Not	Detected.		
141 Benzo(a)anthracene	228		Compound	Not	Detected.		
144 Chrysene	228		Compound	Not	Detected.		
146 Di-n-octyl phthalate	149		Compound	Not	Detected.		
149 7,12-Dimethylbenz(a)anthrac	256		Compound	Not	Detected.		
147 Benzo(b)fluoranthene	252		Compound	Not	Detected.		
148 Benzo(k)fluoranthene	252		Compound	Not	Detected.		
150 Benzo(a)pyrene	252		Compound	Not	Detected.		
152 3-Methylcholanthrene	268		Compound	Not	Detected.		
153 Dibenz(a,j)acridine	279		Compound	Not	Detected.		
155 Indeno(1,2,3-cd)pyrene	276		Compound	Not	Detected.		
156 Dibenz(a,h)anthracene	278		Compound	Not	Detected.		
157 Benzo(g,h,i)perylene	276		Compound	Not	Detected.		
M 1 Total Isosafrole	162		Compound	Not	Detected.		
M 2 Total Diallate	86		Compound	Not	Detected.		
M 3 Total Aramite	185		Compound	Not	Detected.		
165 Chlorobenzilate	251		Compound	Not	Detected.		
168 Methyl Styrene	118		Compound	Not	Detected.		
27 1H-Indene	116		Compound	Not	Detected.		
199 1,4-Dioxane	88		Compound	Not	Detected.		
175 Biphenyl	154		Compound	Not	Detected.		
183 Hexachlorophene	196		Compound	Not	Detected.		
204 Atrazine	200		Compound	Not	Detected.		
205 Caprolactam	55		Compound	Not	Detected.		

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INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2116.d  
 Lab Smp Id: GG1521AA  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kidd  
 Method File: /chem/P.i/060304.b/8270C.m  
 Misc Info: 4146358

Calibration Date: 03-JUN-2004  
 Calibration Time: 06:15  
 Client Smp ID: INTRA-LAB BLANK  
 Level: LOW  
 Sample Type: SOIL

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	307581	153790	615162	241878	-21.36
49 Naphthalene-d8	1154692	577346	2309384	927125	-19.71
83 Acenaphthene-d10	647843	323922	1295686	529761	-18.23
117 Phenanthrene-d10	1149558	574779	2299116	966436	-15.93
142 Chrysene-d12	1355247	677624	2710494	1155313	-14.75
151 Perylene-d12	1299046	649523	2598092	982638	-24.36

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	-0.09
49 Naphthalene-d8	6.58	6.08	7.08	6.58	0.01
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	-0.06
117 Phenanthrene-d10	9.49	8.99	9.99	9.49	0.06
142 Chrysene-d12	11.76	11.26	12.26	11.80	0.37
151 Perylene-d12	13.47	12.97	13.97	13.52	0.36

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.

STL-Denver

RECOVERY REPORT

Client Name: Client SDG: D4E250000  
Sample Matrix: SOLID Fraction: SV  
Lab Smp Id: GG1521AA Client Smp ID: INTRA-LAB BLANK  
Level: LOW Operator: kidd  
Data Type: MS DATA SampleType: BLANK  
SpikeList File: 9HSOIL.spk Quant Type: ISTD  
Sublist File: HSL+AP9.sub  
Method File: /chem/P.i/060304.b/8270C.m  
Misc Info: 4146358

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	3333.33	2760.44	82.81	39-89
\$ 70 2-Fluorobiphenyl	3333.33	2472.66	74.18	35-86
\$ 133 Terphenyl-d14	3333.33	2476.95	74.31	30-98
\$ 10 2-Fluorophenol	5000.00	4046.03	80.92	28-95
\$ 14 Phenol-d5	5000.00	4047.66	80.95	35-90
\$ 103 2,4,6-Tribromophen	5000.00	3345.06	66.90	11-111
\$ 163 1,2-Dichlorobenzen	3333.33	2581.03	77.43	20-130
\$ 162 2-Chlorophenol-d4	5000.00	3951.94	79.04	20-130



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TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:  
Lab Smp Id: GG1521AA  
Operator : kiddd  
Sample Location: Generic Lab QC  
Sample Matrix: SOIL  
Analysis Type: SV

Client SDG: D4E250000  
Client Smp ID: INTRA-LAB BLANK  
Sample Date: 12-MAY-2004  
Sample Point:  
Date Received: 15-MAY-2004 00:00  
Level: LOW

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 141-79-7	3-Penten-2-one, 4-methyl-	3.680	183.786	NJ
2.	Unknown Aldol Condensate	4.031	34342.0	J

Data File: /chem/P.i/060304.b/p2116.d

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Date : 03-JUN-2004 07:42

Client ID: INTRA-LAB BLANK

Instrument: P.i

Sample Info: GC1521AA,,D4E250000-358

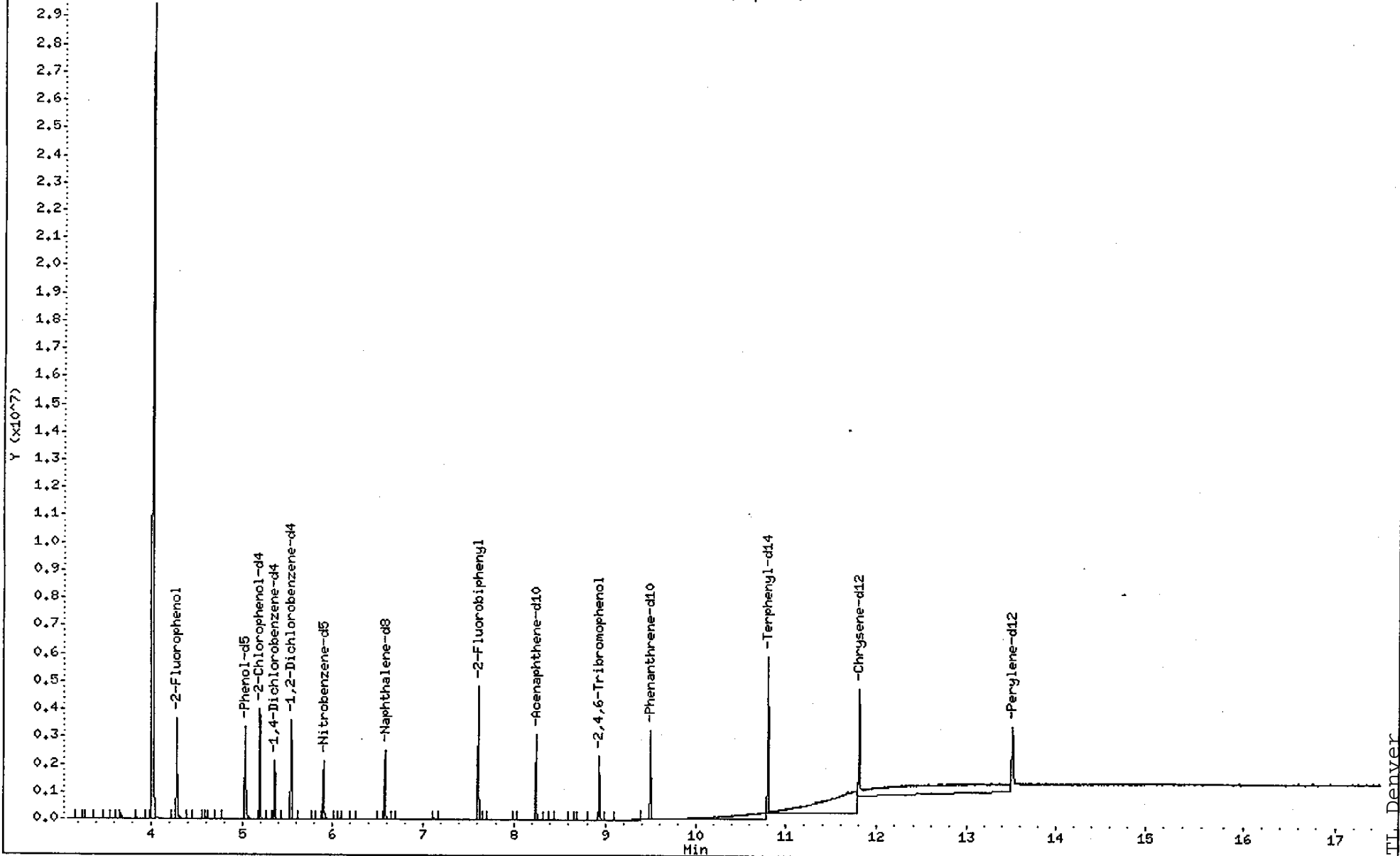
Volume Injected (uL): 0.5

Operator: kidd

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

/chem/P.i/060304.b/p2116.d



Date : 03-JUN-2004 07:42

Client ID: INTRA-LAB BLANK

Instrument: P.i

Sample Info: GG1521AA,,D4E250000-358

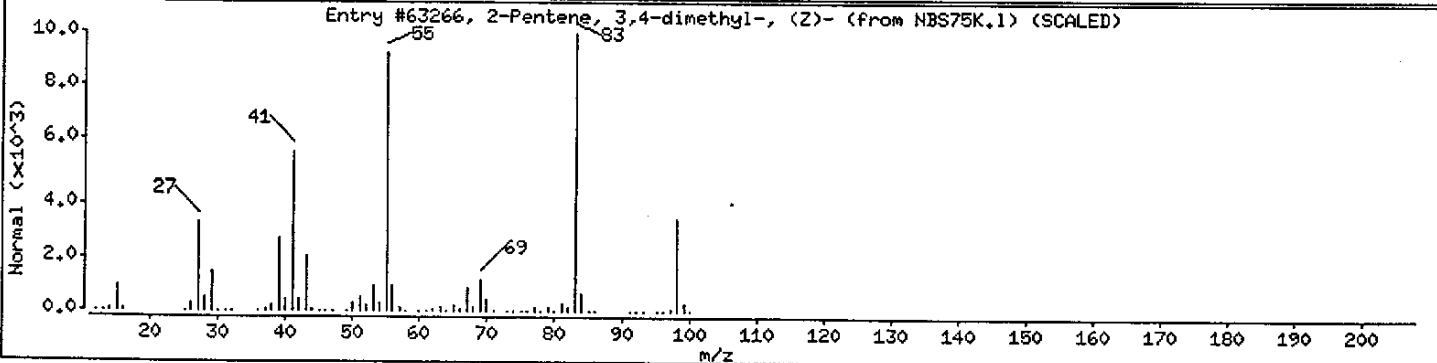
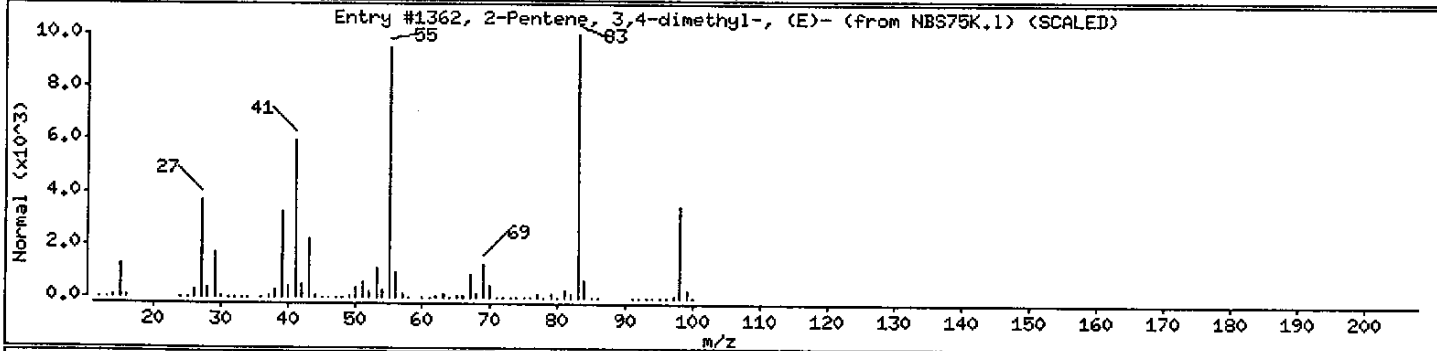
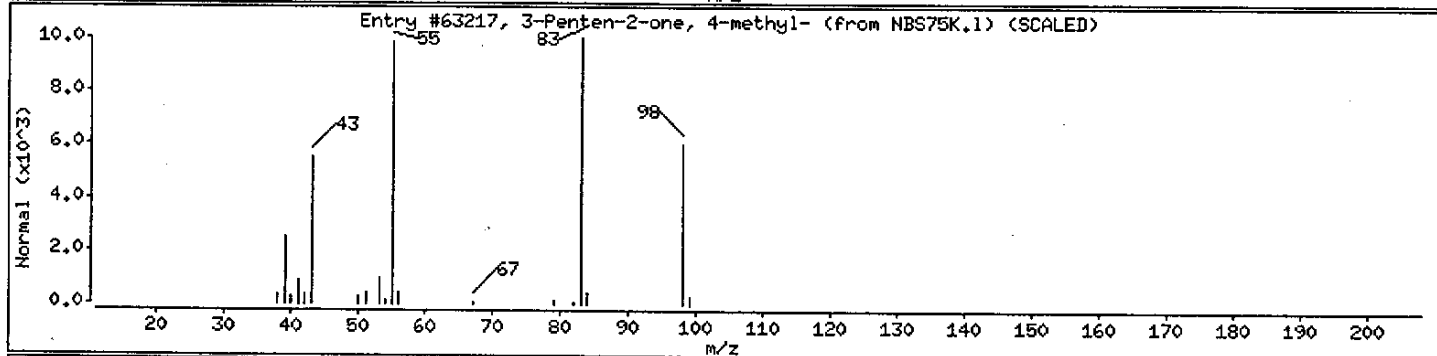
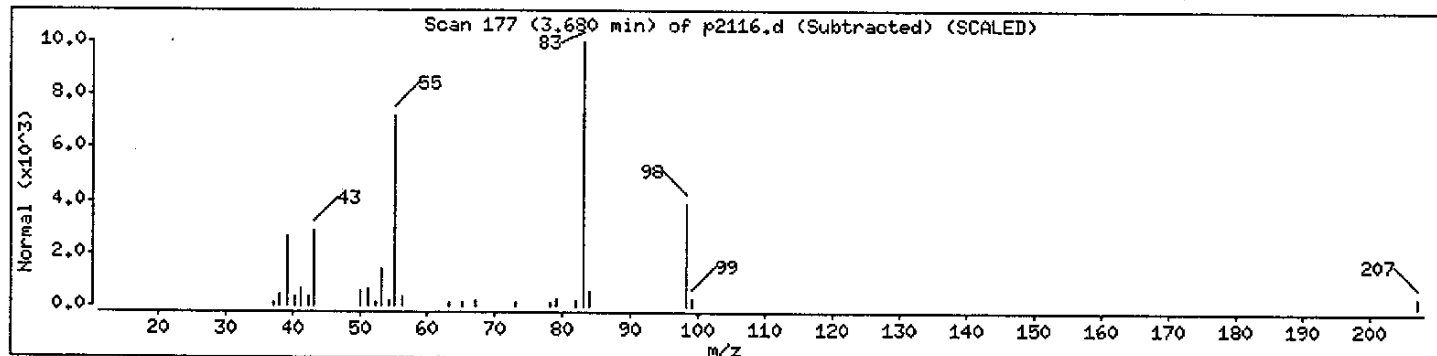
Volume Injected (uL): 0.5

Operator: kidd

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Penten-2-one, 4-methyl-	141-79-7	NBS75K.1	63217	86	C6H10O	98
2-Pentene, 3,4-dimethyl-, (E)-	4914-92-5	NBS75K.1	1362	86	C7H14	98
2-Pentene, 3,4-dimethyl-, (Z)-	4914-91-4	NBS75K.1	63266	86	C7H14	98



Date : 03-JUN-2004 07:42

Client ID: INTRA-LAB BLANK

Instrument: P.i

Sample Info: GC1521AA,,D4E250000-358

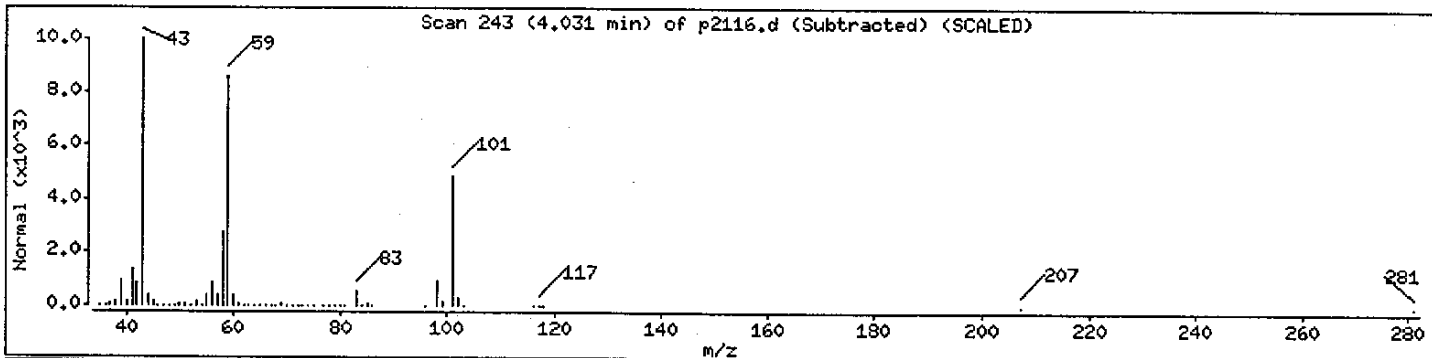
Volume Injected (uL): 0.5

Operator: kidd

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
Unknown			0	0		0



LCS SAMPLE

Data File : /chem/P.i/060304.b/p2117.d  
 Samp Info : GG1521AC,,D4E250000-358  
 Inj Date : 03-JUN-2004 08:08  
 Sample Amt : 30.0g

LCS D SAMPLE

Data File : /chem/P.i/060304.b/p2118.d  
 Samp Info : GG1521AD,,D4E250000-358  
 Inj Date : 03-JUN-2004 08:34  
 Sample Amt : 30.0g

Sample #	Sample #	Sample #	Sample #	Sample #

Spiked	Concentration			%Recovery		RPD			
	LCS	Measured LCS D	Avg.	Meas.	Min	Max	Meas.	Max	
4-Nitrophenol	5000.0	2949.8	2850.5	2900.2	58.0	37	103	3	40
Pyrene	3333.3	2572.2	2190.3	2381.2	71.4	46	95	16	40
Pentachlorophenol	5000.0	3587.9	3126.7	3357.3	67.1	37	96	14	40
2,4-Dinitrotoluene	3333.3	2501.1	2270.3	2385.7	71.6	51	98	10	40
Phenol	5000.0	3924.0	3475.7	3699.9	74.0	52	92	12	37
2-Chlorophenol	5000.0	3939.2	3479.8	3709.5	74.2	52	92	12	36
1,4-Dichlorobenzene	3333.3	2467.8	2154.3	2311.0	69.3	47	87	14	40
N-nitrosodi-n-propylamine	3333.3	2636.8	2340.1	2488.5	74.7	46	90	12	40
1,2,4-Trichlorobenzene	3333.3	2520.3	2196.5	2358.4	70.8	49	89	14	40
4-Chloro-3-methylphenol	5000.0	3962.1	3610.6	3786.3	75.7	53	93	9	40
Acenaphthene	3333.3	2526.1	2232.2	2379.1	71.4	49	89	12	40

100.0 Percent of recoveries are within control limits.  
 100.0 Percent of RPD values are within control limits.

*MLV*  
 06-03-04

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/060304.b/p2117.d  
 Lab Smp Id: GG1521AC Client Smp ID: INTRA-LAB CHECK  
 Inj Date : 03-JUN-2004 08:08  
 Operator : kiddd Inst ID: P.i  
 Smp Info : GG1521AC,,D4E250000-358  
 Misc Info : 4146358  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/060304.b/8270C.m  
 Meth Date : 03-Jun-2004 13:20 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 18:33 Cal File: p2108.d  
 Als bottle: 7 QC Sample: LCS  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: DCS.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Ws \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Ws	30.00000	weight of sample extracted (g)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)
* 22 1,4-Dichlorobenzene-d4	152	5.363	5.364	(1.000)	239234	40.0000	
* 49 Naphthalene-d8	136	6.575	6.576	(1.000)	913739	40.0000	
* 83 Acenaphthene-d10	164	8.249	8.250	(1.000)	516962	40.0000	
* 117 Phenanthrene-d10	188	9.482	9.488	(1.000)	910134	40.0000	
* 142 Chrysene-d12	240	11.741	11.758	(1.000)	1008363	40.0000	
* 151 Perylene-d12	264	13.441	13.469	(1.000)	861918	40.0000	
\$ 36 Nitrobenzene-d5	82	5.905	5.901	(1.101)	580787	79.0369	2634.56
\$ 70 2-Fluorobiphenyl	172	7.606	7.607	(0.922)	1207719	73.4075	2446.92
\$ 133 Terphenyl-d14	244	10.757	10.769	(0.916)	1156305	79.1516	2638.39
\$ 10 2-Fluorophenol	112	4.290	4.280	(0.800)	793174	113.099	3769.97
\$ 14 Phenol-d5	99	5.034	5.030	(0.939)	969743	115.612	3853.74
\$ 103 2,4,6-Tribromophenol	330	8.929	8.930	(0.942)	157150	118.224	3940.80
\$ 163 1,2-Dichlorobenzene-d4	152	5.544	5.545	(1.034)	378469	74.3677	2478.92
\$ 162 2-Chlorophenol-d4	132	5.193	5.194	(0.968)	828582	115.264	3842.13
15 Phenol	94	5.044	5.046	(0.941)	1043853	117.721	3924.04

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/Kg)
-----	----	==	-----	-----	-----	-----	-----
20 2-Chlorophenol	128	5.209	5.210	(0.971)	886128	118.177	3939.22
23 1,4-Dichlorobenzene	146	5.379	5.380	(1.003)	622746	74.0331	2467.77
30 N-nitrosodi-n-propylamine	70	5.741	5.742	(1.070)	381838	79.1036	2636.79
47 1,2,4-Trichlorobenzene	180	6.527	6.528	(0.993)	521646	75.6088	2520.29
59 4-Chloro-3-methylphenol	107	7.096	7.102	(1.079)	717946	118.861	3962.05
84 Acenaphthene	153	8.276	8.277	(1.003)	1065669	75.7819	2526.06
86 4-Nitrophenol	109	8.339	8.341	(1.011)	199559	88.4950	2949.83
87 2,4-Dinitrotoluene	165	8.419	8.420	(1.021)	294454	75.0315	2501.05
113 Pentachlorophenol	266	9.370	9.372	(0.988)	228811	107.637	3587.91
132 Pyrene	202	10.688	10.700	(0.910)	1933162	77.1648	2572.16

STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2117.d  
 Lab Smp Id: GG1521AC  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kiddd  
 Method File: /chem/P.i/060304.b/8270C.m  
 Misc Info: 4146358

Calibration Date: 03-JUN-2004  
 Calibration Time: 06:15  
 Client Smp ID: INTRA-LAB CHECK  
 Level: LOW  
 Sample Type: SOIL

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	307581	153790	615162	239234	-22.22
49 Naphthalene-d8	1154692	577346	2309384	913739	-20.87
83 Acenaphthene-d10	647843	323922	1295686	516962	-20.20
117 Phenanthrene-d10	1149558	574779	2299116	910134	-20.83
142 Chrysene-d12	1355247	677624	2710494	1008363	-25.60
151 Perylene-d12	1299046	649523	2598092	861918	-33.65

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	-0.02
49 Naphthalene-d8	6.58	6.08	7.08	6.57	-0.02
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	-0.01
117 Phenanthrene-d10	9.49	8.99	9.99	9.48	-0.07
142 Chrysene-d12	11.76	11.26	12.26	11.74	-0.15
151 Perylene-d12	13.47	12.97	13.97	13.44	-0.21

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.



STL-Denver

RECOVERY REPORT

Client Name:	Client SDG: D4E250000
Sample Matrix: SOLID	Fraction: SV
Lab Smp Id: GG1521AC	Client Smp ID: INTRA-LAB CHECK
Level: LOW	Operator: kidd
Data Type: MS DATA	SampleType: LCS
SpikeList File: 02SOIL-DCS.spk	Quant Type: ISTD
Sublist File: DCS.sub	
Method File: /chem/P.i/060304.b/8270C.m	
Misc Info: 4146358	

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
15 Phenol	5000.00	3924.04	78.48	52-92
20 2-Chlorophenol	5000.00	3939.22	78.78	52-92
23 1,4-Dichlorobenzen	3333.33	2467.77	74.03	47-87
30 N-nitrosodi-n-prop	3333.33	2636.79	79.10	46-90
47 1,2,4-Trichloroben	3333.33	2520.29	75.61	49-89
59 4-Chloro-3-methylp	5000.00	3962.05	79.24	53-93
84 Acenaphthene	3333.33	2526.06	75.78	49-89
86 4-Nitrophenol	5000.00	2949.83	59.00	37-103
87 2,4-Dinitrotoluene	3333.33	2501.05	75.03	51-98
113 Pentachlorophenol	5000.00	3587.91	71.76	37-96
132 Pyrene	3333.33	2572.16	77.16	46-95

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	3333.33	2634.56	79.04	51-91
\$ 70 2-Fluorobiphenyl	3333.33	2446.92	73.41	47-88
\$ 133 Terphenyl-d14	3333.33	2638.39	79.15	50-103
\$ 10 2-Fluorophenol	5000.00	3769.97	75.40	52-92
\$ 14 Phenol-d5	5000.00	3853.74	77.07	52-92
\$ 103 2,4,6-Tribromophen	5000.00	3940.80	78.82	48-94
\$ 163 1,2-Dichlorobenzen	3333.33	2478.92	74.37	20-130
\$ 162 2-Chlorophenol-d4	5000.00	3842.13	76.84	20-130

STL-Denver

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:  
Lab Smp Id: GG1521AC  
Operator : kiddd  
Sample Location: Generic Lab QC  
Sample Matrix: SOIL  
Analysis Type: SV

Client SDG: D4E250000  
Client Smp ID: INTRA-LAB CHECK  
Sample Date: 12-MAY-2004  
Sample Point:  
Date Received: 15-MAY-2004 00:00  
Level: LOW

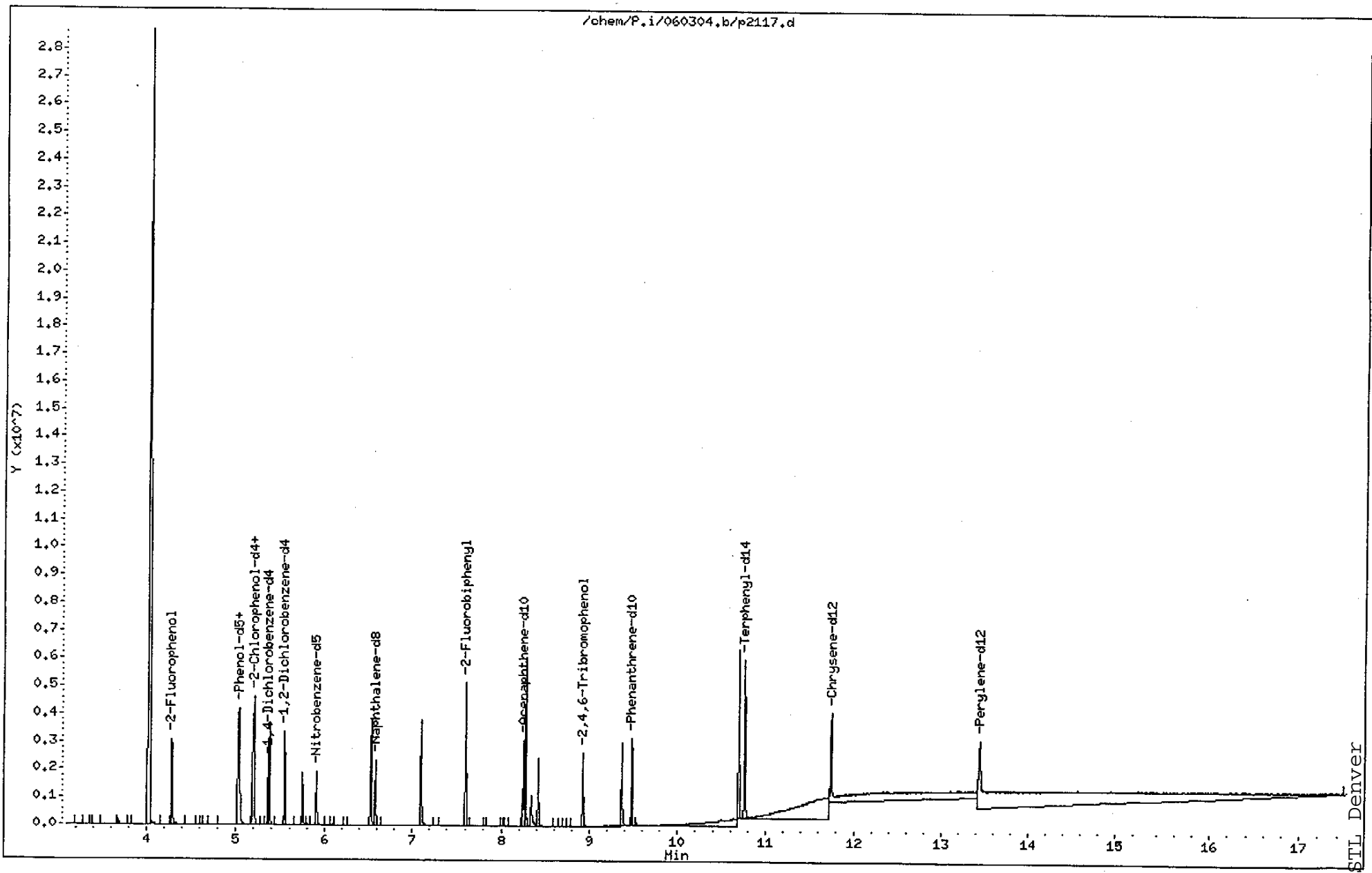
Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====

Data File: /chem/P.i/060304.b/p2117.d  
Date : 03-JUN-2004 08:08  
Client ID: INTRA-LAB CHECK  
Sample Info: GG1521AC,,D4E250000-358  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

Instrument: P.i  
Operator: kiddd  
Column diameter: 0.25



*MW*  
06-03-04

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/060304.b/p2118.d  
 Lab Smp Id: GG1521AD Client Smp ID: INTRA-LAB CHECK  
 Inj Date : 03-JUN-2004 08:34 Inst ID: P.i  
 Operator : kiddd  
 Smp Info : GG1521AD,,D4E250000-358  
 Misc Info : p2117.d  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/060304.b/8270C.m  
 Meth Date : 03-Jun-2004 13:20 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 18:33 Cal File: p2108.d  
 Als bottle: 8 QC Sample: LCSD  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: DCS.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Ws \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Ws	30.00000	weight of sample extracted (g)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG	MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
								ON-COLUMN (ug/ml)	FINAL (ug/Kg)
* 22 1,4-Dichlorobenzene-d4	152			5.364	5.364	(1.000)	251348	40.0000	
* 49 Naphthalene-d8	136			6.581	6.576	(1.000)	978444	40.0000	
* 83 Acenaphthene-d10	164			8.249	8.250	(1.000)	564886	40.0000	
* 117 Phenanthrene-d10	188			9.488	9.488	(1.000)	1042968	40.0000	
* 142 Chrysene-d12	240			11.741	11.758	(1.000)	1200360	40.0000	
* 151 Perylene-d12	264			13.441	13.469	(1.000)	999221	40.0000	
\$ 36 Nitrobenzene-d5	82			5.906	5.901	(1.101)	545127	70.6087	2353.62
\$ 70 2-Fluorobiphenyl	172			7.606	7.607	(0.922)	1154601	64.2251	2140.84
\$ 133 Terphenyl-d14	244			10.758	10.769	(0.916)	1200912	69.0564	2301.88
\$ 10 2-Fluorophenol	112			4.290	4.280	(0.800)	744333	101.020	3367.32
\$ 14 Phenol-d5	99			5.034	5.030	(0.939)	911514	103.433	3447.75
\$ 103 2,4,6-Tribromophenol	330			8.930	8.930	(0.941)	147155	96.6053	3220.18
\$ 163 1,2-Dichlorobenzene-d4	152			5.544	5.545	(1.034)	349805	65.4225	2180.75
\$ 162 2-Chlorophenol-d4	132			5.199	5.194	(0.969)	777945	103.004	3433.47
15 Phenol	94			5.045	5.046	(0.941)	971415	104.272	3475.73

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/Kg)
-----	----	--	-----	-----	-----	-----	-----
20 2-Chlorophenol	128	5.209	5.210	(0.971)	822412	104.393	3479.77
23 1,4-Dichlorobenzene	146	5.380	5.380	(1.003)	571158	64.6277	2154.26
30 N-nitrosodi-n-propylamine	70	5.741	5.742	(1.070)	356039	70.2041	2340.14
47 1,2,4-Trichlorobenzene	180	6.527	6.528	(0.992)	486829	65.8960	2196.53
59 4-Chloro-3-methylphenol	107	7.096	7.102	(1.078)	700590	108.318	3610.59
84 Acenaphthene	153	8.276	8.277	(1.003)	1029010	66.9670	2232.23
86 4-Nitrophenol	109	8.340	8.341	(1.011)	209722	85.5161	2850.54
87 2,4-Dinitrotoluene	165	8.419	8.420	(1.021)	290212	68.1106	2270.35
113 Pentachlorophenol	266	9.371	9.372	(0.988)	225176	93.8022	3126.74
132 Pyrene	202	10.689	10.700	(0.910)	1959610	65.7092	2190.31

STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2118.d  
 Lab Smp Id: GG1521AD  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kidd  
 Method File: /chem/P.i/060304.b/8270C.m  
 Misc Info: p2117.d

Calibration Date: 03-JUN-2004  
 Calibration Time: 06:15  
 Client Smp ID: INTRA-LAB CHECK  
 Level: LOW  
 Sample Type: SOIL

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	307581	153790	615162	251348	-18.28
49 Naphthalene-d8	1154692	577346	2309384	978444	-15.26
83 Acenaphthene-d10	647843	323922	1295686	564886	-12.81
117 Phenanthrene-d10	1149558	574779	2299116	1042968	-9.27
142 Chrysene-d12	1355247	677624	2710494	1200360	-11.43
151 Perylene-d12	1299046	649523	2598092	999221	-23.08

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	-0.02
49 Naphthalene-d8	6.58	6.08	7.08	6.58	0.07
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	-0.01
117 Phenanthrene-d10	9.49	8.99	9.99	9.49	-0.01
142 Chrysene-d12	11.76	11.26	12.26	11.74	-0.14
151 Perylene-d12	13.47	12.97	13.97	13.44	-0.20

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.

STL-Denver

RECOVERY REPORT

Client Name: Client SDG: D4E250000  
 Sample Matrix: SOLID Fraction: SV  
 Lab Smp Id: GG1521AD Client Smp ID: INTRA-LAB CHECK  
 Level: LOW Operator: kiddd  
 Data Type: MS DATA SampleType: LCSD  
 SpikeList File: 02SOIL-DCS.spk Quant Type: ISTD  
 Sublist File: DCS.sub  
 Method File: /chem/P.i/060304.b/8270C.m  
 Misc Info: p2117.d

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
15 Phenol	5000.00	3475.73	69.51	52-92
20 2-Chlorophenol	5000.00	3479.77	69.60	52-92
23 1,4-Dichlorobenzen	3333.33	2154.26	64.63	47-87
30 N-nitrosodi-n-prop	3333.33	2340.14	70.20	46-90
47 1,2,4-Trichloroben	3333.33	2196.53	65.90	49-89
59 4-Chloro-3-methylp	5000.00	3610.59	72.21	53-93
84 Acenaphthene	3333.33	2232.23	66.97	49-89
86 4-Nitrophenol	5000.00	2850.54	57.01	37-103
87 2,4-Dinitrotoluene	3333.33	2270.35	68.11	51-98
113 Pentachlorophenol	5000.00	3126.74	62.53	37-96
132 Pyrene	3333.33	2190.31	65.71	46-95

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	3333.33	2353.62	70.61	51-91
\$ 70 2-Fluorobiphenyl	3333.33	2140.84	64.23	47-88
\$ 133 Terphenyl-d14	3333.33	2301.88	69.06	50-103
\$ 10 2-Fluorophenol	5000.00	3367.32	67.35	52-92
\$ 14 Phenol-d5	5000.00	3447.75	68.96	52-92
\$ 103 2,4,6-Tribromophen	5000.00	3220.18	64.40	48-94
\$ 163 1,2-Dichlorobenzen	3333.33	2180.75	65.42	20-130
\$ 162 2-Chlorophenol-d4	5000.00	3433.47	68.67	20-130

STL-Denver

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:  
Lab Smp Id: GG1521AD  
Operator : kiddd  
Sample Location: Generic Lab QC  
Sample Matrix: SOIL  
Analysis Type: SV

Client SDG: D4E250000  
Client Smp ID: INTRA-LAB CHECK  
Sample Date: 12-MAY-2004  
Sample Point:  
Date Received: 15-MAY-2004 00:00  
Level: LOW

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====



Data File: /chem/P.i/060304.b/p2118.d

Date: 03-JUN-2004 08:34

Client ID: INTRA-LAB CHECK

Sample Info: GC1521AD,,D4E250000-358

Volume Injected (uL): 0.5

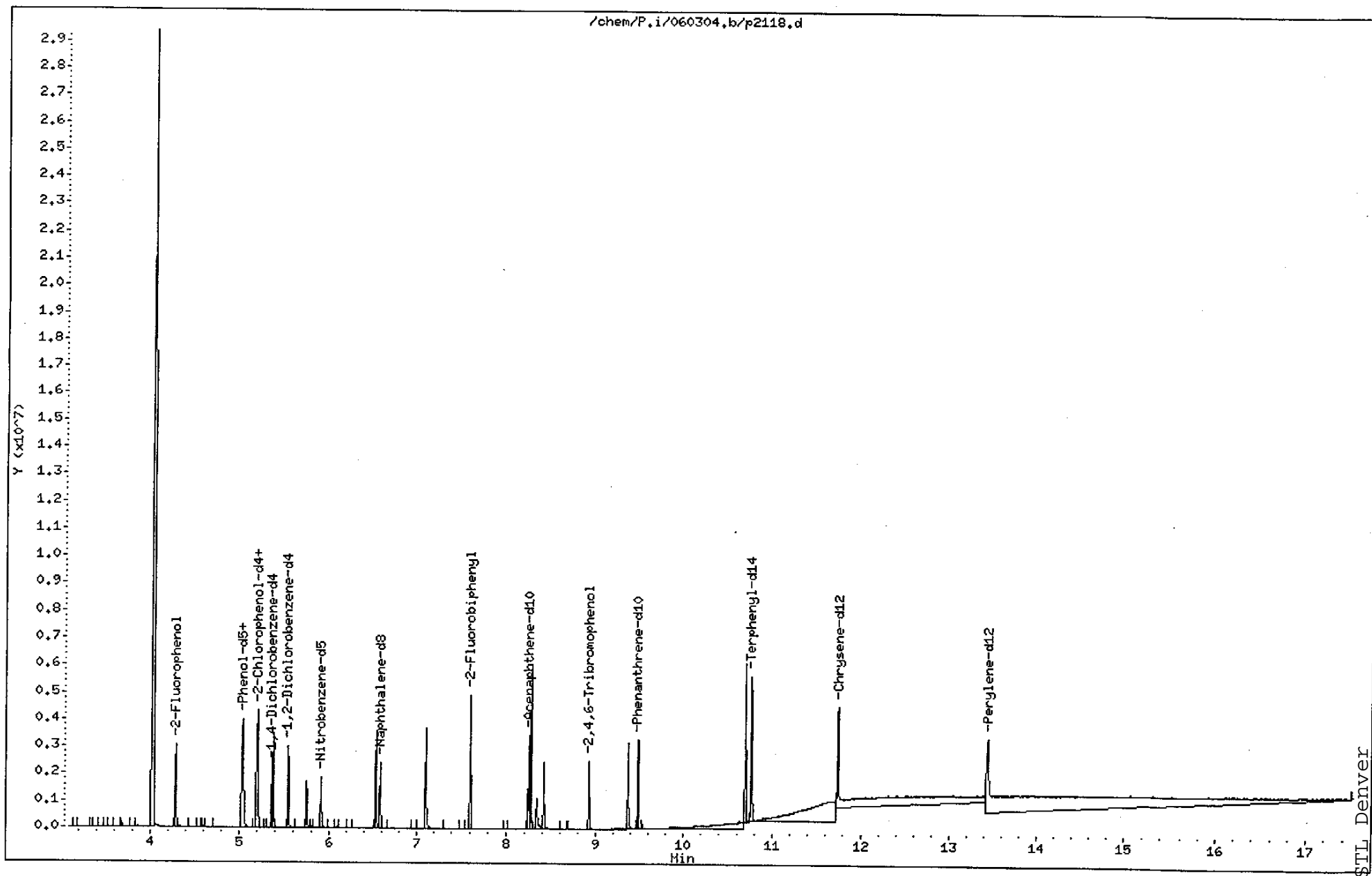
Column phase: Rtx-5ms 30m 0.5um

Instrument: P.i

Operator: kidd

Column diameter: 0.25

Page 6



Matrix Spike Report

UNSPIKED SAMPLE

Data File : /chem/P.i/060304.b/p2132.d  
 Samp Info : GGCR01AR,,D4E150139-009  
 Inj Date : 03-JUN-2004 14:47  
 Sample Amt : 30.0g

SPIKE SAMPLE

Data File : /chem/P.i/060304.b/p2133.d  
 Samp Info : GGCR01CP,,D4E150139-009S  
 Inj Date : 03-JUN-2004 15:14  
 Sample Amt : 30.0g

SPIKE DUPLICATE SAMPLE

Data File : /chem/P.i/060304.b/p2134.d  
 Samp Info : GGCR01CR,,D4E150139-009D  
 Inj Date : 03-JUN-2004 15:41  
 Sample Amt : 30.0g

Sample Measured	Concentration MS		MSD		%Recovery Measured Limits				RPD		
	Spiked	Measured	Spiked	Measured	MS	MSD	Min	Max	Mes	Max	
2,4-Dinitrotoluene	0.0	3333.3	1876.3	3333.3	2076.7	56	62	31	105	10	40
4-Nitrophenol	0.0	5000.0	3222.6	5000.0	3915.1	64	78	10	128	19	40
Acenaphthene	0.0	3333.3	1673.6	3333.3	1859.0	50	56	25	101	10	40
1,2,4-Trichlorobenzene	0.0	3333.3	1603.9	3333.3	1767.1	48	53	33	88	10	40
1,4-Dichlorobenzene	0.0	3333.3	1400.1	3333.3	1618.3	42	49	34	81	14	40
N-nitrosodi-n-propylamine	0.0	3333.3	1774.4	3333.3	2008.8	53	60	33	91	12	40
2-Chlorophenol	0.0	5000.0	2621.5	5000.0	2844.2	52	57	25	95	8	36
4-Chloro-3-methylphenol	0.0	5000.0	2986.8	5000.0	3343.3	60	67	32	97	11	40
Phenol	0.0	5000.0	2657.0	5000.0	2861.7	53	57	34	93	7	37
Pentachlorophenol	0.0	5000.0	1812.6	5000.0	1966.2	36	39	10	101	8	40
Pyrene	386.9	3333.3	2105.5	3333.3	2397.0	52	60	13	105	13	40

100.0 Percent of recoveries are within control limits.  
 100.0 Percent of RPD values are within control limits.

*mcx*  
 06-04-04

STL-Denver

BNA ANALYSIS QUANTITATION REPORT

Data file : /chem/P.i/060304.b/p2122.d  
 Lab Smp Id: GGTF41AD Client Smp ID: 01-SC-01  
 Inj Date : 03-JUN-2004 10:18  
 Operator : kiddd Inst ID: P.i  
 Smp Info : GGTF41AD,,D4E210325-010  
 Misc Info : 4146358  
 Comment : SOP#CORP-MS-0001DEN, revision1.1  
 Method : /chem/P.i/060304.b/8270C.m  
 Meth Date : 03-Jun-2004 13:20 kiddd Quant Type: ISTD  
 Cal Date : 29-MAY-2004 18:33 Cal File: p2108.d  
 Als bottle: 12  
 Dil Factor: 1.00000  
 Integrator: HP RTE Compound Sublist: HSL+AP9.sub  
 Target Version: 3.50  
 Processing Host: chemsv03

Concentration Formula: Amt \* DF \* Vf/Ws \* CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vf	1000.00000	final volume at end of extraction (uL)
Ws	30.00000	weight of sample extracted (g)

Cpnd Variable

Local Compound Variable

Compounds	QUANT	SIG					CONCENTRATIONS	
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)
* 22 1,4-Dichlorobenzene-d4	152		5.365	5.364	(1.000)	233037	40.0000	
* 49 Naphthalene-d8	136		6.577	6.576	(1.000)	886706	40.0000	
* 83 Acenaphthene-d10	164		8.245	8.250	(1.000)	520351	40.0000	
* 117 Phenanthrene-d10	188		9.489	9.488	(1.000)	984936	40.0000	
* 142 Chrysene-d12	240		11.774	11.758	(1.000)	1185490	40.0000	
* 151 Perylene-d12	264		13.485	13.469	(1.000)	1065457	40.0000	
\$ 36 Nitrobenzene-d5	82		5.902	5.901	(1.100)	561087	78.3865	2612.88
\$ 70 2-Fluorobiphenyl	172		7.608	7.607	(0.923)	1150638	69.4825	2316.08
\$ 133 Terphenyl-d14	244		10.780	10.769	(0.916)	1241065	72.2605	2408.68
\$ 10 2-Fluorophenol	112		4.286	4.280	(0.799)	774468	113.368	3778.95
\$ 14 Phenol-d5	99		5.035	5.030	(0.939)	930922	113.935	3797.84
\$ 103 2,4,6-Tribromophenol	330		8.931	8.930	(0.941)	167198	116.230	3874.35
\$ 163 1,2-Dichlorobenzene-d4	152		5.546	5.545	(1.034)	335890	67.7562	2258.54
\$ 162 2-Chlorophenol-d4	132		5.195	5.194	(0.968)	787062	112.400	3746.65
4 N-Nitrosodimethylamine	74		Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL (ug/Kg)
-----	----	==	=====	=====	=====	=====	=====
5 Pyridine	79				Compound Not Detected.		
7 2-Picoline	93				Compound Not Detected.		
8 N-Nitrosomethylethylamine	88				Compound Not Detected.		
9 Methyl methanesulfonate	80				Compound Not Detected.		
11 N-Nitrosodiethylamine	102				Compound Not Detected.		
13 Ethyl methanesulfonate	79				Compound Not Detected.		
15 Phenol	94				Compound Not Detected.		
16 Aniline	93				Compound Not Detected.		
19 Pentachloroethane	117				Compound Not Detected.		
18 Bis(2-chloroethyl) ether	93				Compound Not Detected.		
20 2-Chlorophenol	128				Compound Not Detected.		
21 1,3-Dichlorobenzene	146				Compound Not Detected.		
23 1,4-Dichlorobenzene	146				Compound Not Detected.		
25 1,2-Dichlorobenzene	146				Compound Not Detected.		
24 Benzyl alcohol	108				Compound Not Detected.		
26 2-Methylphenol	108				Compound Not Detected.		
28 2,2'-oxybis(1-chloropropane)	45				Compound Not Detected.		
29 4-Methylphenol	108				Compound Not Detected.		
31 N-Nitrosopyrrolidine	100				Compound Not Detected.		
32 Acetophenone	105				Compound Not Detected.		
34 N-Nitrosomorpholine	116				Compound Not Detected.		
35 o-Toluidine	106				Compound Not Detected.		
30 N-nitrosodi-n-propylamine	70				Compound Not Detected.		
33 Hexachloroethane	117				Compound Not Detected.		
37 Nitrobenzene	77				Compound Not Detected.		
39 N-Nitrosopiperidine	114				Compound Not Detected.		
40 Isophorone	82				Compound Not Detected.		
41 2-Nitrophenol	139				Compound Not Detected.		
44 O,O,O-Triethyl phosphorothio	198				Compound Not Detected.		
42 2,4-Dimethylphenol	107				Compound Not Detected.		
43 Bis(2-chloroethoxy)methane	93				Compound Not Detected.		
45 Benzoic acid	122				Compound Not Detected.		
48 a,a-Dimethylphenethylamine	58				Compound Not Detected.		
46 2,4-Dichlorophenol	162				Compound Not Detected.		
47 1,2,4-Trichlorobenzene	180				Compound Not Detected.		
53 2,6-Dichlorophenol	162				Compound Not Detected.		
54 Hexachloropropene	213				Compound Not Detected.		
50 Naphthalene	128				Compound Not Detected.		
51 4-Chloroaniline	127				Compound Not Detected.		
52 Hexachlorobutadiene	225				Compound Not Detected.		
57 N-Nitrosodi-n-butylamine	84				Compound Not Detected.		
58 p-Phenylenediamine	108				Compound Not Detected.		
61 Safrole	162				Compound Not Detected.		
59 4-Chloro-3-methylphenol	107				Compound Not Detected.		
62 2-Methylnaphthalene	142				Compound Not Detected.		
64 1-Methylnaphthalene	142				Compound Not Detected.		
65 1,2,4,5-Tetrachlorobenzene	216				Compound Not Detected.		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL (ug/Kg)
-----	----	==	=====	=====	-----	-----	-----
63 Hexachlorocyclopentadiene	237				Compound Not Detected.		
66 Isosafrole (#1)	162				Compound Not Detected.		
72 Isosafrole (#2)	104				Compound Not Detected.		
73 1-Chloronaphthalene	162				Compound Not Detected.		
71 2-Chloronaphthalene	162				Compound Not Detected.		
67 2,4,6-Trichlorophenol	196				Compound Not Detected.		
68 2,4,5-Trichlorophenol	196				Compound Not Detected.		
75 1,4-Naphthoquinone	158				Compound Not Detected.		
74 2-Nitroaniline	65				Compound Not Detected.		
78 1,4-Dinitrobenzene	168				Compound Not Detected.		
80 1,3-Dinitrobenzene	168				Compound Not Detected.		
76 Dimethyl phthalate	163				Compound Not Detected.		
79 2,6-Dinitrotoluene	165				Compound Not Detected.		
81 Acenaphthylene	152				Compound Not Detected.		
82 3-Nitroaniline	138				Compound Not Detected.		
84 Acenaphthene	153				Compound Not Detected.		
89 Pentachlorobenzene	250				Compound Not Detected.		
85 2,4-Dinitrophenol	184				Compound Not Detected.		
86 4-Nitrophenol	109				Compound Not Detected.		
87 2,4-Dinitrotoluene	165				Compound Not Detected.		
88 Dibenzofuran	168				Compound Not Detected.		
90 1-Naphthylamine	143				Compound Not Detected.		
91 2,3,4,6-Tetrachlorophenol	232				Compound Not Detected.		
92 2-Naphthylamine	143				Compound Not Detected.		
98 Thionazin	97				Compound Not Detected.		
93 Diethyl phthalate	149				Compound Not Detected.		
100 5-Nitro-o-toluidine	152				Compound Not Detected.		
96 Fluorene	166				Compound Not Detected.		
95 4-Chlorophenyl phenyl ether	204				Compound Not Detected.		
97 4-Nitroaniline	138				Compound Not Detected.		
99 4,6-Dinitro-2-methylphenol	198				Compound Not Detected.		
101 N-nitrosodiphenylamine	169				Compound Not Detected.		
182 Diphenylamine	169				Compound Not Detected.		
102 Azobenzene	77				Compound Not Detected.		
104 Sulfotepp	97				Compound Not Detected.		
105 1,3,5-Trinitrobenzene	213				Compound Not Detected.		
107 Phorate	121				Compound Not Detected.		
109 Phenacetin	108				Compound Not Detected.		
106 Diallate (#1)	86				Compound Not Detected.		
111 Diallate (#2)	86				Compound Not Detected.		
108 4-Bromophenyl phenyl ether	248				Compound Not Detected.		
110 Hexachlorobenzene	284				Compound Not Detected.		
112 Dimethoate	87				Compound Not Detected.		
114 4-Aminobiphenyl	169				Compound Not Detected.		
115 Pentachloronitrobenzene	237				Compound Not Detected.		
116 Pronamide	173				Compound Not Detected.		
113 Pentachlorophenol	266				Compound Not Detected.		

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/ml)	FINAL (ug/Kg)
120 2-secbutyl-4,6-dinitropheno	211						
121 Disulfoton	88						
118 Phenanthrene	178						
122 Anthracene	178						
123 Carbazole	167						
124 Methyl parathion	109						
125 Di-n-butyl phthalate	149						
126 Parathion	109						
127 4-Nitroquinoline-1-oxide	190						
128 Methapyrilene	97						
129 Isodrin	193						
130 Fluoranthene	202						
131 Benzidine	184						
132 Pyrene	202						
134 Aramite (#1)	185						
135 Aramite (#2)	185						
136 p-Dimethylaminoazobenzene	120						
138 3,3'-Dimethylbenzidine	212						
137 Butyl benzyl phthalate	149						
139 2-Acetylaminofluorene	181						
140 3 3'-Dichlorobenzidine	252						
143 Bis(2-ethylhexyl) phthalate	149						
141 Benzo(a)anthracene	228						
144 Chrysene	228						
146 Di-n-octyl phthalate	149						
149 7,12-Dimethylbenz(a)anthrac	256						
147 Benzo(b)fluoranthene	252						
148 Benzo(k)fluoranthene	252						
150 Benzo(a)pyrene	252						
152 3-Methylcholanthrene	268						
153 Dibenz(a,j)acridine	279						
155 Indeno(1,2,3-cd)pyrene	276						
156 Dibenz(a,h)anthracene	278						
157 Benzo(g,h,i)perylene	276						
M 1 Total Isosafrole	162						
M 2 Total Diallate	86						
M 3 Total Aramite	185						
165 Chlorobenzilate	251						
168 Methyl Styrene	118						
27 1H-Indene	116						
199 1,4-Dioxane	88	3.000	2.984	(0.559)	3806	1.16981	38.9936(a)
175 Biphenyl	154						
183 Hexachlorophene	196						
204 Atrazine	200						
205 Caprolactam	55						

QC Flag Legend

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

STL-Denver

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: P.i  
 Lab File ID: p2122.d  
 Lab Smp Id: GGTF41AD  
 Analysis Type: SV  
 Quant Type: ISTD  
 Operator: kidd  
 Method File: /chem/P.i/060304.b/8270C.m  
 Misc Info: 4146358

Calibration Date: 03-JUN-2004  
 Calibration Time: 06:15  
 Client Smp ID: 01-SC-01  
 Level: LOW  
 Sample Type: SOIL

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	307581	153790	615162	233037	-24.24
49 Naphthalene-d8	1154692	577346	2309384	886706	-23.21
83 Acenaphthene-d10	647843	323922	1295686	520351	-19.68
117 Phenanthrene-d10	1149558	574779	2299116	984936	-14.32
142 Chrysene-d12	1355247	677624	2710494	1185490	-12.53
151 Perylene-d12	1299046	649523	2598092	1065457	-17.98

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
22 1,4-Dichlorobenze	5.36	4.86	5.86	5.36	0.01
49 Naphthalene-d8	6.58	6.08	7.08	6.58	0.01
83 Acenaphthene-d10	8.25	7.75	8.75	8.25	-0.06
117 Phenanthrene-d10	9.49	8.99	9.99	9.49	0.00
142 Chrysene-d12	11.76	11.26	12.26	11.77	0.14
151 Perylene-d12	13.47	12.97	13.97	13.49	0.12

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.



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RECOVERY REPORT

Client Name: Cabrera Services  
Sample Matrix: SOLID  
Lab Smp Id: GGTF41AD  
Level: LOW  
Data Type: MS DATA  
SpikeList File: 9HSOIL.spk  
Sublist File: HSL+AP9.sub  
Method File: /chem/P.i/060304.b/8270C.m  
Misc Info: 4146358

Client SDG: D4E210325  
Fraction: SV  
Client Smp ID: 01-SC-01  
Operator: kidd  
SampleType: SAMPLE  
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
\$ 36 Nitrobenzene-d5	3333.33	2612.88	78.39	39-89
\$ 70 2-Fluorobiphenyl	3333.33	2316.08	69.48	35-86
\$ 133 Terphenyl-d14	3333.33	2408.68	72.26	30-98
\$ 10 2-Fluorophenol	5000.00	3778.95	75.58	28-95
\$ 14 Phenol-d5	5000.00	3797.84	75.96	35-90
\$ 103 2,4,6-Tribromophen	5000.00	3874.35	77.49	11-111
\$ 163 1,2-Dichlorobenzen	3333.33	2258.54	67.76	20-130
\$ 162 2-Chlorophenol-d4	5000.00	3746.65	74.93	20-130

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TENTATIVELY IDENTIFIED COMPOUNDS

Client Name: Cabrera Services                      Client SDG: D4E210325  
Lab Smp Id: GGTF41AD                              Client Smp ID: 01-SC-01  
Operator : kiddd                                      Sample Date: 20-MAY-2004  
Sample Location: USDA National Disease Center    Sample Point: e Center  
Sample Matrix: SOIL                                 Date Received: 21-MAY-2004 00:00  
Analysis Type: SV                                    Level: LOW

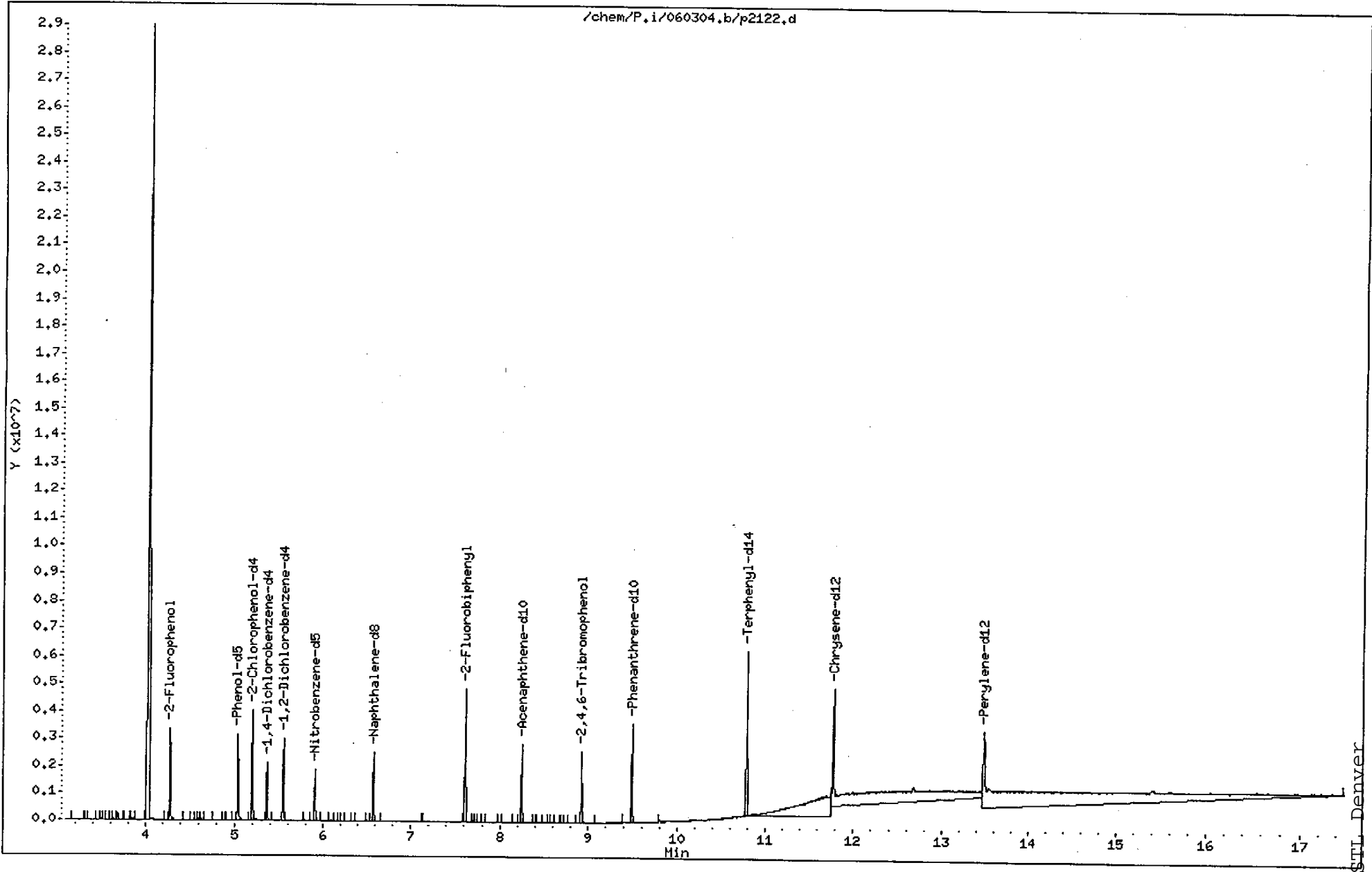
Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 141-79-7	3-Penten-2-one, 4-methyl-	3.686	175.516	NJ
2.	Unknown Aldol Condensate	4.036	31855.9	J

Data File: /chem/P.i/060304,b/p2122.d  
Date: 03-JUN-2004 10:18  
Client ID: 01-SC-01  
Sample Info: GGTF41AD,,D4E210325-010  
Volume Injected (uL): 0.5  
Column phase: Rtx-5ms 30m 0.5um

Instrument: P.i  
Operator: kidd  
Column diameter: 0.25



Date : 03-JUN-2004 10:18

Client ID: 01-SC-01

Instrument: P.i

Sample Info: GGTF41AD,,D4E210325-010

Volume Injected (uL): 0.5

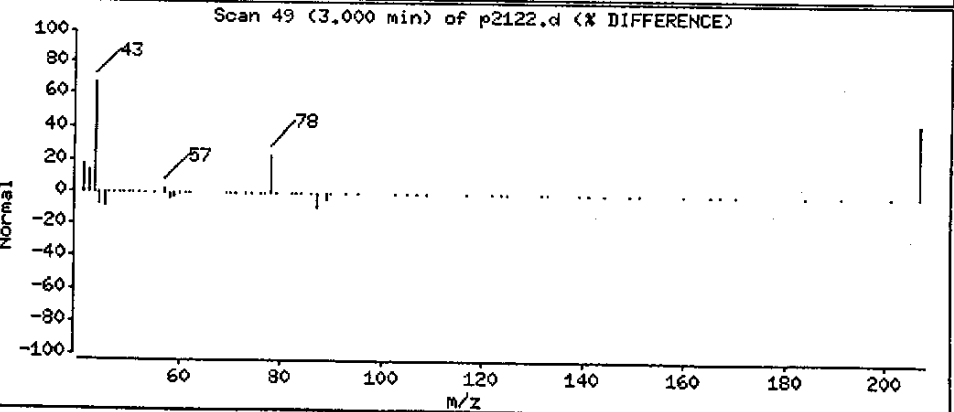
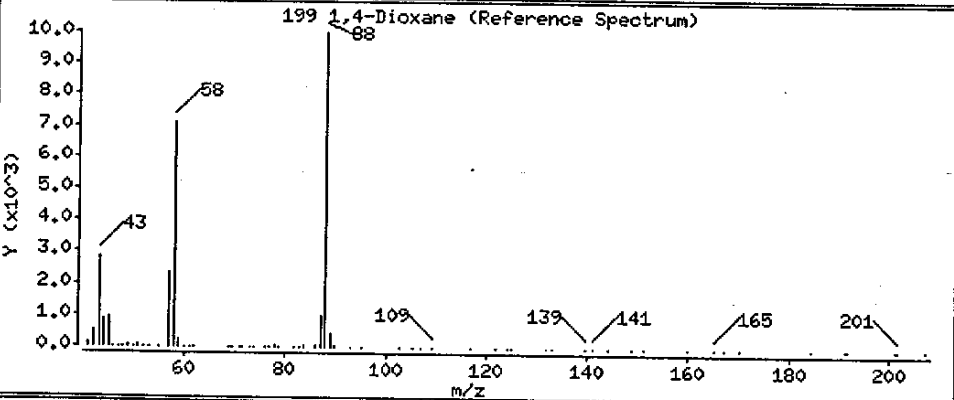
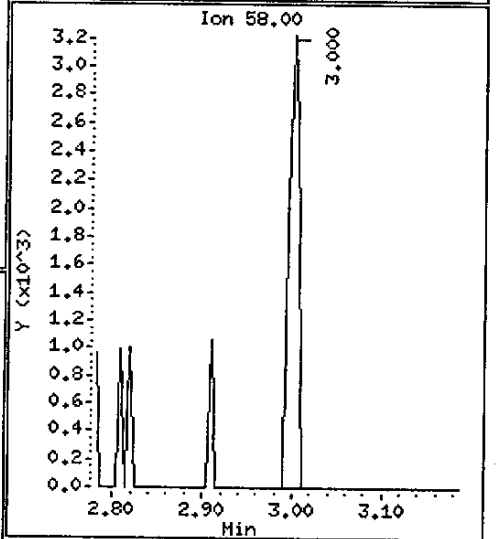
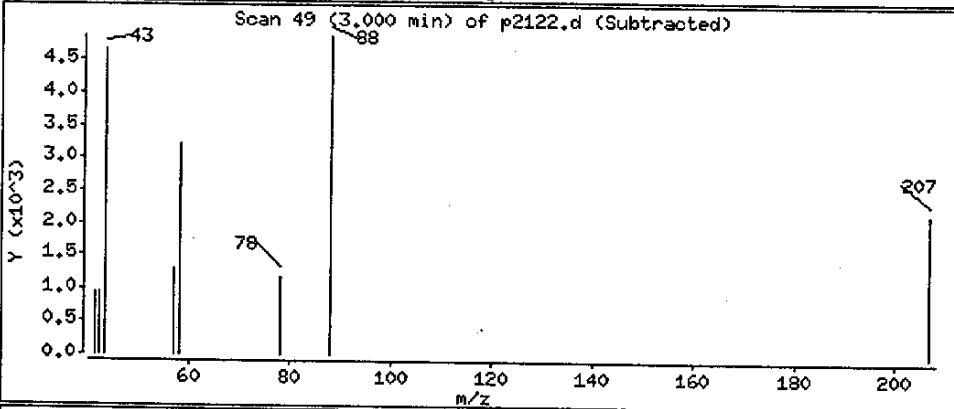
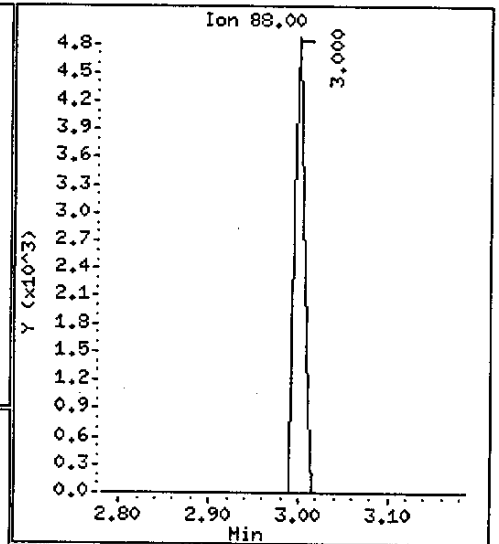
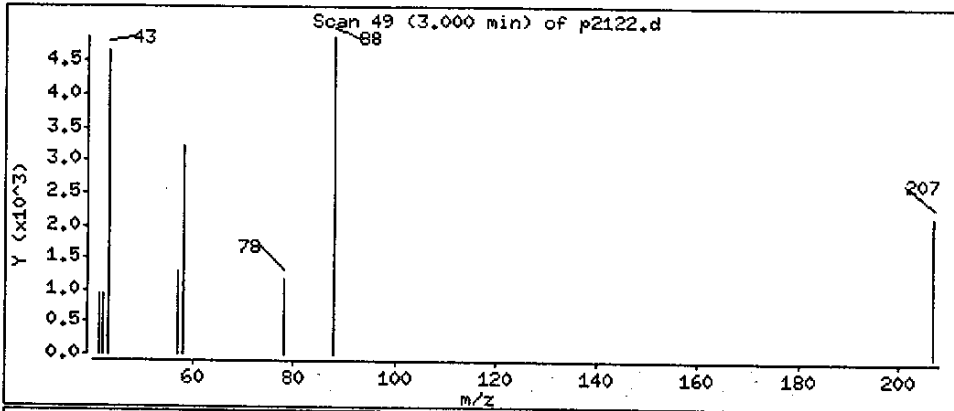
Operator: kidd

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

199 1,4-Dioxane

Concentration: 38.9936 ug/Kg



Date : 03-JUN-2004 10:18

Client ID: 01-SC-01

Instrument: P.i

Sample Info: GGTF41AD,,D4E210325-010

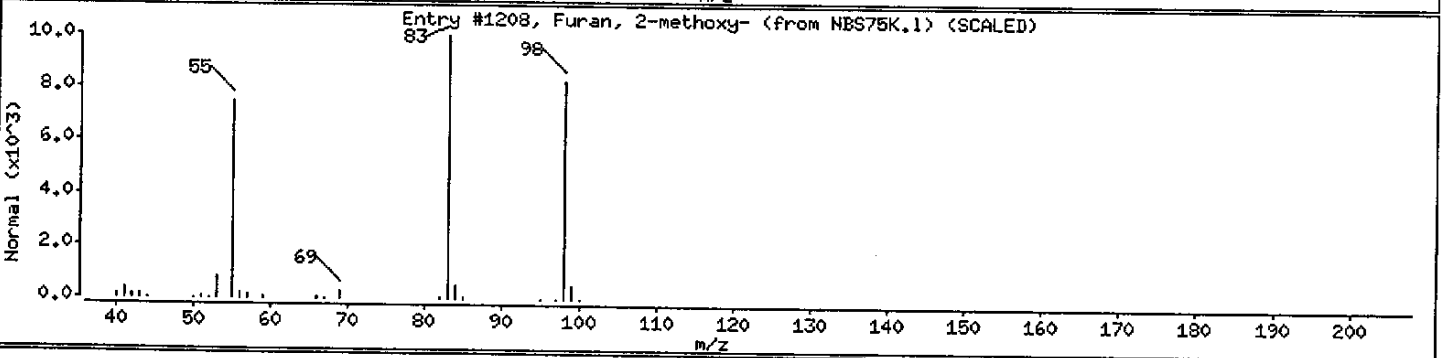
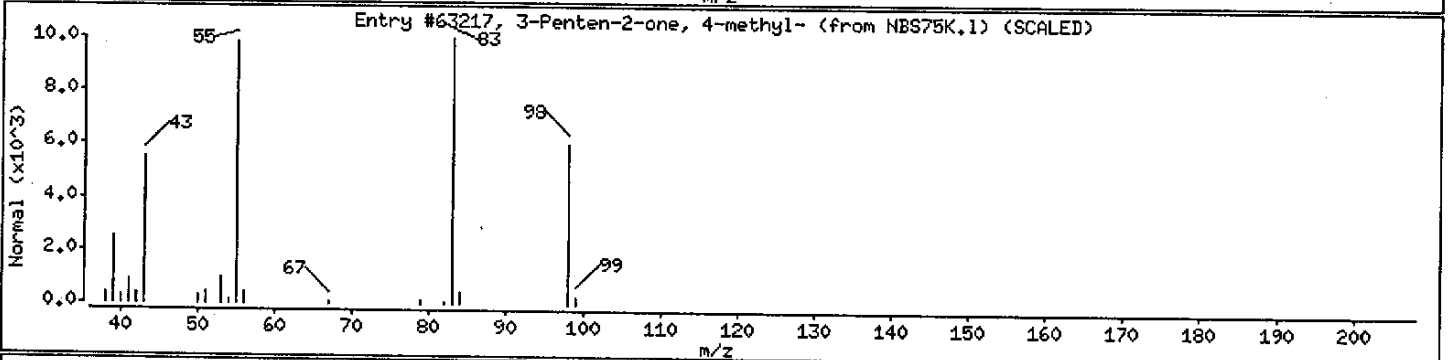
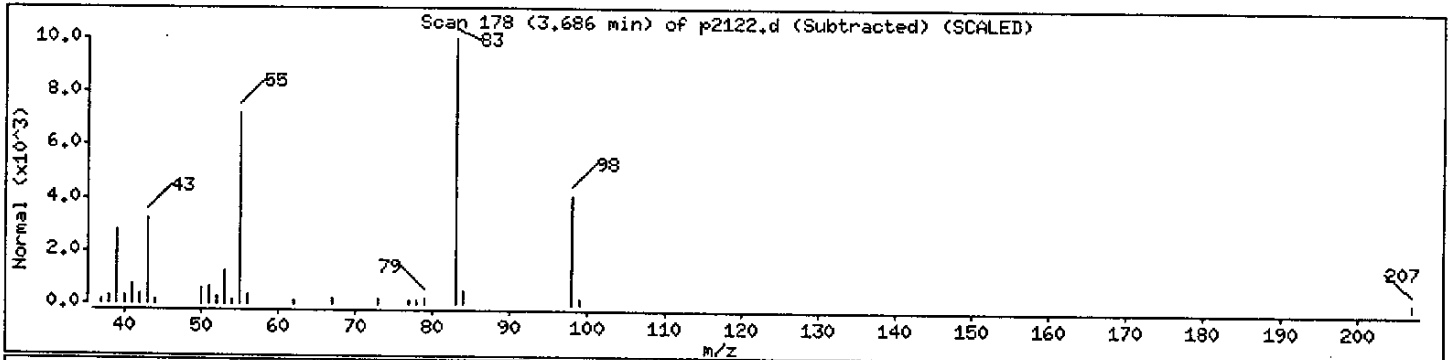
Volume Injected (uL): 0.5

Operator: kidd

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
3-Penten-2-one, 4-methyl-	141-79-7	NBS75K.1	63217	91	C6H10O	98
Furan, 2-methoxy-	25414-22-6	NBS75K.1	1208	83	C5H6O2	98



Date : 03-JUN-2004 10:18

Client ID: 01-SC-01

Instrument: P.i

Sample Info: GGTF41AD,,D4E210325-010

Volume Injected (uL): 0.5

Operator: kidd

Column phase: Rtx-5ms 30m 0.5um

Column diameter: 0.25

Library Search Compound Match

CAS Number

Library

Entry

Quality

Formula

Weight

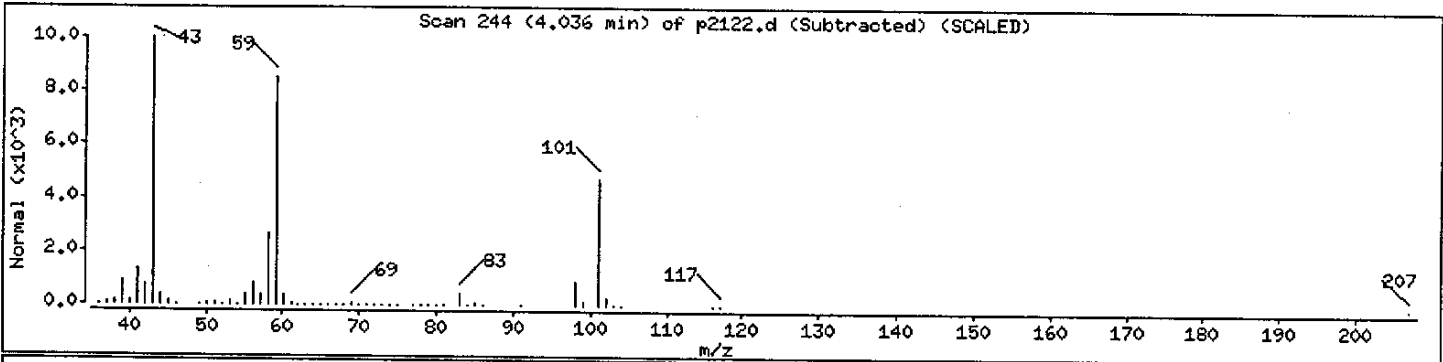
Unknown Aldol Condensate

Unknown

0

0

0



Liquid  
*Scintillation*  
*Carbon-14*

## LIQUID SCINTILLATION

### Data and Results Reports

Calibration Data  
*Monthly Quench Curve*

Batch Summary Sheets  
*Run Logs*

Raw Data  
*Prep Data Sheet(s)*  
*Instrument Printouts*  
*QC Acceptance Sheet(s)*  
*Certificate/Standard Sheets*





# STL

## Analysis Report for Carbon-14 by LSC

**Batch: 4155582**
**Operator: 400697**

 STL St. Louis  
 13715 Rider Trail North  
 Earth City, MO 63045

<u>Sample Information</u>		<u>Count Information</u>						<u>Results</u>		
<u>Sample ID</u>	<u>Aliquot</u>	<u>Instrument</u>	<u>SampEff</u>	<u>SampCPM</u>	<u>SampDPM</u>	<u>RunDateTime</u>	<u>Activity</u>	<u>UncTotal</u>	<u>MDA</u>	
<u>Work Order #</u>	<u>Vol Counted</u>	<u>Sigma</u>	<u>BkgEff</u>	<u>BkgCPM</u>	<u>BkgDPM</u>	<u>Run Duration</u>	<u>pCi/L</u>	<u>UncCount</u>	<u>DLC</u>	
D4E190262-001	97.9500 mL	LSC3170	0.8630	4.50	5.22	6/5/2004 4:37:45PM	-8.830E+000	-8.322E+000	1.435E+001	
GGJX41AE	10.0000 mL	2.00	0.8470	6.05	7.14	20	pCi/L	-8.275E+000	6.818E+000	
D4E190262-001X	106.2400 mL	LSC3170	0.8470	5.00	5.90	6/5/2004 4:59:07PM	-5.258E+000	-7.462E+000	1.348E+001	
GGJX41AG	10.0000 mL	2.00	0.8470	6.05	7.14	20	pCi/L	-7.444E+000	6.405E+000	
D4E190262-002	104.6800 mL	LSC3170	0.8530	4.35	5.10	6/5/2004 5:20:28PM	-8.778E+000	-7.499E+000	1.359E+001	
GGJX61AE	10.0000 mL	2.00	0.8470	6.05	7.14	20	pCi/L	-7.447E+000	6.455E+000	
D4E190262-004	97.9600 mL	LSC3170	0.8450	4.85	5.74	6/5/2004 5:41:50PM	-6.438E+000	-7.947E+000	1.465E+001	
GGJX91AE	10.0000 mL	2.00	0.8470	6.05	7.14	20	pCi/L	-7.921E+000	6.963E+000	
D4E210325-001	108.9800 mL	LSC3170	0.8450	5.25	6.21	6/5/2004 6:03:12PM	-3.844E+000	-7.234E+000	1.317E+001	
GGTEE1AE	10.0000 mL	2.00	0.8470	6.05	7.14	20	pCi/L	-7.223E+000	6.259E+000	
D4E210325-002	101.1300 mL	LSC3170	0.8800	4.16	4.73	6/5/2004 6:24:32PM	-1.073E+001	-8.187E+000	1.363E+001	
GGTE31AE	10.0000 mL	2.00	0.8470	6.05	7.14	20	pCi/L	-8.116E+000	6.476E+000	
D4E210325-003	100.3600 mL	LSC3170	0.8440	4.75	5.63	6/5/2004 6:45:55PM	-6.777E+000	-7.692E+000	1.432E+001	
GGTE61AE	10.0000 mL	2.00	0.8470	6.05	7.14	20	pCi/L	-7.662E+000	6.804E+000	
D4E210325-004	89.1500 mL	LSC3170	0.8540	5.50	6.44	6/5/2004 7:07:18PM	-3.537E+000	-9.780E+000	1.593E+001	
GGTE71AE	10.0000 mL	2.00	0.8470	6.05	7.14	20	pCi/L	-9.774E+000	7.570E+000	
D4E210325-005	105.5700 mL	LSC3170	0.8680	5.05	5.82	6/5/2004 7:28:39PM	-5.632E+000	-8.411E+000	1.324E+001	
GGTFE1AE	10.0000 mL	2.00	0.8470	6.05	7.14	20	pCi/L	-8.392E+000	6.290E+000	
D4E210325-006	108.1800 mL	LSC3170	0.8770	4.45	5.07	6/5/2004 7:50:07PM	-8.619E+000	-7.854E+000	1.279E+001	
GGTFH1AE	10.0000 mL	2.00	0.8470	6.05	7.14	20	pCi/L	-7.807E+000	6.075E+000	
D4E210325-008	103.3700 mL	LSC3170	0.8770	8.10	9.24	6/5/2004 8:11:29PM	9.151E+000	7.565E+000	1.338E+001	
GGTFX1AE	10.0000 mL	2.00	0.8470	6.05	7.14	20	pCi/L	7.510E+000	6.358E+000	
D4E210325-009	100.3000 mL	LSC3170	0.8500	5.85	6.88	6/5/2004 8:32:50PM	-1.168E+000	-9.008E+000	1.423E+001	
GGTF31AE	10.0000 mL	2.00	0.8470	6.05	7.14	20	pCi/L	-9.007E+000	6.760E+000	
F4F030000-582B	100.0000 mL	LSC3170	0.8670	4.50	5.18	6/5/2004 3:55:00PM	-8.829E+000	-8.321E+000	1.399E+001	
GHKVE1AA	10.0000 mL	2.00	0.8470	6.05	7.14	20	pCi/L	-8.274E+000	6.648E+000	
F4F030000-582C	100.0000 mL	LSC3170	0.8090	1416.95	1752.30	6/5/2004 4:16:21PM	7.861E+003	7.917E+002	1.499E+001	
GHKVE1AC	10.0000 mL	2.00	0.8470	6.05	7.14	20	pCi/L	9.399E+001	7.124E+000	

### Laboratory Control Sample Information

<u>Sample ID</u>	<u>WRKNO</u>	<u>Activity</u>	<u>StdAdded</u>	<u>Recovery</u>
F4F030000-582C	GHKVE1AC	7.861E+003 pCi/L	1.050E+004	74.85%

<u>Sample Information</u>		<u>Count Information</u>					<u>Results</u>		
<u>Sample ID</u>	<u>Aliquot</u>	<u>Instrument</u>	<u>SampEff</u>	<u>SampCPM</u>	<u>SampDPM</u>	<u>RunDateTime</u>	<u>Activity</u>	<u>UncTotal</u>	<u>MDA</u>
<u>Work Order #</u>	<u>Vol Counted</u>	<u>Sigma</u>	<u>BkgEff</u>	<u>BkgCPM</u>	<u>BkgDPM</u>	<u>Run Duration</u>		<u>UncCount</u>	<u>DLC</u>
<b>Sample Duplicate Information</b>									
<u>Sample ID</u>	<u>Sample Activity</u>	<u>Dup Sample ID</u>	<u>Dup Activity</u>	<u>RPD</u>	<u>RER</u>				
D4E190262-001	-8.830E+000 pCiL	D4E190262-001X	-5.258E+000 pCiL	50.71%	0.23				
<b>Matrix Spike Information</b>									
<u>SampID</u>	<u>SampMSID</u>	<u>Sample Activity</u>	<u>MS Activity</u>	<u>StdAdded</u>	<u>MSRecovery</u>				



# STL

## Analysis Report for Carbon-14 by LSC

**Batch:** 4161180

**Operator:** 400697

 STL St. Louis  
 13715 Rider Trail North  
 Earth City, MO 63045

<u>Sample Information</u>		<u>Count Information</u>					<u>Results</u>		
<u>Sample ID</u>	<u>Aliquot</u>	<u>Instrument</u>	<u>SampEff</u>	<u>SampCPM</u>	<u>SampDPM</u>	<u>RunDateTime</u>	<u>Activity</u>	<u>UncTotal</u>	<u>MDA</u>
<u>Work Order #</u>	<u>Vol Counted</u>	<u>Sigma</u>	<u>BkgEff</u>	<u>BkgCPM</u>	<u>BkgDPM</u>	<u>Run Duration</u>		<u>UncCount</u>	<u>DLC</u>
D4E210325-010	1.0300 g	LSC3170	0.8760	4.08	4.66	6/10/2004 9:14:23A	1.662E-001	6.666E-001	9.592E-001
GGTF41AG	10.0000 mL	2.00	0.8880	3.80	4.28	25	pCi/g	6.664E-001	4.528E-001
D4E210325-010X	0.9500 g	LSC3170	0.8760	5.01	5.72	6/10/2004 9:40:48A	6.828E-001	6.734E-001	1.040E+000
GGTF41AJ	10.0000 mL	2.00	0.8880	3.80	4.28	25	pCi/g	6.700E-001	4.909E-001
F4F090000-180B	1.0000 g	LSC3170	0.8440	4.36	5.17	6/10/2004 8:20:48A	4.009E-001	8.190E-001	1.025E+000
GHWAR1AA	10.0000 mL	2.00	0.8880	3.80	4.28	25	pCi/g	8.180E-001	4.841E-001
F4F090000-180C	1.0000 g	LSC3170	0.8790	1688.84	1921.78	6/10/2004 8:47:35A	8.637E+002	8.678E+001	9.846E-001
GHWAR1AC	10.0000 mL	2.00	0.8880	3.80	4.28	25	pCi/g	8.436E+000	4.648E-001

### Laboratory Control Sample Information

<u>Sample ID</u>	<u>WRKNO</u>	<u>Activity</u>	<u>StdAdded</u>	<u>Recovery</u>
F4F090000-180C	GHWAR1AC	8.637E+002 pCi/g	1.050E+003	82.24%

### Sample Duplicate Information

<u>Sample ID</u>	<u>Sample Activity</u>	<u>Dup Sample ID</u>	<u>Dup Activity</u>	<u>RPD</u>	<u>RER</u>
D4E210325-010	1.662E-001 pCi/g	D4E210325-010X	6.828E-001 pCi/g	121.70%	0.39

### Matrix Spike Information

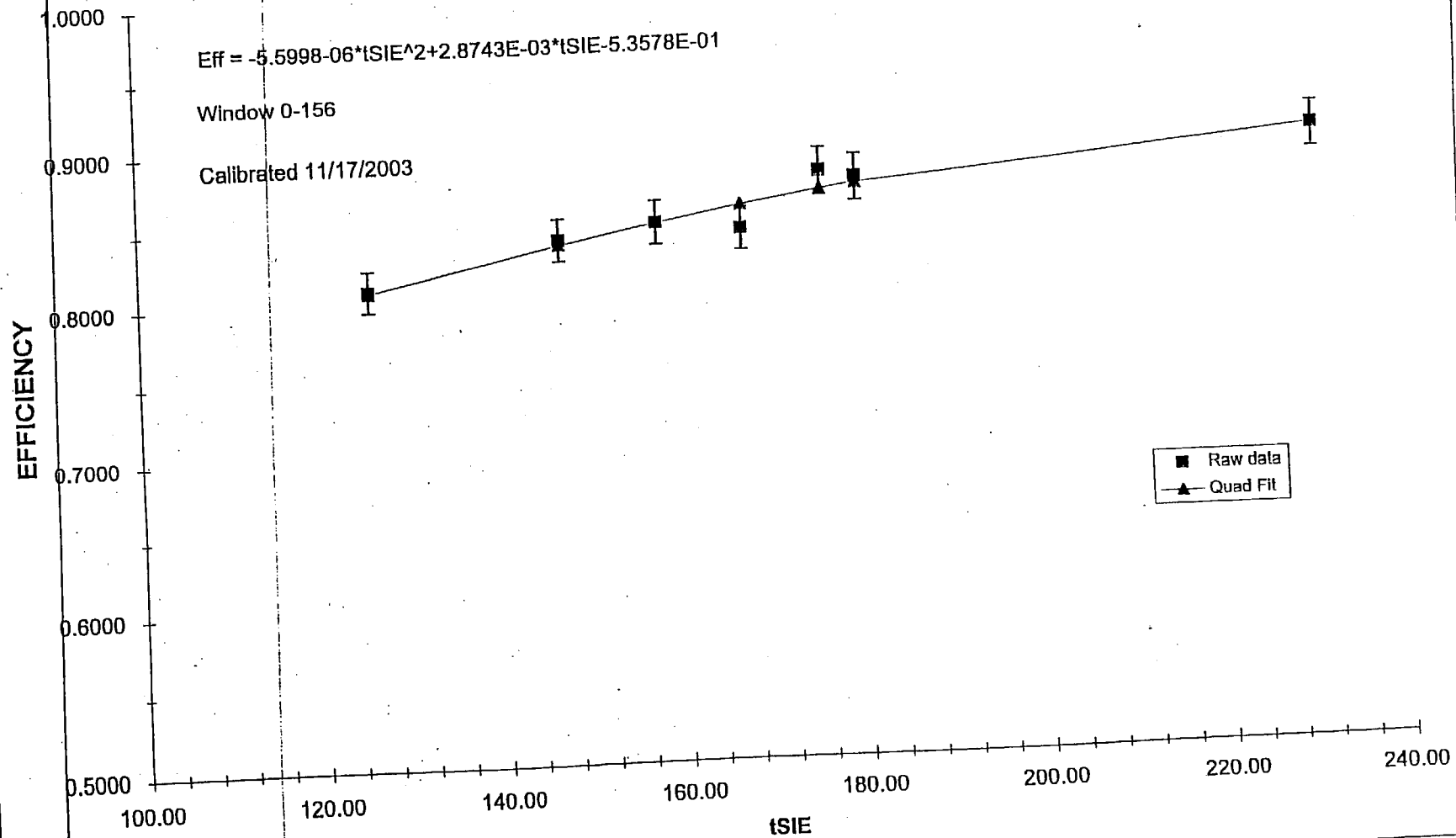
<u>SampID</u>	<u>SampMSID</u>	<u>Sample Activity</u>	<u>MS Activity</u>	<u>StdAdded</u>	<u>MSRecovery</u>
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**SEVERN**  
**TRENT**

**STL**

**C14 QUENCH CURVE**  
**LSC 3170**

### C-14 in Carbosorb E/Permafluor E Packard 3170



C-14 Calibration of Packard 3170  
 C14CAL 17Nov03 3170.XLS  
 Count Date: 11/17/2003

Spike: 2332 dpm/mL  
 Ref Date: 8/7/02  
 C-14 Half Life: 5736

ID	STD VOL (mL)	C-14 DPM	CPMA (0-18.6)	tSIE	C-14 EFF1	NitroMethane (uL)
C14-1	1.0	2332	1886	125.47	0.8089	1 mL
C14-2	1.0	2332	1958	146.67	0.8398	0.5 mL
C14-3	1.0	2332	1980	157.44	0.8492	.1 mL
C14-4	1.0	2332	1966	166.88	0.8432	0
C14-5	1.0	2332	2049	175.66	0.8788	low CO2
C14-6	1.0	2332	2039	179.53	0.8745	med CO2
C14-7	1.0	2332	2098	230.10	0.8998	high CO2

ID	tSIE	tSIE^2	tSIE^3	C-14 EFF1	LnEFF1	Quad Fit	QuadExp Fit	Poly Fit
C14-1	125.47	15743	1975239	0.8089	-0.2121	0.8078	0.8080	0.8098
C14-2	146.67	21512	3155178	0.8398	-0.1746	0.8364	0.8362	0.8335
C14-3	157.44	24787	3902521	0.8492	-0.1635	0.8490	0.8488	0.8469
C14-4	166.88	27849	4647430	0.8432	-0.1706	0.8590	0.8589	0.8586
C14-5	175.66	30856	5420241	0.8788	-0.1292	0.8674	0.8674	0.8690
C14-6	179.53	32231	5786435	0.8745	-0.1341	0.8708	0.8709	0.8733
C14-7	230.10	52946	12182877	0.8998	-0.1056	0.9002	0.9001	0.8995

**Quadratic Exponential Fit -**  
 Regression Output:  
 Multiple R: 0.96300  
 R Square: 0.92736  
 Adjusted R Square: 0.89105  
 Standard Error: 0.01167  
 Observations: 7.00000

	Coefficients	Standard Error
Intercept	-5.4436E-01	1.2357E-01
x1	3.5232E-03	1.4002E-03
x2	-7.0062E-06	3.8779E-06

**Quadratic Fit -**  
 Regression Output:  
 Multiple R: 0.96237  
 R Square: 0.92616  
 Adjusted R Square: 0.88924  
 Standard Error: 0.01005  
 Observations: 7.00000

	Coefficients	Standard Error
Intercept	5.3578E-01	1.0643E-01
x1	2.8743E-03	1.2059E-03
x2	-5.5998E-06	3.3399E-06

**Polynomial Fit -**  
 Regression Output:  
 Multiple R: 0.96489  
 R Square: 0.93100  
 Adjusted R Square: 0.86201  
 Standard Error: 0.01122  
 Observations: 7.00000

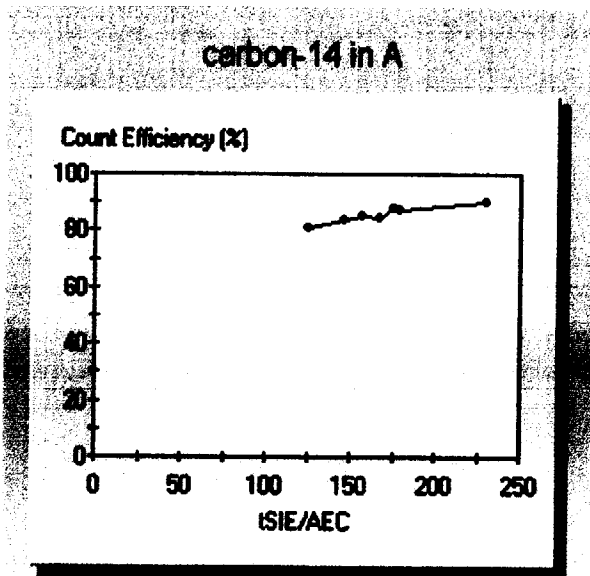
	Coefficients	Standard Error
Intercept	1.0194E+00	1.0609E+00
x1	-5.8188E-03	1.8996E-02
x2	4.5152E-05	1.1068E-04
x3	-9.6127E-08	2.0952E-07

*The quadratic fit is chosen for its low coefficient errors and R squared value.*

Matrix is 10 mL Carbosorb E + 10 mL Permafluor E

C-14 standard is 03-008, 23319.5 dpm/mL on 8/7/2002.

Cycle 1 Results  
Quench Curve Block Data



Date Acquired: 11/17/2003  
Date Modified: 11/20/2003  
carbon-14 in A

tSIE/AEC	Count Efficiency (%)
230.10	89.94
179.53	87.39
175.66	87.83
166.88	84.25
157.44	84.87
146.67	83.92
125.47	80.82

PID	S#	SMPL_ID	C.T.	CPMA	DPM1	TIME	DATE	EFF	tSIE	LUM	CPMC	NOTE
8	1	BKG	25	3.80	4.28	7:53:58 AM	6/10/04	0.888	207	62	5	
8	2	F4F090000-180B	25	4.36	5.17	8:20:48 AM	6/10/04	0.844	165	20	7	
8	3	F4F090000-180C	25	1688.84	1921.78	8:47:35 AM	6/10/04	0.879	189	0	1691	

6/10/04 10:06:27 AM

QuantaSmart (TM) - 1.31 - Serial# 429670

Page # 2

Protocol# 17 - C-14 Samples 17.lsa

User: Chemist

8	4	D4E210325-010	25	4.08	4.66	9:14:23 AM	6/10/04	0.876	183	12	7
8	5	D4E210325-010X	25	5.01	5.72	9:40:48 AM	6/10/04	0.876	178	10	7

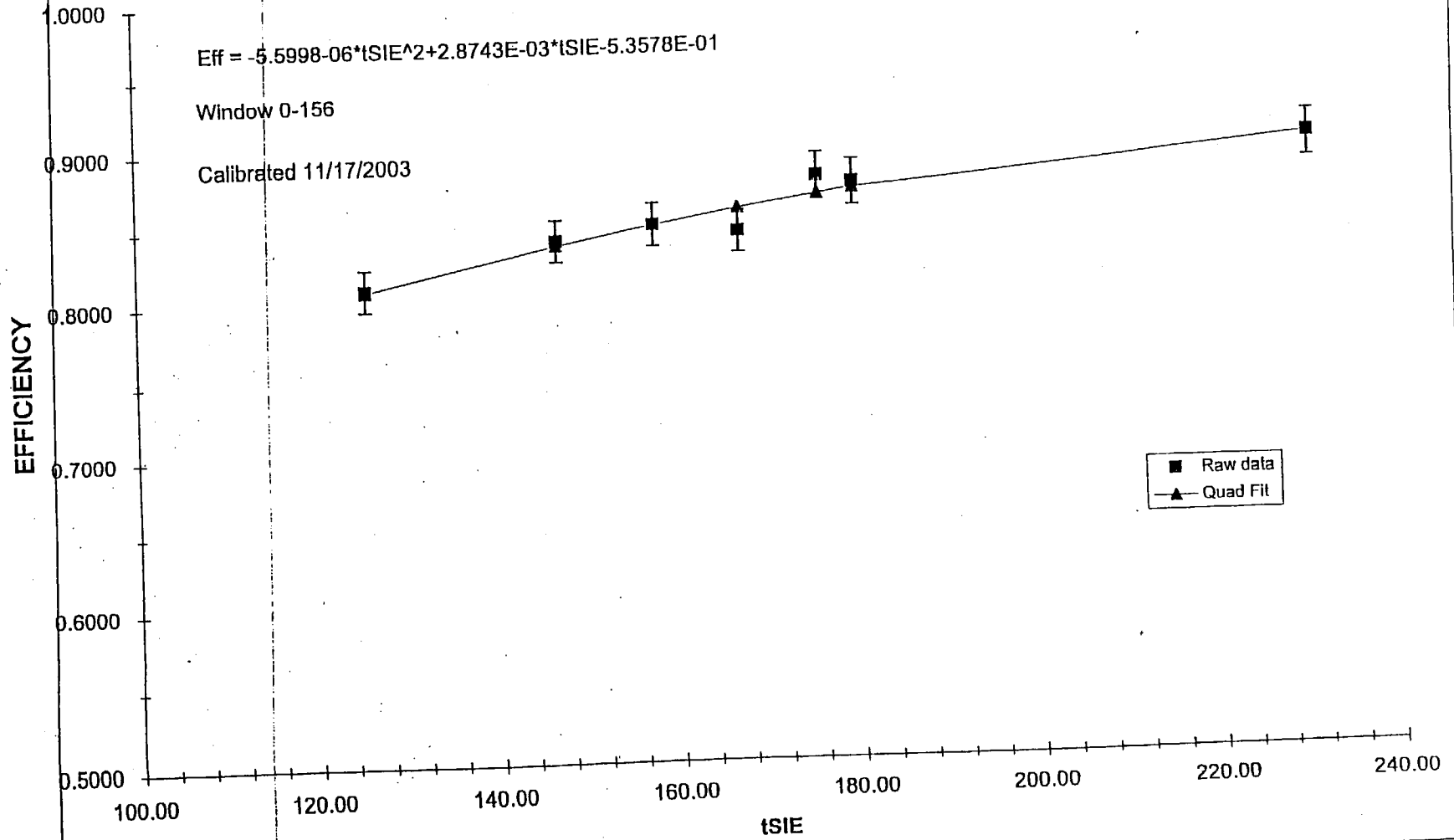


**SEVERN**  
**TRENT**

**STL**

**C14 QUENCH CURVE**  
**LSC 3170**

### C-14 in Carbosorb E/Permafluor E Packard 3170



C-14 Calibration of Packard 3170  
 C14CAL 17Nov03 3170.XLS  
 Count Date: 11/17/2003

Spike: 2332 dpm/mL  
 Ref Date: 8/7/02  
 C-14 Half Life: 5736

ID	STD VOL (mL)	C-14 DPM	CPMA (0-18.6)	tSIE	C-14 EFF1	NitroMethane (uL)
C14-1	1.0	2332	1886	125.47	0.8089	1 mL
C14-2	1.0	2332	1958	146.67	0.8398	0.5 mL
C14-3	1.0	2332	1980	157.44	0.8492	.1 mL
C14-4	1.0	2332	1966	166.88	0.8432	0
C14-5	1.0	2332	2049	175.66	0.8788	low CO2
C14-6	1.0	2332	2039	179.53	0.8745	med CO2
C14-7	1.0	2332	2098	230.10	0.8998	high CO2

ID	tSIE	tSIE^2	tSIE^3	C-14 EFF1	LnEFF1	Quad Fit	QuadExp Fit	Poly Fit
C14-1	125.47	15743	1975239	0.8089	-0.2121	0.8078	0.8080	0.8098
C14-2	146.67	21512	3155178	0.8398	-0.1746	0.8364	0.8362	0.8335
C14-3	157.44	24787	3902521	0.8492	-0.1635	0.8490	0.8488	0.8469
C14-4	166.88	27849	4647430	0.8432	-0.1706	0.8590	0.8589	0.8586
C14-5	175.66	30856	5420241	0.8788	-0.1292	0.8674	0.8674	0.8690
C14-6	179.53	32231	5786435	0.8745	-0.1341	0.8708	0.8709	0.8733
C14-7	230.10	52946	12182677	0.8998	-0.1056	0.9002	0.9001	0.8995

**Quadratic Exponential Fit -**  
 Regression Output:

Multiple R	0.96300
R Square	0.92736
Adjusted R Square	0.89105
Standard Error	0.01167
Observations	7.00000

**Quadratic Fit -**  
 Regression Output:

Multiple R	0.96237
R Square	0.92616
Adjusted R Square	0.88924
Standard Error	0.01005
Observations	7.00000

	Coefficients	Standard Error
Intercept	-5.4436E-01	1.2357E-01
x1	3.5232E-03	1.4002E-03
x2	-7.0062E-06	3.8779E-06

	Coefficients	Standard Error
Intercept	5.3578E-01	1.0643E-01
x1	2.8743E-03	1.2059E-03
x2	-5.5998E-06	3.3399E-06

**Polynomial Fit -**  
 Regression Output:

Multiple R	0.96489
R Square	0.93100
Adjusted R Square	0.86201
Standard Error	0.01122
Observations	7.00000

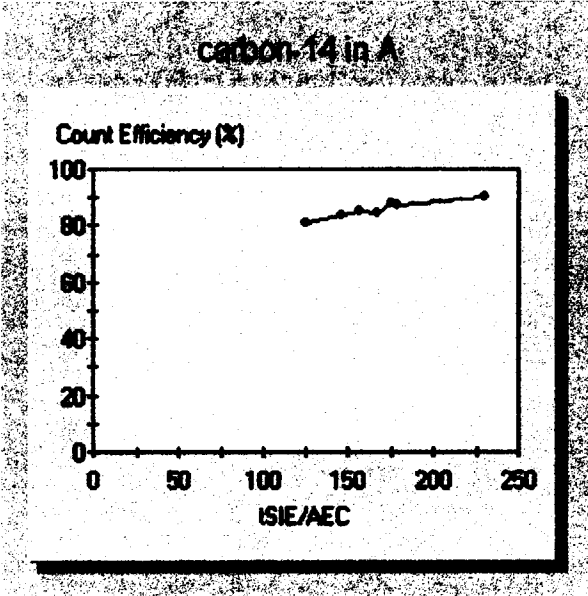
	Coefficients	Standard Error
Intercept	1.0194E+00	1.0609E+00
x1	-5.8188E-03	1.8996E-02
x2	4.5152E-05	1.1068E-04
x3	-9.6127E-08	2.0952E-07

**Matrix is 10 mL Carbosorb E + 10 mL Permafluor E**

**C-14 standard is 03-008, 23319.5 dpm/mL on 8/7/2002.**

*The quadratic fit is chosen for its low coefficient errors and R squared value.*

Cycle 1 Results  
 Quench Curve Block Data



Date Acquired: 11/17/2003  
 Date Modified: 11/20/2003  
 carbon-14 in A

tSIE/AEC	Count Efficiency (%)
230.10	89.94
179.53	87.39
175.66	87.83
166.88	84.25
157.44	84.87
146.67	83.92
125.47	80.82

PID	S#	SMPL_ID	C.T.	CPMA	DPM1	TIME	DATE	EFF	tSIE	LUM	CPMC	NOTE
13	1	BKG	20	6.05	7.14	3:33:20 PM	6/5/04	0.847	160	15	8	
13	2	F4F030000-582B	20	4.50	5.18	3:55:00 PM	6/5/04	0.867	173	13	7	
13	3	F4F030000-582C	20	1416.95	1752.30	4:16:21 PM	6/5/04	0.809	126	0	1419	

Protocol# 17 - C-14 Samples 17.lsa

User: Chemist

13	4	D4E190262-001	20	4.50	5.22	4:37:45 PM	6/5/04	0.863	172	13	6
13	5	D4E190262-001X	20	5.00	5.90	4:59:07 PM	6/5/04	0.847	160	10	8
13	6	D4E190262-002	20	4.35	5.10	5:20:28 PM	6/5/04	0.853	169	13	6
13	7	D4E190262-004	20	4.85	5.74	5:41:50 PM	6/5/04	0.845	164	12	7
13	8	D4E210325-001	20	5.25	6.21	6:03:12 PM	6/5/04	0.845	163	11	7
13	9	D4E210325-002	20	4.16	4.73	6:24:32 PM	6/5/04	0.880	192	12	6
13	10	D4E210325-003	20	4.75	5.63	6:45:55 PM	6/5/04	0.844	165	12	7
13	11	D4E210325-004	20	5.50	6.44	7:07:18 PM	6/5/04	0.854	170	10	9
13	12	D4E210325-005	20	5.05	5.82	7:28:39 PM	6/5/04	0.868	173	11	7
5	13	D4E210325-006	20	4.45	5.07	7:50:07 PM	6/5/04	0.877	176	13	6
5	14	D4E210325-008	20	8.10	9.24	8:11:29 PM	6/5/04	0.877	177	8	11
5	15	D4E210325-009	20	5.85	6.88	8:32:50 PM	6/5/04	0.850	169	8	11



**STL**

**RUN LOG**

STL  
St. Louis Laboratory

Liquid Scintillation Counter Runlog

Date	Batch #	Sample #	Protocol	Position	Count Time	Analysis	Initials
6-9-9	4160081	F4F080000-081B	22	2	15Min.	H3	↖
		-081C		3			
		F4F050148-002		4			
		-003		5			
		-004		6			
		-005		7			
		-006		8			
		-007		9			
		-007D		10			
		-007S		11			
		-008		12			
		-009		13			
		-010		14			
		-011		15			
		-012		16			
6-10-9	Daily	Bkg Source			60min. Bkg	QA	↖
6-10-9	4160167	Bkg	23	1	45Min	H3	↖
		F4F080000-167B		2			
		-167C		3			
		F4E280217-018		4			
		-018X		5			
		-019		6			
		-019S		7			
		-020		8			
		-021		9			
		-022		10			
		-023		11			
		-024		12			

Reviewed By: [Signature] Date: 6-8-9

Form: SL-RAD-0027, revised 7/16/03; SOP Reference: STL-RD-0302, current revision  
 QC Type Suffixes: B=Blank; C=Laboratory Control Sample; L=Laboratory Control Sample Duplicate; S=Matrix Spike; D=Matrix Spike Duplicate; X=Sample Duplicate. 63

STL Denver see A69 for batches counted first.

STL  
St. Louis Laboratory

Liquid Scintillation Counter Runlog

Date	Batch #	Sample #	Protocol	Position	Count Time	Analysis	Initials
6-10-9	4160167	F4E280217-025	23	13	45 min	H3	—
		-026		14			
		-027		15			
		-028		16			
6-10-9	4160168	Bkg	24	1	45 min	H3	—
		F4E080000-168B		2			
		-168C		3			
		F4E090207-001		4			
		-004		5			
		-002		6			
		-003		7			
		-004		8			
		-005		9			
		-006		10			
		-007		11			
		-008		12			
		-009		13			
		-010		14			
6-10-9	4160269	Bkg	4	1	30 min	Ni-59.63	—
		F4E080000-269B		2			
		-269C		3			
		D4E210325-010		4			
		-010X		5			
6-10-9	4161180	Bkg	17	1	25 min	C19	—
		F4E090000-180B		2			
		-180C		3			
		D4E210325-010		4			
		-010X		5			

Reviewed By: [Signature] Date: 6-10-9

Form: SL-RAD-0027, revised 7/16/03; SOP Reference: STL-RD-0302, current revision  
 QC Type Suffixes: B=Blank; C=Laboratory Control Sample; L=Laboratory Control Sample Duplicate; S=Matrix Spike; D=Matrix Spike Duplicate; X=Sample Duplicate.

STL Denver Batches 4160269 & 4161180 counted first 6-10-9





**STL**

**RUN LOG**

STL  
St. Louis Laboratory

Liquid Scintillation Counter Runlog

Date	Batch #	Sample #	Protocol	Position	Count Time	Analysis	Initials
6-3-9	415415	Bkg	25	1	15 min	Hz	-
		F4F020000-15B		2			
		-15G		3			
		F4E210103-001		4			
		-002		5			
		-0020		6			
		-002S		7			
		F4E210104-001		8			
		-002		9			
		-003		10			
		F4E210282-001		11			
		-002		12			
		-003		13			
		-004		14			
		-005		15			
		-006		16			
		F4E210292-001		17			
		-002		18			
		-003		19			
		-004		20			
		F4E210297-001		21			
		-002		22			
6-4-4	Dant Bkg & Source		-	-	60 min BKF	RA	-
6/4/04	4154153	Bkgd	5	1	30 min	RE Ni	RR
		F4F020000-153B		2		LIHON RE	
		-153C		3			
		DAE190242-001		4			
		-002		5			

Reviewed By: RR Date: 6/4/04

Form: SL-RAD-0027, revised 7/16/03; SOP Reference: STL-RD-0302, current revision  
 QC Type Suffixes: B=Blank; C=Laboratory Control Sample; L=Laboratory Control Sample Duplicate; S=Matrix Spike; D=Matrix Spike Duplicate; X=Sample Duplicate. 55

STL  
St. Louis Laboratory

Liquid Scintillation Counter Runlog

Date	Batch #	Sample #	Protocol	Position	Count Time	Analysis	Initials
6/4	413A153	DAE190202-003	5	6	30min	Ni	RR
		-004		7			
		-005		8			
		DAE210325-001		9			
		-001S		10			
		-001D		11			
		-002		12			
		-003		13			
		-004		14			
		-005		15			
		-006		16			
		-008		17			
		-009		18			
6/4/04	4155125	Bked	22	1	20min	H3	RR
		F4P030000-125B		2			
		1 -125C		3			
		F4E250252-001		4			
		-002		5			
		-003		6			
		-004		7			
		F4E250272-001		8			
		1 -002		9			
		F4E250305-001		10			
		-002		11			
		-003		12			
		-004		13			
		F4E2100317-001		14			
		-001S		15			

Reviewed By: RR Date: 6/4/04

Form: SL-RAD-0027, revised 7/16/03; SOP Reference: STL-RD-0302, current revision  
 QC Type Suffixes: B=Blank; C=Laboratory Control Sample; L=Laboratory Control Sample Duplicate; S=Matrix Spike; D=Matrix Spike Duplicate; X=Sample Duplicate.

STL  
St. Louis Laboratory

Liquid Scintillation Counter Runlog

Date	Batch #	Sample #	Protocol	Position	Count Time	Analysis	Initials
6/4	A155725	FAE260317-002	22	16	30min	H3	PK
		-003					
		-004					
		-005					
		-006					
		-007					
	A155582	BKcd	17	1	20	C14	
		FA1030000-582B		2			
		↓ -582C		3			
		DAE190262-001		4			
		-001X		5			
		-002		6			
		-004		7			
		NAE210825-001		8			
		-002		9			
		-003		10			
		-004		11			
		-005		12			
		-006		13			
		-008		14			
		-009		15			
	A156143	BKcd	21	1	15min	H3	
		FA1030000-143B		2			
		↓ -143C		3			
		FAE180110-001		4			
		-0015		5			
		-001X		6			

Reviewed By: RR Date: 6/4/04

Form: SL-RAD-0027, revised 7/16/03; SOP Reference: STL-RD-0302, current revision  
 QC Type Suffixes: B=Blank; C=Laboratory Control Sample; L=Laboratory Control Sample Duplicate; S=Matrix Spike; D=Matrix Spike Duplicate; X=Sample Duplicate. 57



# STL

### Prep Report Carbon-14 by LSC

STL St. Louis  
13715 Rider Trail North  
Earth City, MO 63045

Batch: 4155582

Prep Analyst: 401253

SampID	WRKNO	Aliquot	Volume Counted
D4E190262-001	GGJX41AE	97.9500 mL	10.0000 mL
D4E190262-001X	GGJX41AG	106.2400 mL	10.0000 mL
D4E190262-002	GGJX61AE	104.6800 mL	10.0000 mL
D4E190262-004	GGJX91AE	97.9600 mL	10.0000 mL
D4E210325-001	GGTEE1AE	108.9800 mL	10.0000 mL
D4E210325-002	GGTE31AE	101.1300 mL	10.0000 mL
D4E210325-003	GGTE61AE	100.3600 mL	10.0000 mL
D4E210325-004	GGTE71AE	89.1500 mL	10.0000 mL
D4E210325-005	GGTFE1AE	105.5700 mL	10.0000 mL
D4E210325-006	GGTFH1AE	108.1800 mL	10.0000 mL
D4E210325-008	GGTFX1AE	103.3700 mL	10.0000 mL
D4E210325-009	GGTF31AE	100.3000 mL	10.0000 mL
F4F030000-582B	GHKVE1AA	100.0000 mL	10.0000 mL
F4F030000-582C	GHKVE1AC	100 mL	10.0000 mL

### Spike Information

Sample ID	Standard ID	Analyte	Std Conc	Aliquot	Ref Date	Std Added
F4F030000-582C	03-008	C-14	2.332E+004 dpm/mL	0.10 mL	1/1/2003 12:00:00AM	pCi/L
<i>BA</i> Spiked By		<i>AE</i> Spike Verified By		<i>6/13/04</i> Spike Date		

### Standard Operating Procedures

SOP Number	Title	Revision
<input checked="" type="checkbox"/> C-14		

6/4/2004 12:17:55PM

Page 1 of 2


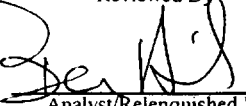
*Prot #17*  
*3120, 20min.*

SampID

WRKNO

Aliquot

Volume Counted

  
Reviewed By  
  
Analyst/Relinquished By

6-6-7  
Review Date  
6/8/04  
Release Date

RR  
Received By

6-7-4  
Receipt Date

6/10



# STL

### Prep Report Carbon-14 by LSC

STL St. Louis  
13715 Rider Trail North  
Earth City, MO 63045

Batch: 4161180

Prep Analyst: 401253

SampID	WRKNO	Aliquot	Volume Counted
D4E210325-010	GGTF41AG	1.0300 g	10.0000 mL
D4E210325-010X	GGTF41AJ	0.9500 g	10.0000 mL
F4F090000-180B	GHWAR1AA	1.0000 g	10.0000 mL
F4F090000-180C	GHWAR1AC	1 g	10.0000 mL

### Spike Information

Sample ID	Standard ID	Analyte	Std Conc	Aliquot	Ref Date	Std Added
F4F090000-180C	03-008	C-14	2.332E+004 dpm/mL	0.10 mL	1/1/2003 12:00:00AM	pCi/g
				6/9/04		
Spiked By		Spike Verified By		Spike Date		

### Standard Operating Procedures

SOP Number	Title	Revision
<input checked="" type="checkbox"/> C-14		
	6-10-4	
Reviewed By	Review Date	
	6/9/04	
Analyst/Relinquished By	Release Date	
	6-9-4	
Received By	Receipt Date	

3120  
Protocol L7  
25 min

**SEVERN**  
**TRENT**

**STL**

## Instrument Checks



## SNC Protocol

## Calibration Information

Software Version IC: 2.11

Software Version EC: 1.31

Instrument Model: Tri-Carb 3170TR/SL

Instrument Serial Number: 429670

3H Chi Square: 27.55 Date Processed: 2/27/04 1:05:43 PM

14C Chi Square: 22.31 Date Processed: 2/27/04 1:05:43 PM

3H E<sup>2</sup>/B (1-18.6 keV): 1550.43 Date Processed: 6/3/04 3:46:47 AM14C E<sup>2</sup>/B (4-156 keV): 7666.22 Date Processed: 6/3/04 3:46:47 AM

3H Efficiency (0-18.6 keV): 63.17 Date Processed: 6/3/04 3:46:47 AM

14C Efficiency (0-156 keV): 95.78 Date Processed: 6/3/04 3:46:47 AM

IPA Background Date Processed: 6/3/04 3:46:47 AM

3H Background CPM (0-18.6 keV): 2.81 Date Processed: 6/3/04 3:46:47 AM

14C Background CPM (0-156 keV): 3.06 Date Processed: 6/3/04 3:46:47 AM

3H Calibration DPM: 280500

3H Reference Date: 6/4/02

14C Calibration DPM: 120600

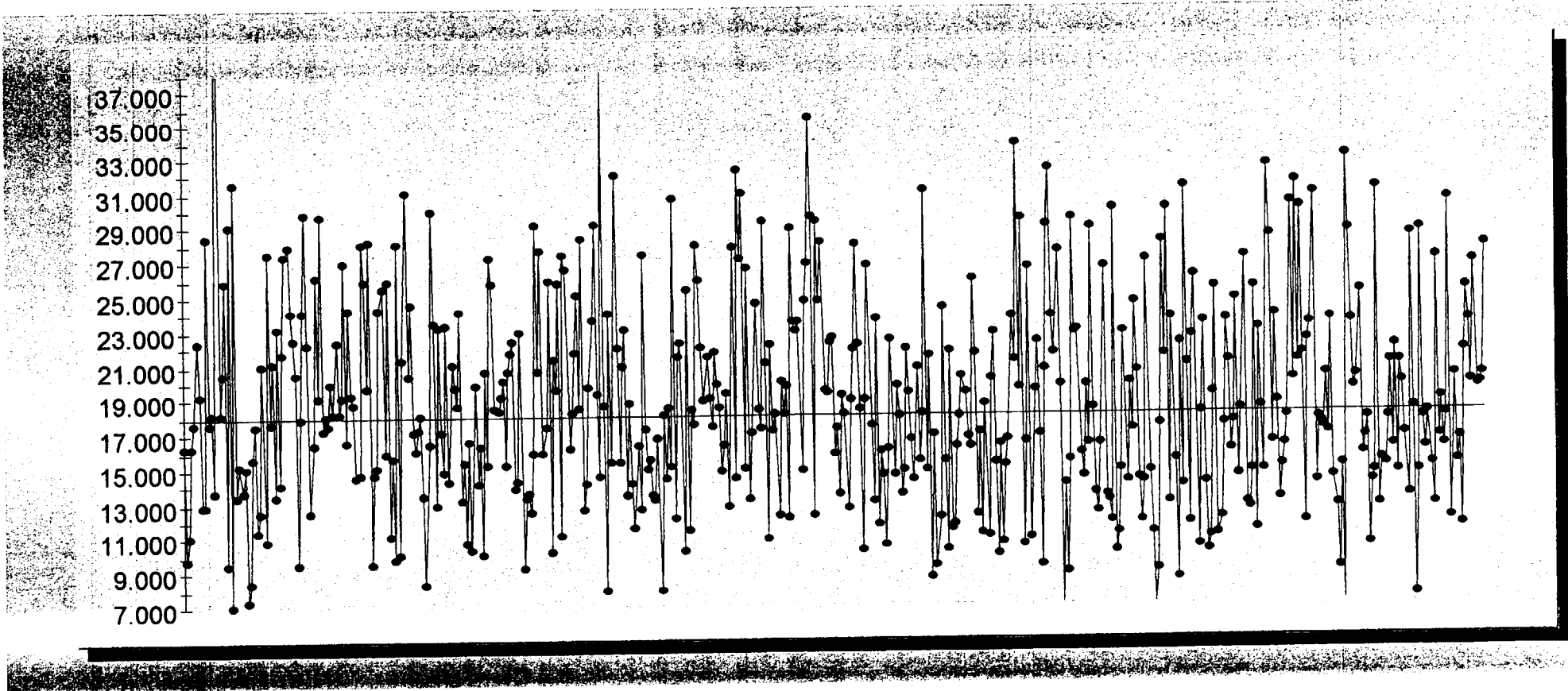
**LSC Instrument Check**

**3170**

**6/6/04**

STL  
Dev  
N  
Mean  
SD

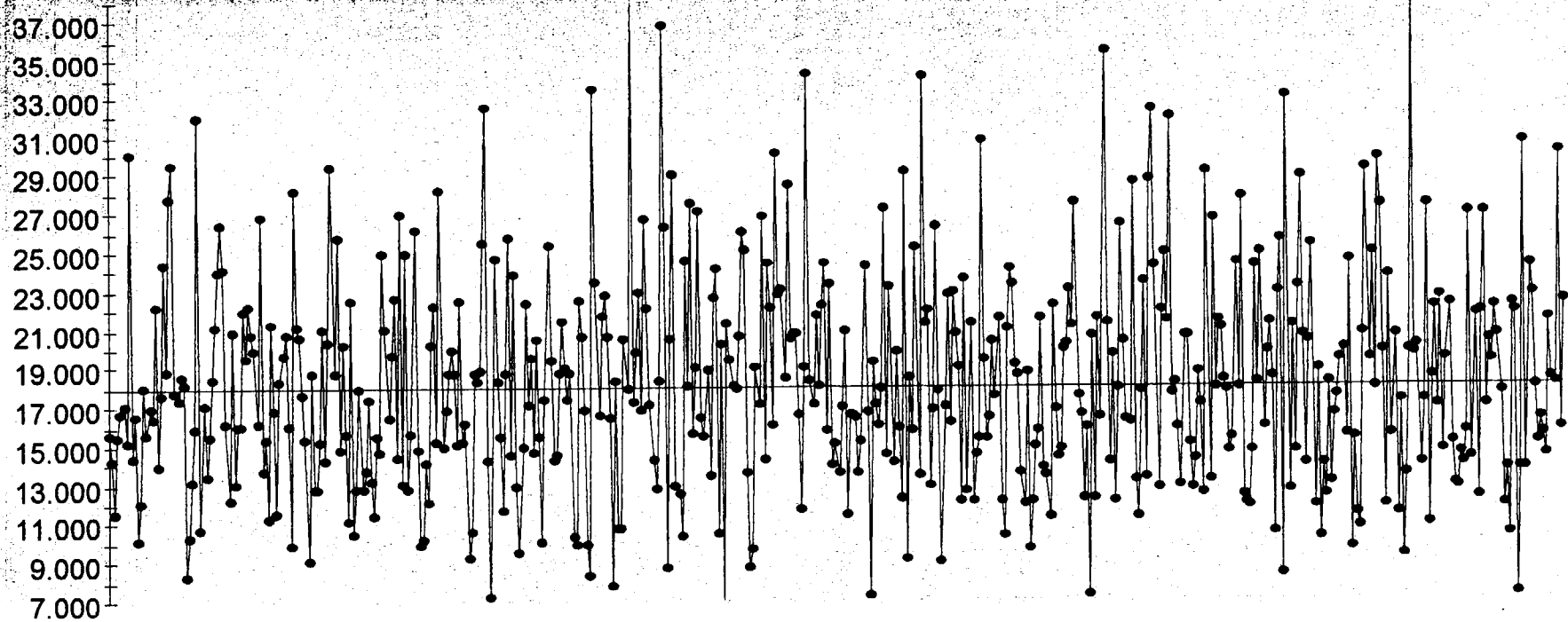
Chi Square  
Total # pts : 510  
Valid # pts : 510  
Mean : 18.72  
SD : 6.17



STL  
Dem  
Sec

4C Chi Square

Total # pts : 511  
Valid # pts : 511  
Mean : 18.17  
SD : 5.67

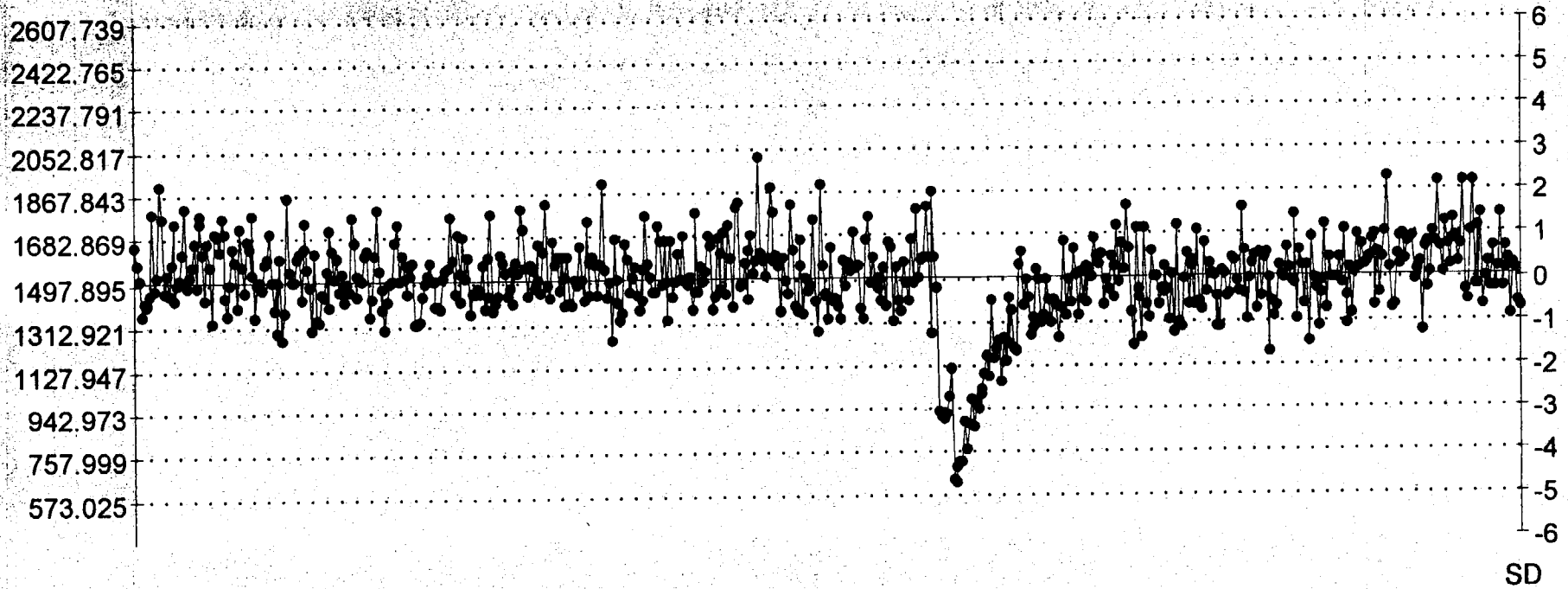


STL

De

SH E^2/B

Total # pts : 607  
Valid # pts : 607  
Mean : 1497.90  
SD : 184.97  
E^2/B Threshold : 180



STL

Dev

Res

SD

E^2/B

Threshold

Mean

SD

Total # pts

Valid # pts

Mean

SD

E^2/B Threshold

380

6264.44

778.34

380

380

380

380

380

380

380

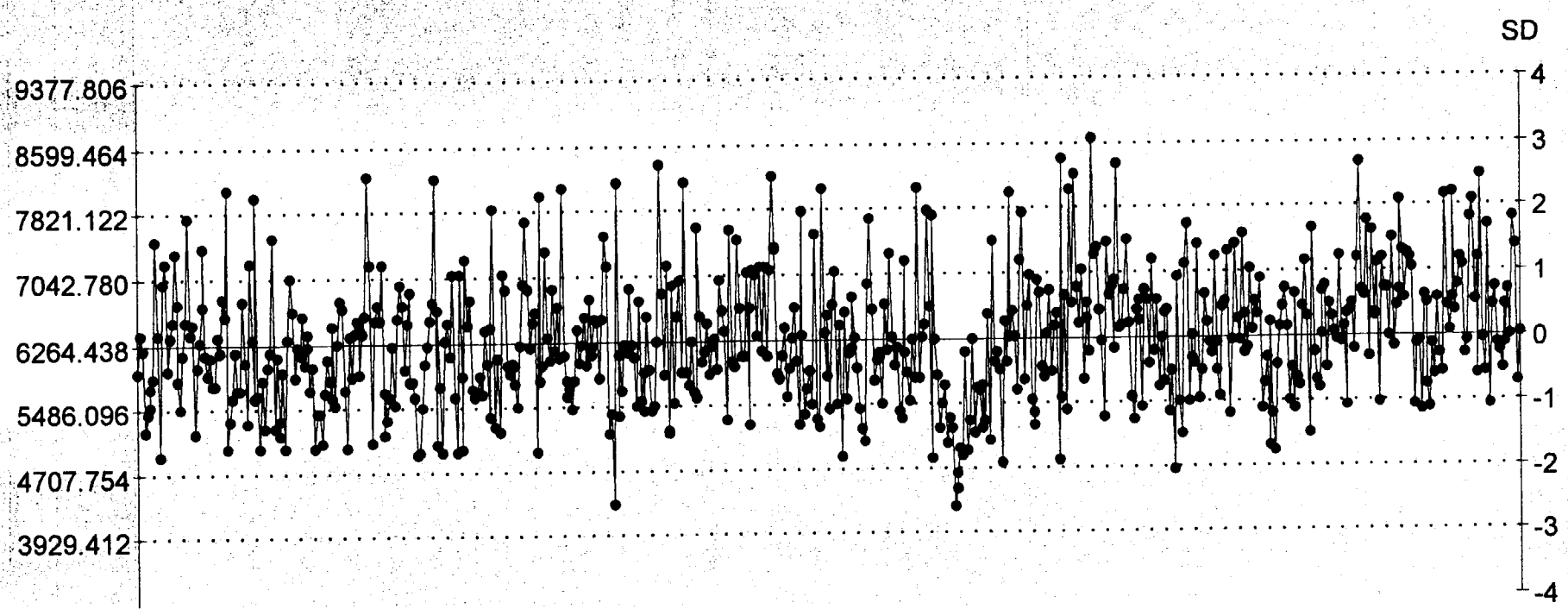
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380

380

380

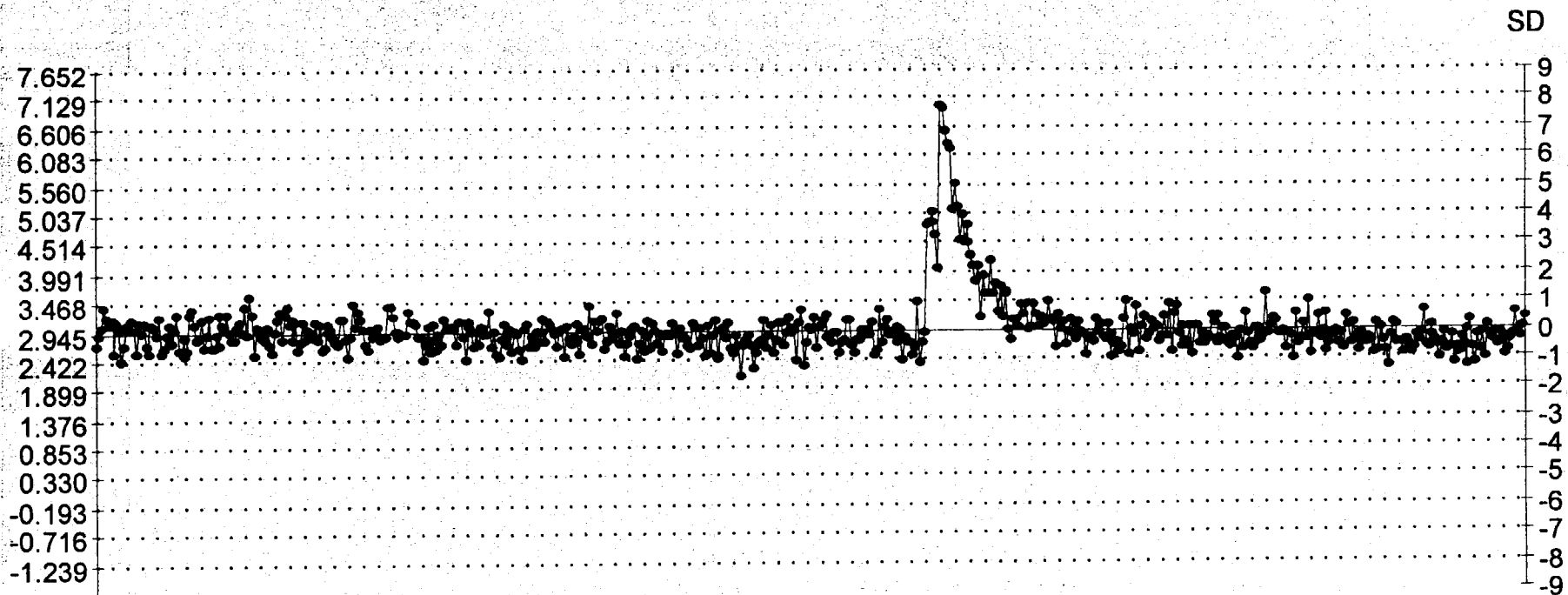
380



STL

Background

Total # pts : 608  
Valid # pts : 608  
Mean : 2.95  
SD : 0.52



STL

Dem

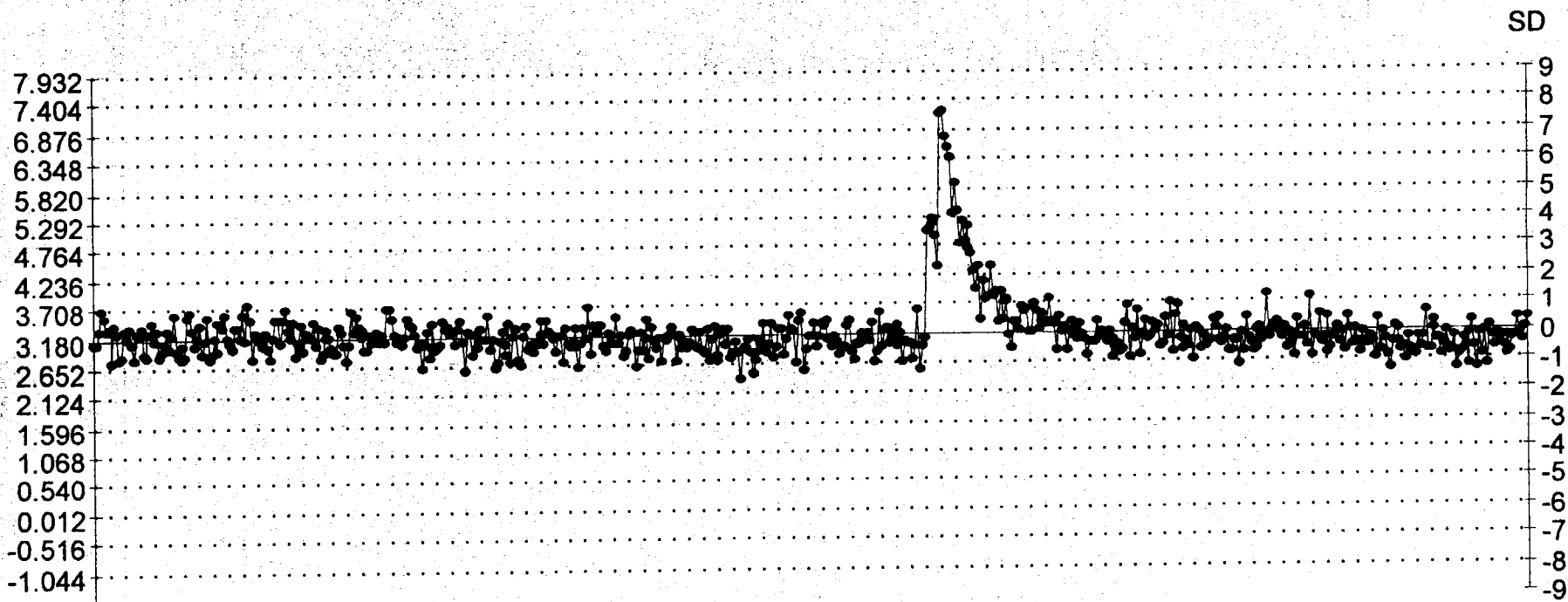
4C Background

Total # pts : 608

Valid # pts : 608

Mean : 3.18

SD : 0.53





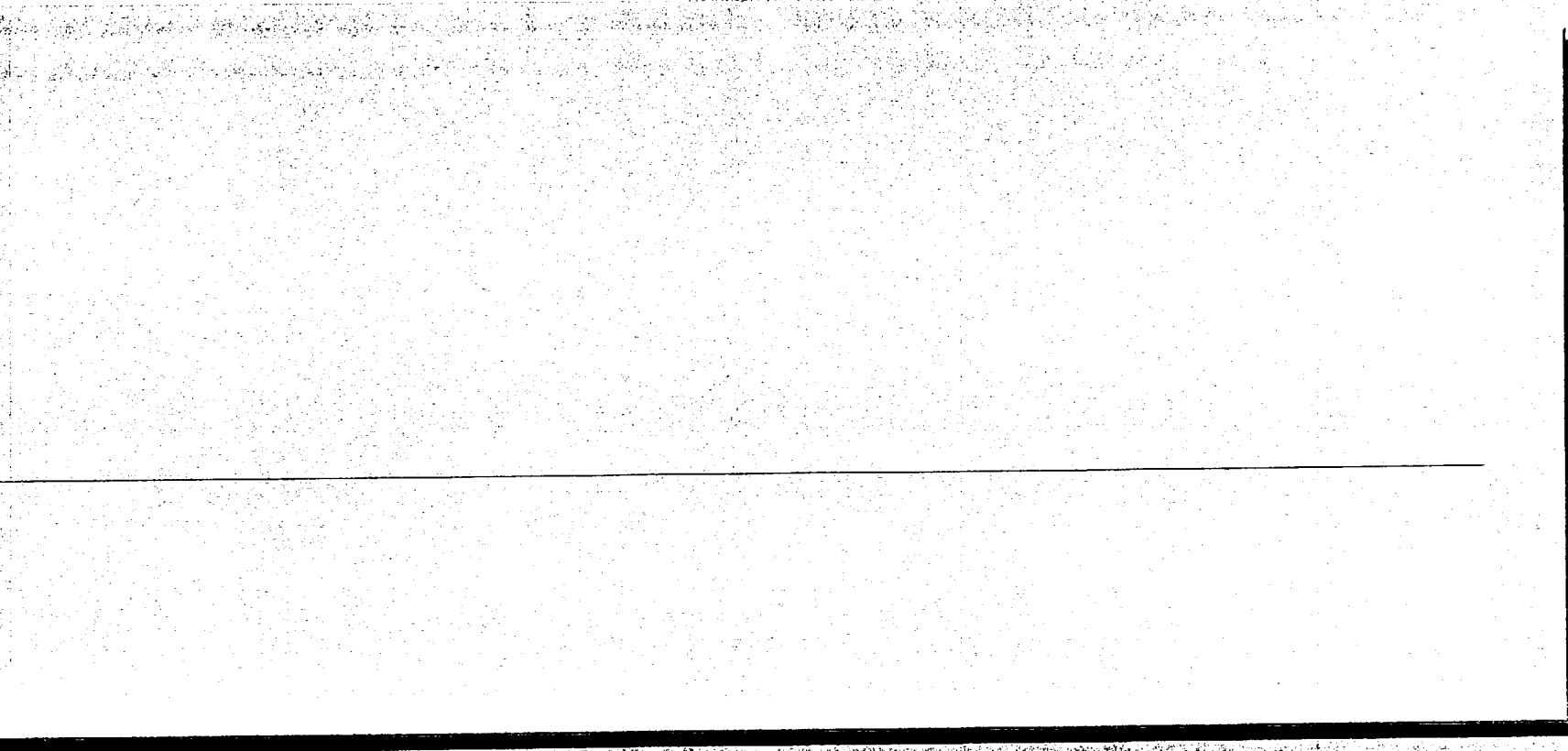
STL

De

BH Efficiency

Total # pts : 612  
Valid # pts : 612  
Mean : 64.11  
SD : 0.81

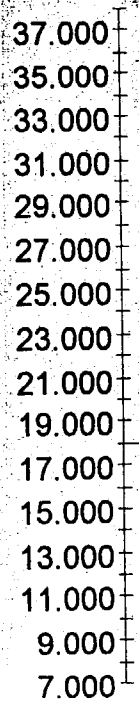
37.000  
35.000  
33.000  
31.000  
29.000  
27.000  
25.000  
23.000  
21.000  
19.000  
17.000  
15.000  
13.000  
11.000  
9.000  
7.000



STL  
Dem  
ave

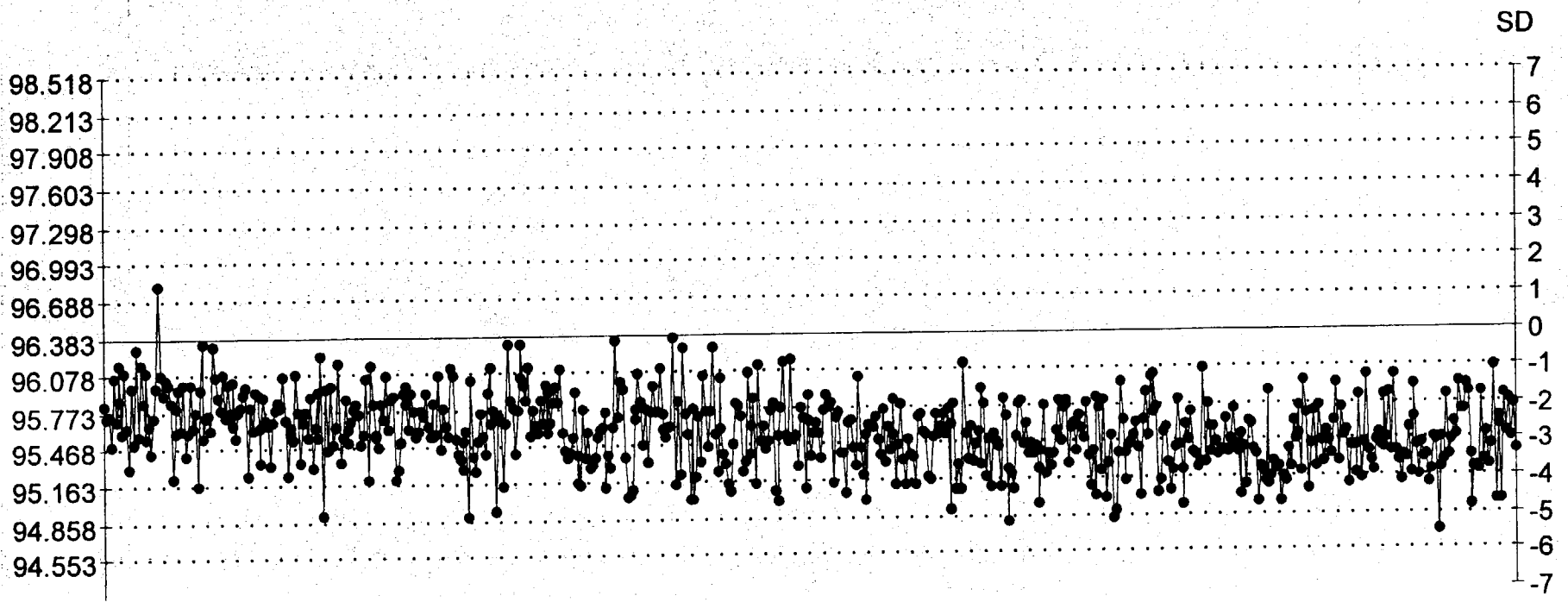
4C Efficiency

Total # pts : 615  
Valid # pts : 615  
Mean : 95.57  
SD : 0.31



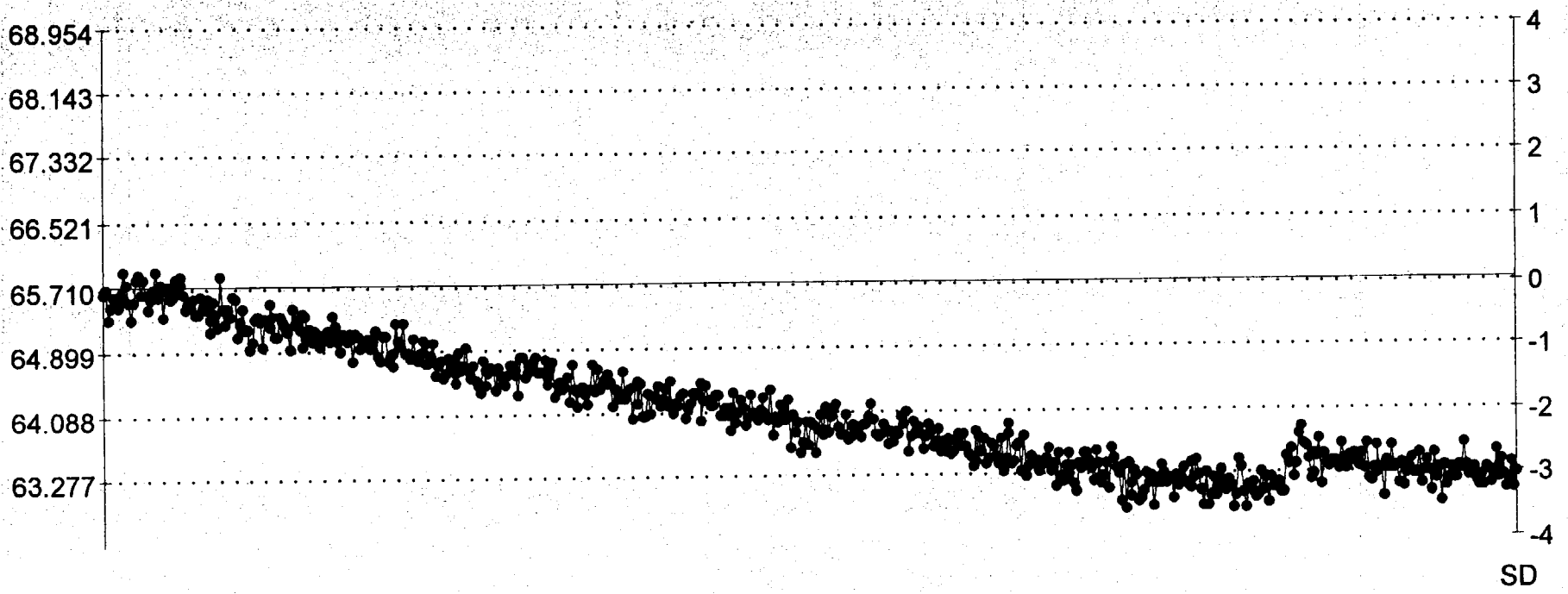
STL  
Dem  
4C Efficiency Baseline Sep 17, 2002 - Present

Total # pts : 615  
Valid # pts : 615  
Mean : 95.57  
Baseline SD : 0.31  
Baseline Mean : 96.38



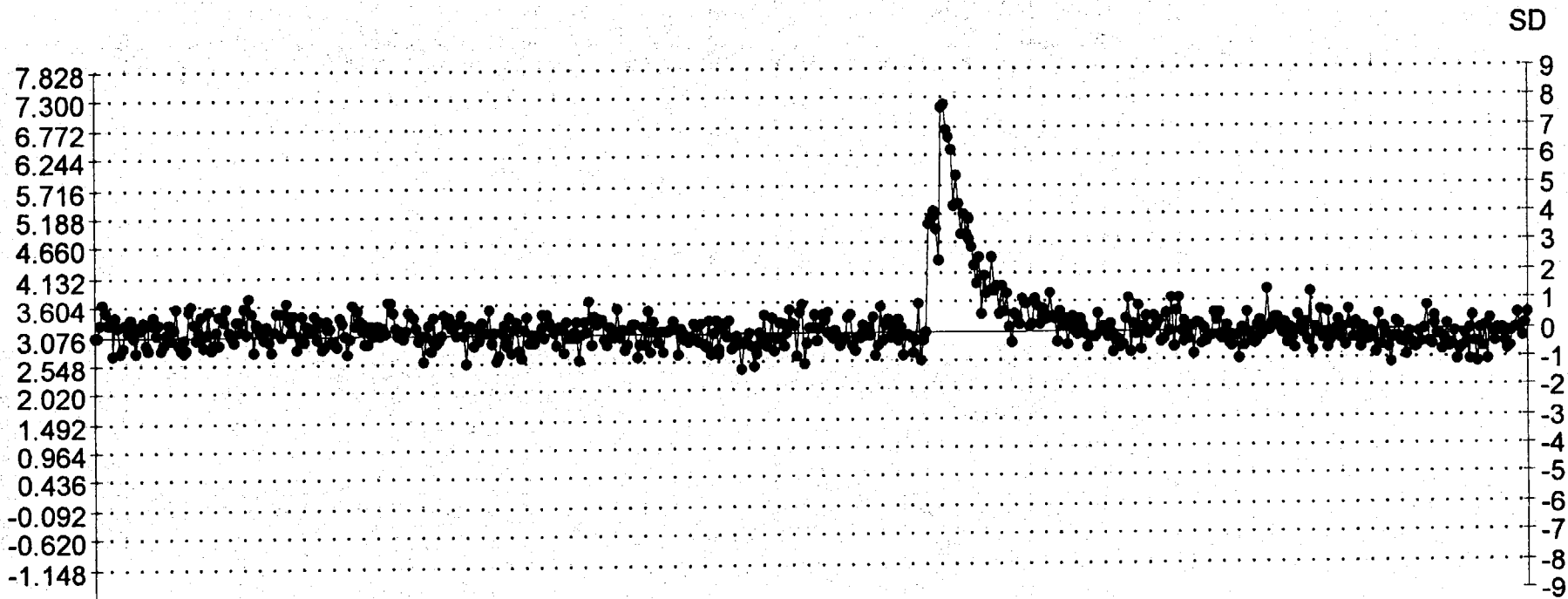
STL Dev  
Dev  
RH Efficiency Baseline Oct 08, 2002 - Present

Total # pts : 612  
Valid # pts : 612  
Mean : 64.11  
Baseline SD : 0.81  
Baseline Mean : 65.71



STL  
Dem  
4C Background Baseline Oct 08, 2002 - Present

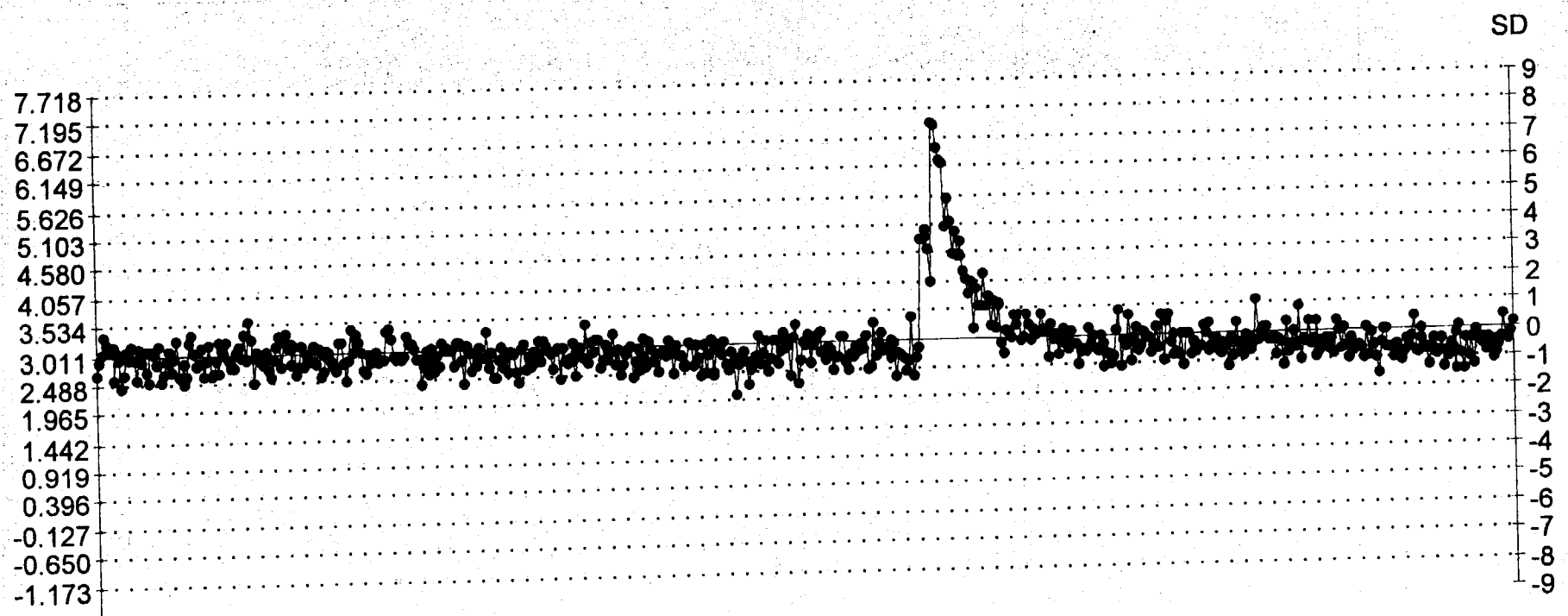
Total # pts : 608  
Valid # pts : 608  
Mean : 3.18  
Baseline SD : 0.53  
Baseline Mean : 3.08



STL  
Deriva  
M

Background Baseline Oct 08, 2002 - Present

Total # pts : 608  
Valid # pts : 608  
Mean : 2.95  
Baseline SD : 0.52  
Baseline Mean : 3.01



SEVERN  
TRENT

STL

## Instrument Checks

## SNC Protocol

## Calibration Information

Software Version IC: 2.11

Software Version EC: 1.31

Instrument Model: Tri-Carb 3170TR/SL

Instrument Serial Number: 429670

3H Chi Square: 27.55 Date Processed: 2/27/04 1:05:43 PM

14C Chi Square: 22.31 Date Processed: 2/27/04 1:05:43 PM

3H E<sup>2</sup>/B (1-18.6 keV): 1541.38 Date Processed: 6/10/04 5:18:00 AM14C E<sup>2</sup>/B (4-156 keV): 6497.27 Date Processed: 6/10/04 5:18:00 AM

3H Efficiency (0-18.6 keV): 63.29 Date Processed: 6/10/04 5:18:00 AM

14C Efficiency (0-156 keV): 95.02 Date Processed: 6/10/04 5:18:00 AM

IPA Background Date Processed: 6/10/04 5:18:00 AM

3H Background CPM (0-18.6 keV): 2.77 Date Processed: 6/10/04 5:18:00 AM

14C Background CPM (0-156 keV): 2.94 Date Processed: 6/10/04 5:18:00 AM

3H Calibration DPM: 280500

3H Reference Date: 6/4/02

14C Calibration DPM: 120600



**LSC Instrument Check**

**3170**

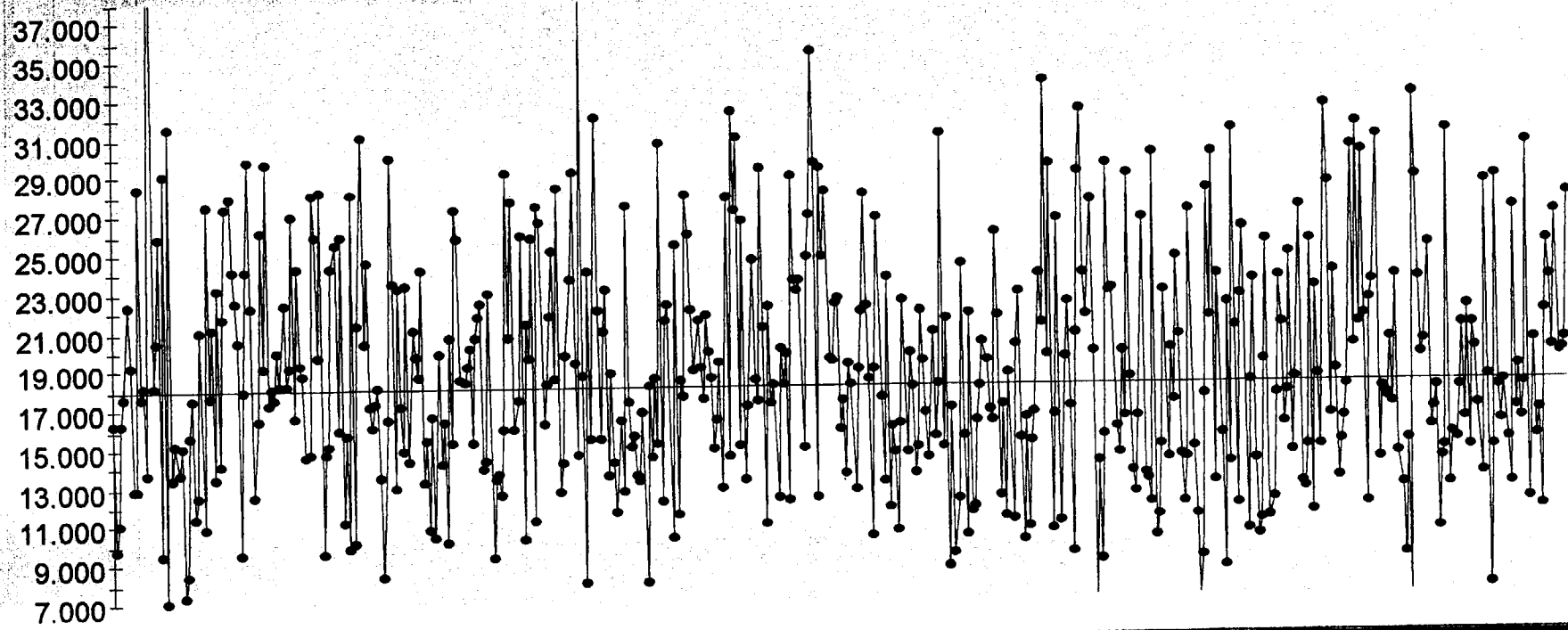
**6/6/04**

STL

De

3M Chi Square

Total # pts : 510  
Valid # pts : 510  
Mean : 18.72  
SD : 6.17

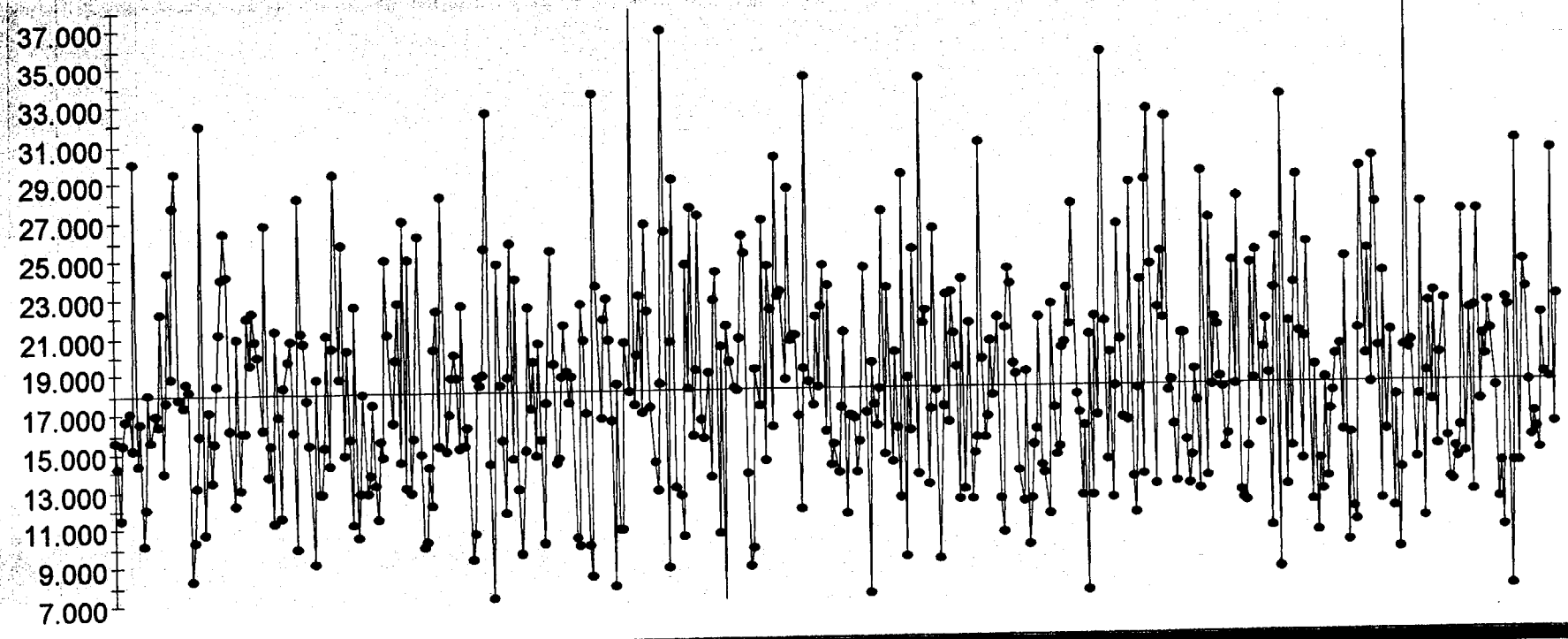


STL

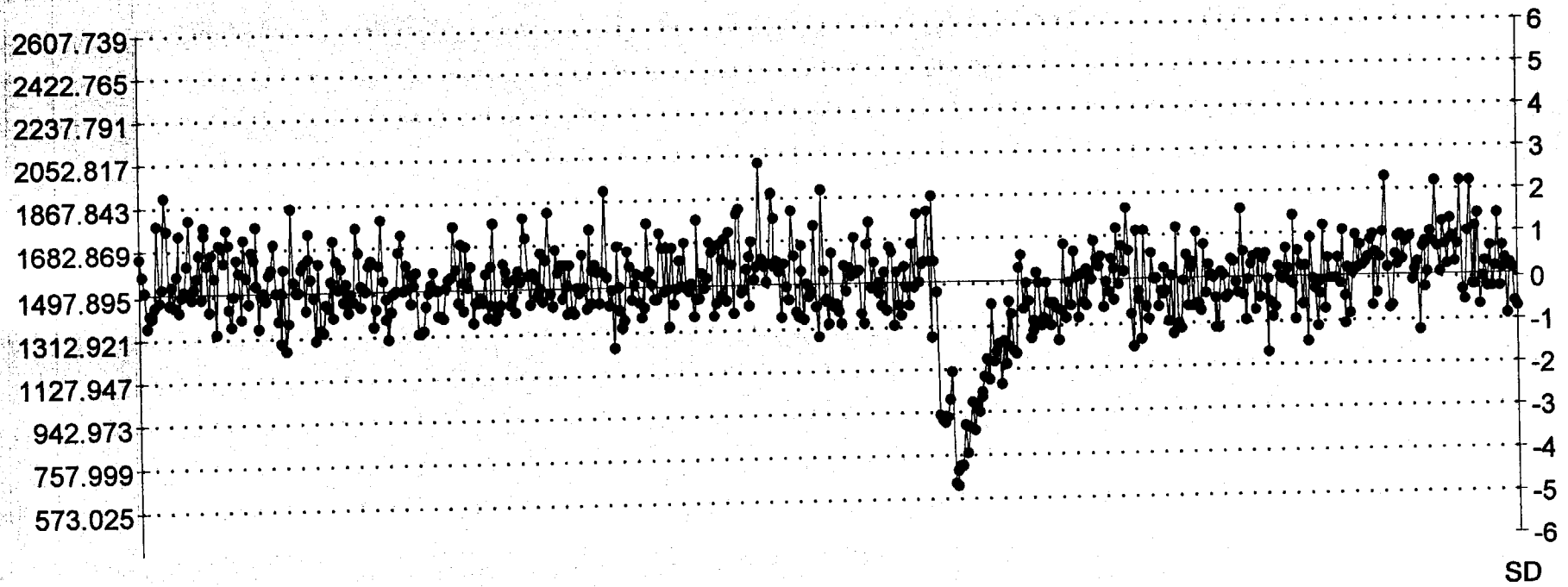
Dev

14C Chi Square

Total # pts : 511  
Valid # pts : 511  
Mean : 18.17  
SD : 5.67



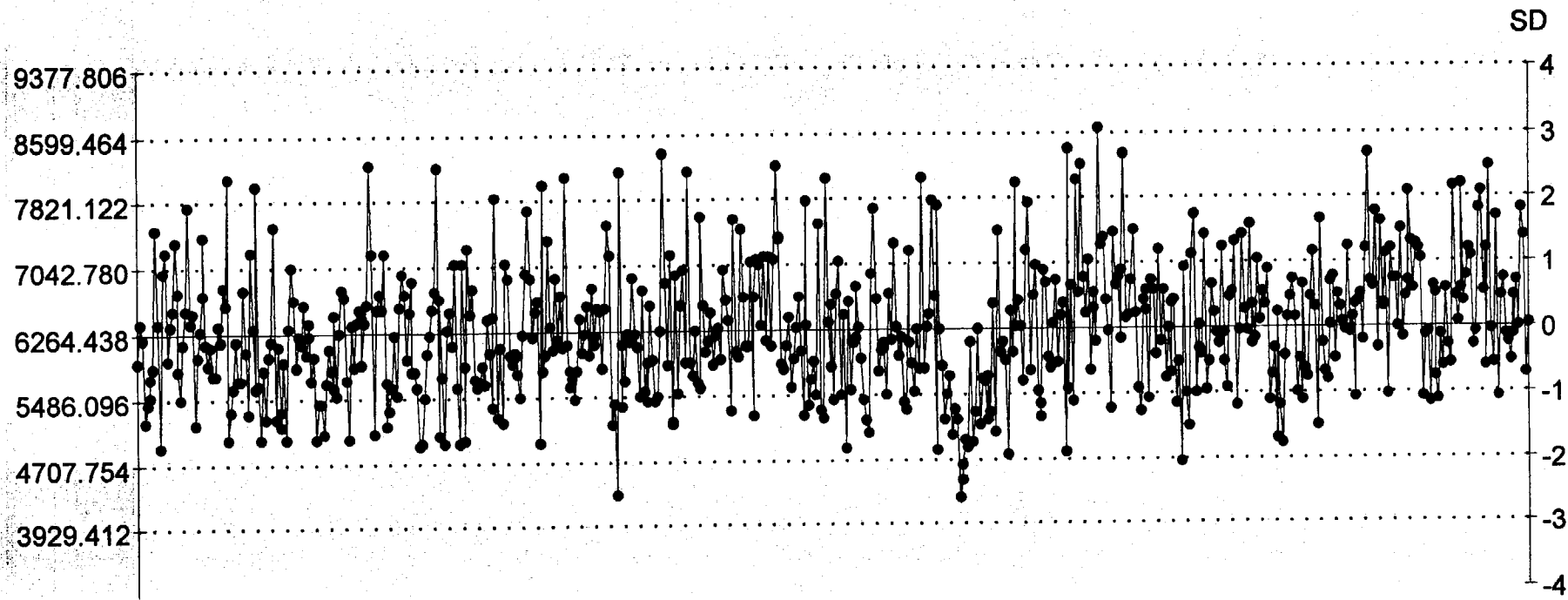
30 E^2/B  
Total # pts : 607  
Valid # pts : 607  
Mean : 1497.90  
SD : 184.97  
E^2/B Threshold : 180



STL

Dev

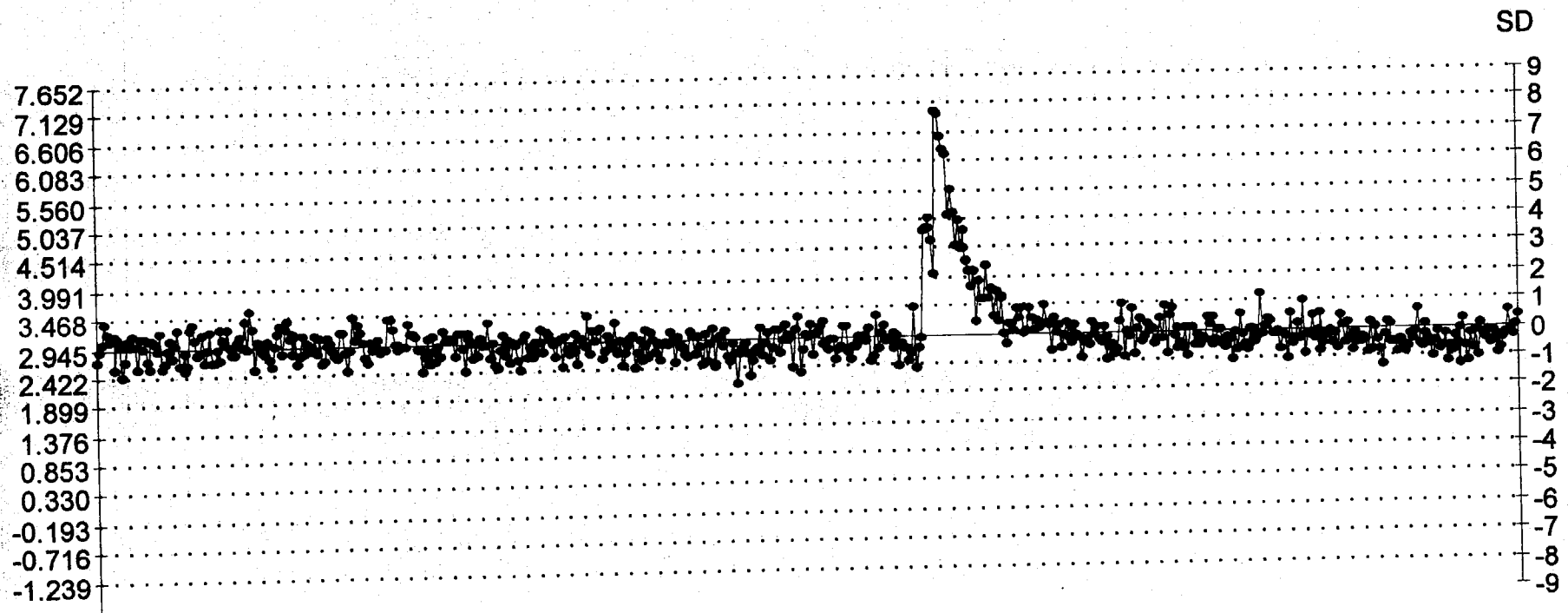
1 $\sigma$  C E<sup>2</sup>/B  
Total # pts : 607  
Valid # pts : 607  
Mean : 6264.44  
SD : 778.34  
E<sup>2</sup>/B Threshold : 380



ITL  
Deriv

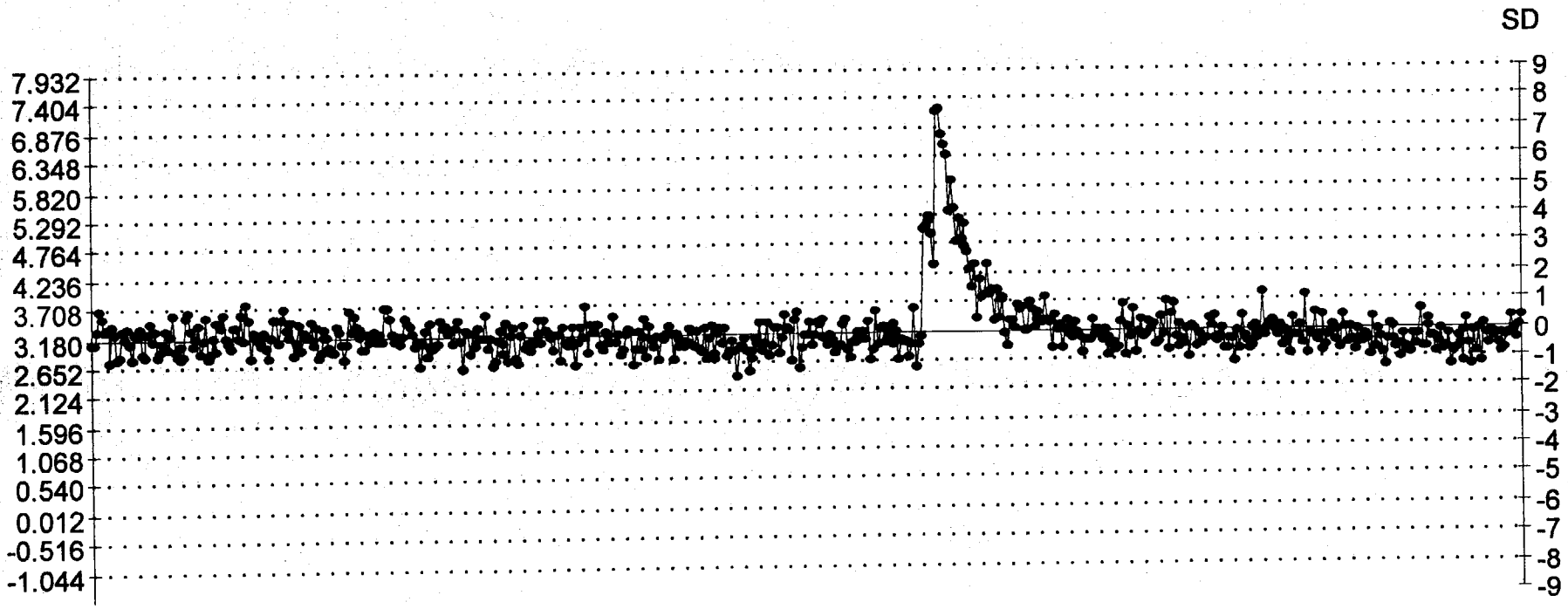
3H Background

Total # pts : 608  
Valid # pts : 608  
Mean : 2.95  
SD : 0.52



STL  
Dev  
LAC Background

Total # pts : 608  
Valid # pts : 608  
Mean : 3.18  
SD : 0.53



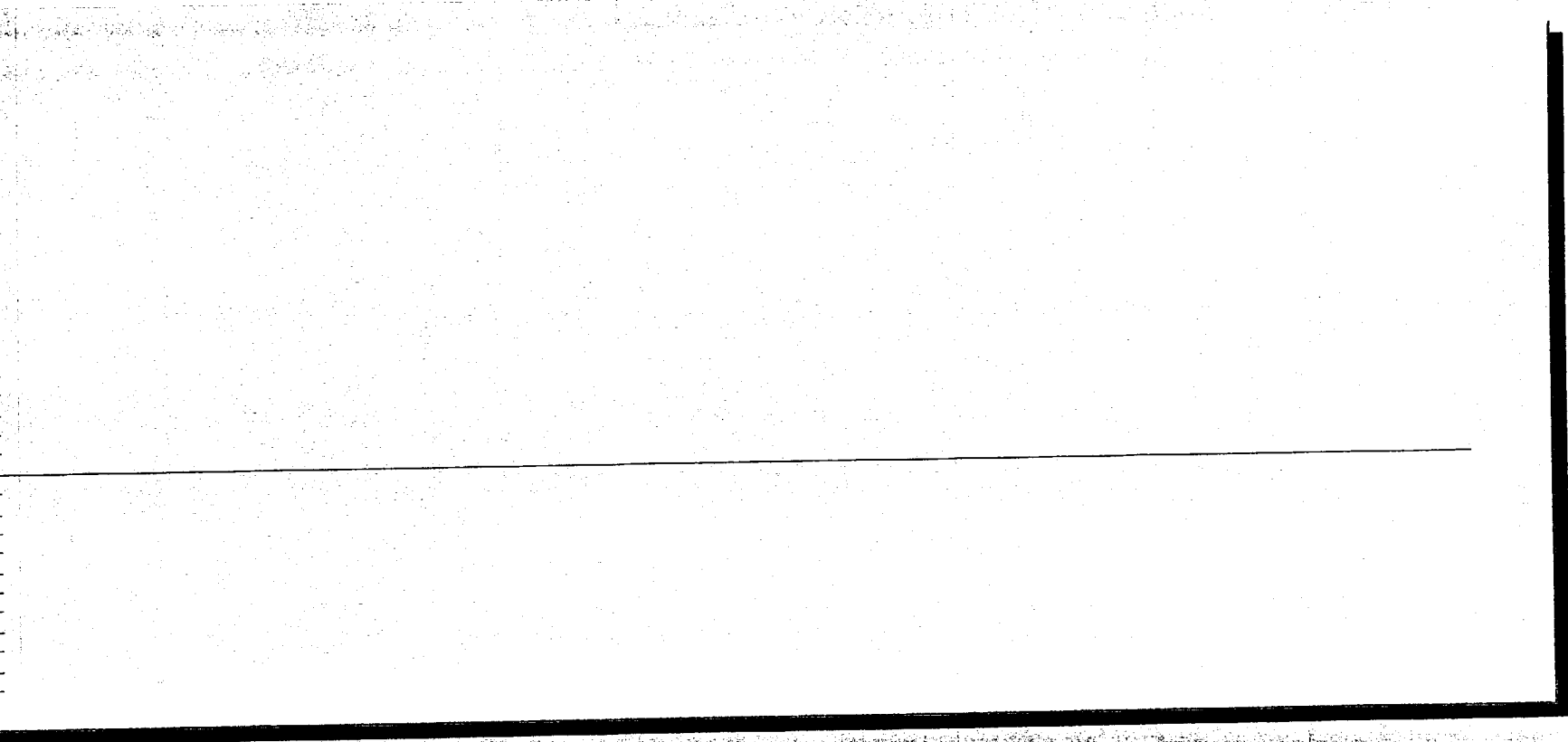
STL

De

3# Efficiency

Total # pts : 612  
Valid # pts : 612  
Mean : 64.11  
SD : 0.81

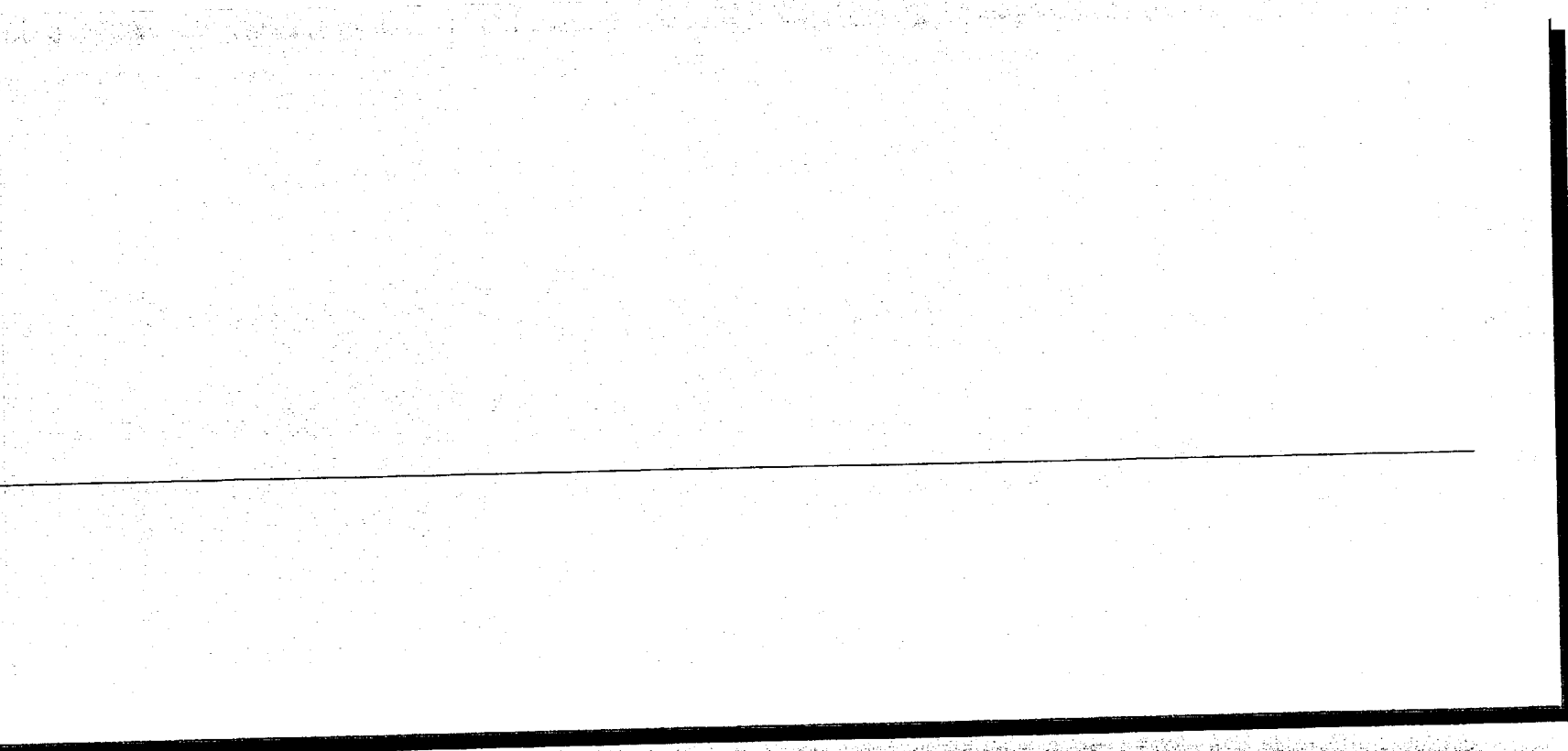
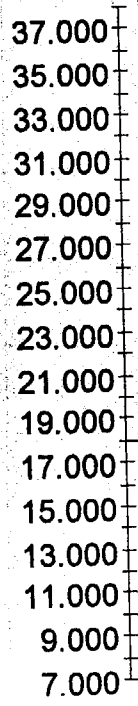
37.000  
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7.000





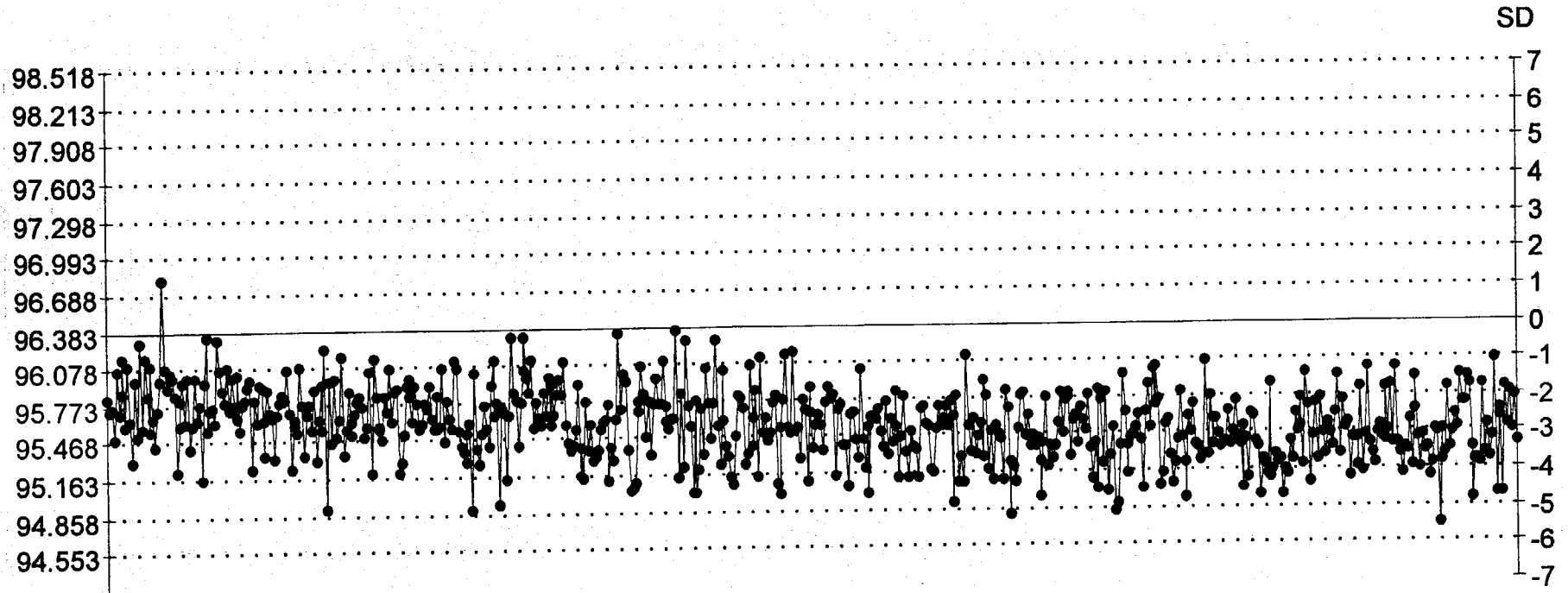
STL  
Deriv

14C Efficiency  
Total # pts : 615  
Valid # pts : 615  
Mean : 95.57  
SD : 0.31



STL  
Dev  
CAC Efficiency Baseline Sep 17, 2002 - Present

Total # pts : 615  
Valid # pts : 615  
Mean : 95.57  
Baseline SD : 0.31  
Baseline Mean : 96.38

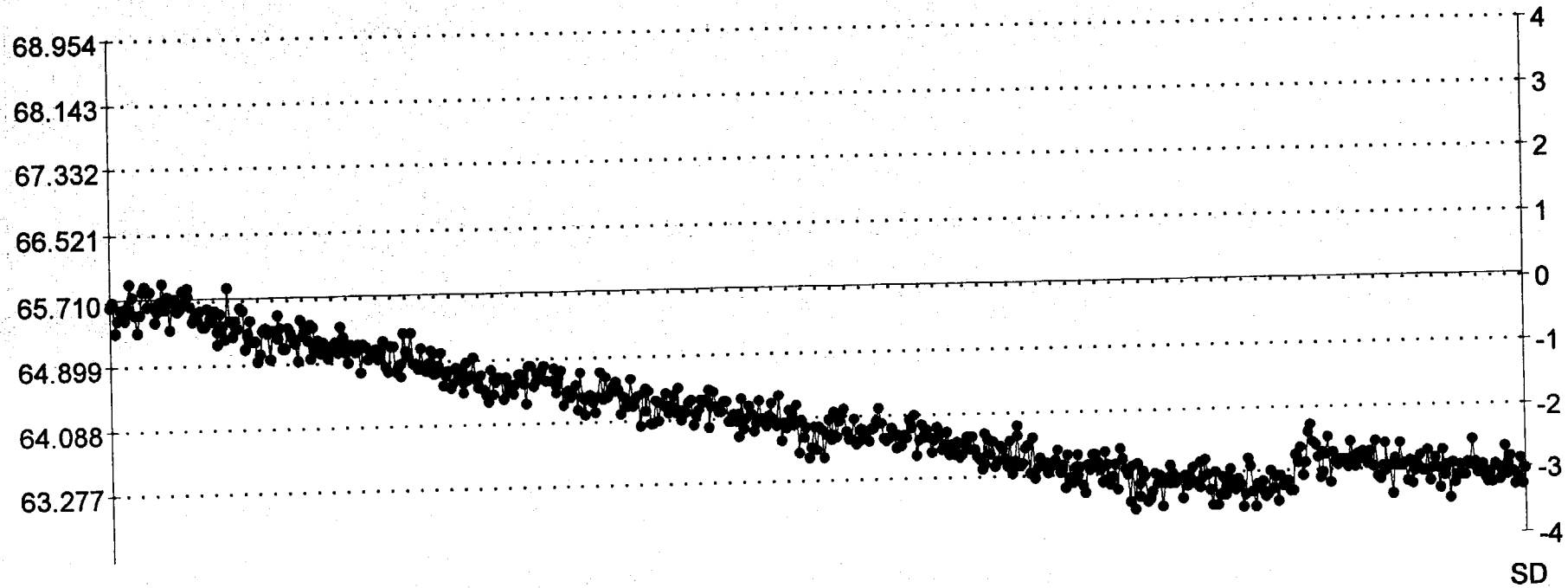


TL

Deriv

3H Efficiency Baseline Oct 08, 2002 - Present

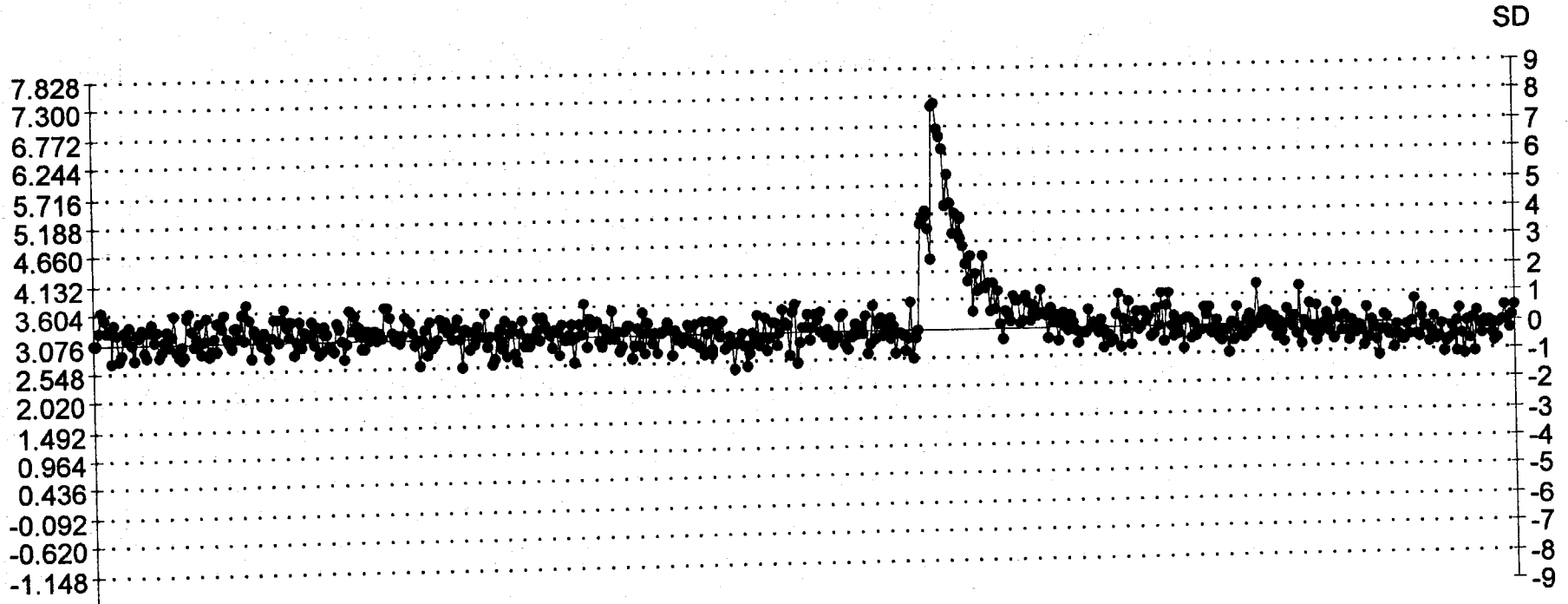
Total # pts : 612  
Valid # pts : 612  
Mean : 64.11  
Baseline SD : 0.81  
Baseline Mean : 65.71



TL Deriv

14C Background Baseline Oct 08, 2002 - Present

Total # pts : 608  
Valid # pts : 608  
Mean : 3.18  
Baseline SD : 0.53  
Baseline Mean : 3.08

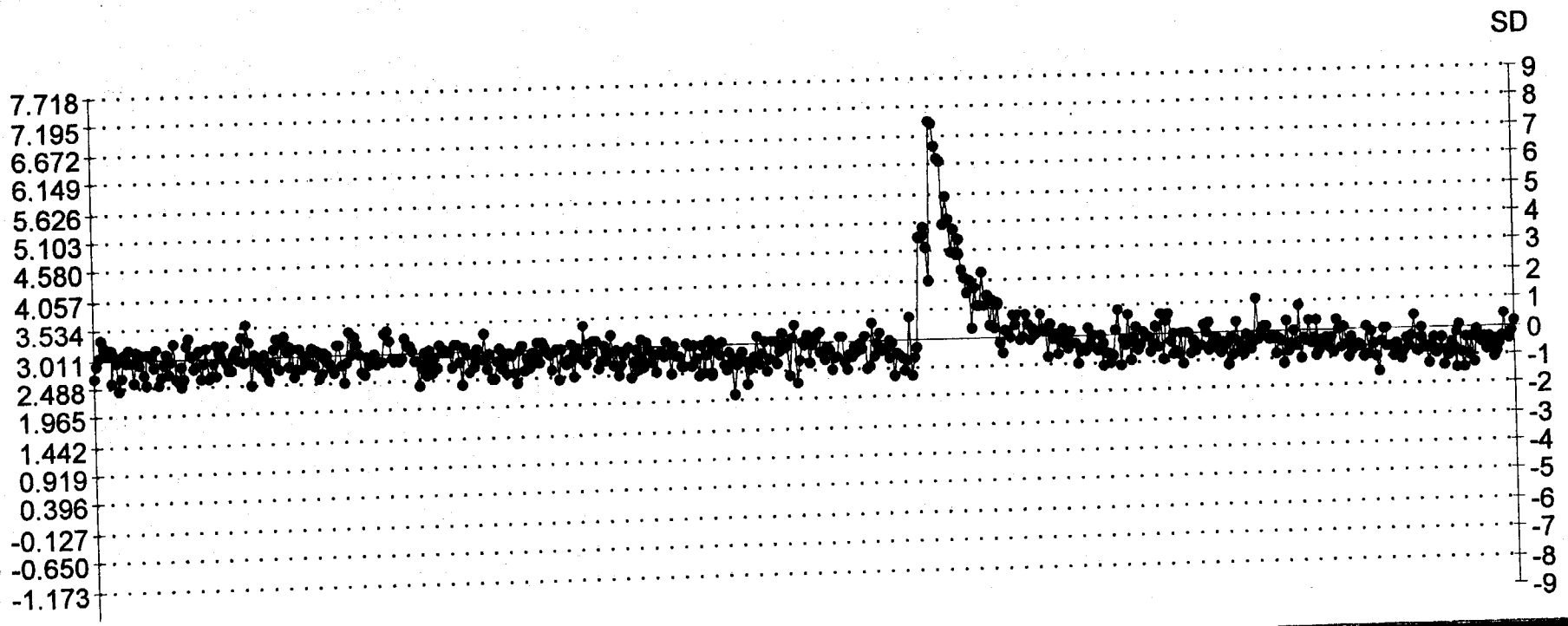


TTL

Dens

3 Background Baseline Oct 08, 2002 - Present

Total # pts : 608  
Valid # pts : 608  
Mean : 2.95  
Baseline SD : 0.52  
Baseline Mean : 3.01





STL

Liquid  
*Scintillation*  
*Nickel-63*

LIQUID SCINTILLATION

Data and Results Reports

Calibration Data  
*Monthly Quench Curve*

Batch Summary Sheets  
*Run Logs*

Raw Data  
*Prep Data Sheet(s)*  
*Instrument Printouts*  
*QC Acceptance Sheet(s)*  
*Certificate/Standard Sheets*



# STL

## Analysis Report for Nickel 59/63 by LSC

**Batch:** 4154153

**Operator:** 60040

 STL St. Louis  
 13715 Rider Trail North  
 Earth City, MO 63045

<u>Sample Information</u>				<u>Count Information</u>				<u>Results</u>			
Sample ID	Aliquot	Sample Date/Time	Instrument	SampDPM	RunDate/Time	Activity	UncTotal	MDA			
Work Order #	DilFactor	Sigma	Tracer Yield	Duration	Bkg DPM	Decay	UncCount	DLC			
D4E190262-001 GGJX41AD	100.0000 mL 1.00 2.00	5/18/04 13:42	LSC3170 30.00	Ni-59:	0.00	6/4/04 11:41	0.000E+000	pCi/L	0.000E+000	1.114E+001	
					1.09	1.0000			0.000E+000	5.057E+000	
				Ni-63:	8.43		-3.547E-001	pCi/L	8.447E-001	2.307E+001	
					8.49	0.9997			8.439E-001	1.085E+001	
D4E190262-002 GGJX61AD	100.0000 mL 1.00 2.00	5/18/04 15:30	LSC3170 30.00	Ni-59:	0.00	6/4/04 12:12	0.000E+000	pCi/L	0.000E+000	1.138E+001	
					1.09	1.0000			0.000E+000	5.167E+000	
				Ni-63:	4.90		-1.878E+001	pCi/L	1.560E+001	2.122E+001	
					8.49	0.9997			1.549E+001	9.976E+000	
D4E190262-003 GGJX81AC	100.0000 mL 1.00 2.00	5/18/04 16:00	LSC3170 30.00	Ni-59:	0.00	6/4/04 12:43	0.000E+000	pCi/L	0.000E+000	1.109E+001	
					1.09	1.0000			0.000E+000	5.034E+000	
				Ni-63:	6.57		-1.020E+001	pCi/L	2.786E+001	2.159E+001	
					8.49	0.9997			2.784E+001	1.015E+001	
D4E190262-004 GGJX91AD	100.0000 mL 1.00 2.00	5/18/04 17:00	LSC3170 30.00	Ni-59:	0.00	6/4/04 13:14	0.000E+000	pCi/L	0.000E+000	1.102E+001	
					1.09	1.0000			0.000E+000	5.003E+000	
				Ni-63:	5.50		-1.580E+001	pCi/L	1.803E+001	2.146E+001	
					8.49	0.9997			1.796E+001	1.009E+001	
D4E190262-005 GGJ0A1AC	100.0000 mL 1.00 2.00	5/18/04 17:00	LSC3170 30.00	Ni-59:	0.00	6/4/04 13:45	0.000E+000	pCi/L	0.000E+000	1.117E+001	
					1.09	1.0000			0.000E+000	5.072E+000	
				Ni-63:	5.67		-1.482E+001	pCi/L	1.869E+001	2.129E+001	
					8.49	0.9997			1.863E+001	1.001E+001	
D4E210325-001 GGTEE1AD	100.0000 mL 1.00 2.00	5/19/04 10:25	LSC3170 30.00	Ni-59:	0.00	6/4/04 14:16	0.000E+000	pCi/L	0.000E+000	1.189E+001	
					1.09	1.0000			0.000E+000	5.401E+000	
				Ni-63:	6.51		-1.083E+001	pCi/L	2.779E+001	2.218E+001	
					8.49	0.9997			2.777E+001	1.043E+001	
D4E210325-001D GGTEE1AK	100.0000 mL 1.00 2.00	5/19/04 10:25	LSC3170 30.00	Ni-59:	344.42	6/4/04 14:46	1.752E+003	pCi/L	1.790E+002	1.059E+001	
					1.09	1.0000			3.688E+001	4.807E+000	
				Ni-63:	352.15		1.749E+003	pCi/L	1.840E+002	2.062E+001	
					8.49	0.9997			5.738E+001	9.694E+000	
D4E210325-001S GGTEE1AJ	100.0000 mL 1.00 2.00	5/19/04 10:25	LSC3170 30.00	Ni-59:	366.65	6/4/04 15:17	2.094E+003	pCi/L	2.138E+002	1.189E+001	
					1.09	1.0000			4.320E+001	5.397E+000	
				Ni-63:	357.79		1.995E+003	pCi/L	2.098E+002	2.315E+001	
					8.49	0.9997			6.492E+001	1.088E+001	



<u>Sample Information</u>				<u>Count Information</u>				<u>Results</u>			
<u>Sample ID</u>	<u>Aliquot</u>	<u>Sample Date/Time</u>		<u>Instrument</u>	<u>SampDPM</u>	<u>RunDate/Time</u>		<u>Activity</u>	<u>UncTotal</u>	<u>MDA</u>	
<u>Work Order #</u>	<u>DilFactor</u>	<u>Sigma</u>	<u>Tracer Yield</u>	<u>Duration</u>	<u>Bkg DPM</u>	<u>Decay</u>		<u>pCi/L</u>	<u>UncCount</u>	<u>DLC</u>	
D4E210325-002 GGTE31AD	100.0000 mL 1.00	2.00	5/19/04 10:30 0.92	LSC3170 30.00	1.50 1.09	6/4/04 15:48 1.0000	7.533E+000	pCi/L	4.231E+000	1.065E+001	
									4.163E+000	4.838E+000	
D4E210325-003 GGTE61AD	100.0000 mL 1.00	2.00	5/19/04 13:30 0.93	LSC3170 30.00	0.00 1.09	6/4/04 16:19 1.0000	0.000E+000	pCi/L	0.000E+000	1.038E+001	
									0.000E+000	4.714E+000	
D4E210325-004 GGTE71AD	100.0000 mL 1.00	2.00	5/19/04 13:35 0.93	LSC3170 30.00	0.00 1.09	6/4/04 16:50 1.0000	0.000E+000	pCi/L	0.000E+000	1.110E+001	
									0.000E+000	5.040E+000	
D4E210325-005 GGTFE1AD	100.0000 mL 1.00	2.00	5/19/04 16:00 0.84	LSC3170 30.00	0.00 1.09	6/4/04 17:21 1.0000	0.000E+000	pCi/L	0.000E+000	1.092E+001	
									0.000E+000	4.957E+000	
D4E210325-006 GGTFH1AD	100.0000 mL 1.00	2.00	5/19/04 16:00 0.94	LSC3170 30.00	0.00 1.09	6/4/04 17:52 1.0000	0.000E+000	pCi/L	0.000E+000	1.067E+001	
									0.000E+000	4.846E+000	
D4E210325-008 GGTFX1AD	100.0000 mL 1.00	2.00	5/20/04 8:00 0.98	LSC3170 30.00	0.00 1.09	6/4/04 18:23 1.0000	0.000E+000	pCi/L	0.000E+000	9.382E+000	
									0.000E+000	4.260E+000	
D4E210325-009 GGTF31AD	100.0000 mL 1.00	2.00	5/20/04 9:10 1.01	LSC3170 30.00	0.00 1.09	6/4/04 18:53 1.0000	0.000E+000	pCi/L	0.000E+000	9.615E+000	
									0.000E+000	4.366E+000	
F4F020000-153B GHFEW1AA	100.0000 mL 1.00	2.00	5/18/04 13:42 0.83	LSC3170 30.00	0.00 1.09	6/4/04 10:40 1.0000	0.000E+000	pCi/L	0.000E+000	1.189E+001	
									0.000E+000	5.401E+000	
F4F020000-153C GHFEW1AC	100.0000 mL 1.00	2.00	5/18/04 13:42 0.94	LSC3170 30.00	396.64 398.86	6/4/04 11:11 1.0000	1.946E+003	pCi/L	1.984E+002	1.043E+001	
									1.989E+001	4.738E+000	
					8.49	0.9997	1.916E+003	pCi/L	2.004E+002	1.989E+001	
									5.879E+001	9.350E+000	

<u>Sample Information</u>				<u>Count Information</u>			<u>Results</u>		
<u>Sample ID</u>	<u>Aliquot</u>	<u>Sample Date/Time</u>	<u>Instrument</u>	<u>SampDPM</u>	<u>RunDateTime</u>	<u>Activity</u>	<u>UncTotal</u>	<u>MDA</u>	
<u>Work Order #</u>	<u>DilFactor</u>	<u>Sigma</u>	<u>Tracer Yield</u>	<u>Duration</u>	<u>Bkg DPM</u>	<u>Decay</u>	<u>UncCount</u>		<u>DLC</u>

**Laboratory Control Sample Information**

<u>SampID</u>	<u>WRKNO</u>	<u>ComponentName</u>	<u>Activity</u>	<u>StdAdded</u>	<u>Recovery</u>
F4F020000-153C	GHFEW1AC	Ni-63	1.916E+003pCi/L	1.934E+003pCi/L	99.09%
F4F020000-153C	GHFEW1AC	Ni-59	1.946E+003pCi/L	2.051E+003pCi/L	94.90%

**Sample Duplicate Information**

<u>Sample ID</u>	<u>Dup Sample ID</u>	<u>Sample Activity</u>	<u>Dup Activity</u>	<u>RPD</u>	<u>RER</u>
D4E210325-001S	D4E210325-001D	<i>Ni-59:</i> 2.094E+003pCi/L	1.967E+003pCi/L	6.25%	3.061E-001
		<i>Ni-63:</i> 1.995E+003pCi/L	1.749E+003pCi/L	13.18%	6.265E-001

**Matrix Spike Information**

<u>SampID</u>	<u>SampMSID</u>	<u>Sample Activity</u>	<u>MS Activity</u>	<u>StdAdded</u>	<u>MSRecovery</u>
D4E210325-001	D4E210325-001D	-1.083E+001 pCi/L	1.749E+003 pCi/L	1.934E+003	90.43%
D4E210325-001	D4E210325-001D	0.000E+000 pCi/L	1.752E+003 pCi/L	2.051E+003	85.43%
D4E210325-001	D4E210325-001S	-1.083E+001 pCi/L	1.995E+003 pCi/L	1.934E+003	103.19%
D4E210325-001	D4E210325-001S	0.000E+000 pCi/L	2.094E+003 pCi/L	2.051E+003	102.10%



**STL**

**Analysis Report for Nickel 59/63 by LSC**

**Batch: 4160269**

**Operator: 400697**

STL St. Louis  
13715 Rider Trail North  
Earth City, MO 63045

<u>Sample Information</u>				<u>Count Information</u>				<u>Results</u>		
<u>Sample ID</u>	<u>Aliquot</u>	<u>Sample Date/Time</u>		<u>Instrument</u>	<u>SampDPM</u>	<u>RunDate/Time</u>		<u>Activity</u>	<u>UncTotal</u>	<u>MDA</u>
<u>Work Order #</u>	<u>DilFactor</u>	<u>Sigma</u>	<u>Tracer Yield</u>	<u>Duration</u>	<u>Bkg DPM</u>	<u>Decay</u>		<u>pCi/g</u>	<u>UncCount</u>	<u>DLC</u>
D4E210325-010	1.0009 g	5/20/04 9:30		LSC3170	0.00	6/10/04 6:51		0.000E+000	0.000E+000	1.359E+001
GGTF41AF	5.00	2.00	0.96	30.00	1.20	1.0000			0.000E+000	6.196E+000
					9.15			4.422E-001	2.279E+000	1.211E+001
					8.96	0.9996			2.279E+000	5.710E+000
D4E210325-010X	1.0080 g	5/20/04 9:30		LSC3170	0.00	6/10/04 7:22		0.000E+000	0.000E+000	1.065E+001
GGTF41AH	5.00	2.00	0.95	30.00	1.20	1.0000			0.000E+000	4.857E+000
					8.49			-1.143E+000	3.399E+000	1.175E+001
					8.96	0.9996			3.397E+000	5.541E+000
F4F080000-269B	1.0000 g	5/20/04 9:30		LSC3170	1.30	6/10/04 5:49		1.753E+000	1.041E+000	4.727E+000
GHTHA1AA	1.00	2.00	0.34	30.00	1.20	1.0000			1.026E+000	2.155E+000
					5.98			-4.018E+000	3.380E+000	6.189E+000
					8.96	0.9996			3.356E+000	2.917E+000
F4F080000-269C	1.0000 g	5/20/04 9:30		LSC3170	369.30	6/10/04 6:20		4.065E+002	4.216E+001	5.901E+000
GHTHA1AC	1.00	2.00	0.42	30.00	1.20	1.0000			1.117E+001	2.690E+000
					385.95			4.152E+002	4.388E+001	5.552E+000
					8.96	0.9996			1.419E+001	2.617E+000

**Laboratory Control Sample Information**

<u>SampID</u>	<u>WRKNO</u>	<u>ComponentName</u>	<u>Activity</u>	<u>StdAdded</u>	<u>Recovery</u>
F4F080000-269C	GHTHA1AC	Ni-59	4.065E+002pCi/g	2.051E+002pCi/g	198.23%
F4F080000-269C	GHTHA1AC	Ni-63	4.152E+002pCi/g	1.934E+002pCi/g	214.71%

**Sample Duplicate Information**

<u>Sample ID</u>	<u>Dup Sample ID</u>	<u>Sample Activity</u>	<u>Dup Activity</u>	<u>RPD</u>	<u>RER</u>
D4E210325-010	D4E210325-010X	Ni-59: 0.000E+000pCi/g	0.000E+000pCi/g	0.00%	0.000E+000
		Ni-63: 4.422E-001pCi/g	-1.143E+000pCi/g	452.19%	2.793E-001

**Matrix Spike Information**

<u>SampID</u>	<u>SampMSID</u>	<u>Sample Activity</u>	<u>MS Activity</u>	<u>StdAdded</u>	<u>MSRecovery</u>
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#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	CALBLK	O602IE2	MULTI_E	06/02/04	18:32		X	IR
2	SLOW	O602IE2	MULTI_E	06/02/04	18:36		X	IR
3	SMED	O602IE2	MULTI_E	06/02/04	18:40		X	IR
4	SHIGH	O602IE2	MULTI_E	06/02/04	18:44		X	IR
5	CAL1	O602IE2	MULTI_E	06/02/04	18:48		X	IR
6	SLOW2	O602IE2	MULTI_E	06/02/04	18:52		X	IR
7	SMED2	O602IE2	MULTI_E	06/02/04	18:56		X	IR
8	SHIGH2	O602IE2	MULTI_E	06/02/04	19:00		X	IR
9	CAL2	O602IE2	MULTI_E	06/02/04	19:03		X	IR
10	ICV	O602IE2	MULTI_E	06/02/04	19:07	STL	Q	CONC
11	ICB	O602IE2	MULTI_E	06/02/04	19:11	STL	Q	CONC
12	CCV	O602IE2	MULTI_E	06/02/04	19:16	STL	Q	CONC
13	CCB	O602IE2	MULTI_E	06/02/04	19:20	STL	Q	CONC
14	CRI	O602IE2	MULTI_E	06/02/04	19:24	STL	Q	CONC
15	ICSA	O602IE2	MULTI_E	06/02/04	19:29	STL	Q	CONC
16	ICSAB	O602IE2	MULTI_E	06/02/04	19:33	STL	Q	CONC
17	CCV	O602IE2	MULTI_E	06/02/04	19:41	STL	Q	CONC
18	CCB	O602IE2	MULTI_E	06/02/04	19:45	STL	Q	CONC
19	CCV	O602IE2	MULTI_E	06/02/04	20:09	STL	Q	CONC
20	CCB	O602IE2	MULTI_E	06/02/04	20:14	STL	Q	CONC
21	GGM8DV 5X	O602IE2	MULTI_E	06/02/04	20:18	STL	S	CONC
22	GHEQNB	O602IE2	MULTI_E	06/02/04	20:22	STL	S	CONC
23	GHEQNC	O602IE2	MULTI_E	06/02/04	20:27	STL	S	CONC
24	GG3GLF	O602IE2	MULTI_E	06/02/04	20:31	STL	S	CONC
25	GG3GL	O602IE2	MULTI_E	06/02/04	20:36	STL	S	CONC
26	GG3GLS	O602IE2	MULTI_E	06/02/04	20:40	STL	S	CONC
27	GG3GLD	O602IE2	MULTI_E	06/02/04	20:44	STL	S	CONC
28	GG3GLV 5X	O602IE2	MULTI_E	06/02/04	20:49	STL	S	CONC
29	GG38JF	O602IE2	MULTI_E	06/02/04	20:53	STL	S	CONC
30	GG38J	O602IE2	MULTI_E	06/02/04	20:57	STL	S	CONC
31	CCV	O602IE2	MULTI_E	06/02/04	21:02	STL	Q	CONC
32	CCB	O602IE2	MULTI_E	06/02/04	21:06	STL	Q	CONC
33	GG39HF	O602IE2	MULTI_E	06/02/04	21:12	STL	S	CONC
34	GG39H	O602IE2	MULTI_E	06/02/04	21:17	STL	S	CONC
35	GG6N6	O602IE2	MULTI_E	06/02/04	21:21	STL	S	CONC
36	GG6PJ	O602IE2	MULTI_E	06/02/04	21:25	STL	S	CONC
37	GG6PL	O602IE2	MULTI_E	06/02/04	21:30	STL	S	CONC
38	GG6PP	O602IE2	MULTI_E	06/02/04	21:34	STL	S	CONC
39	GG6PR	O602IE2	MULTI_E	06/02/04	21:38	STL	S	CONC
40	GG66A	O602IE2	MULTI_E	06/02/04	21:43	STL	S	CONC
41	GG812 5x	O602IE2	MULTI_E	06/02/04	21:47	STL	S	CONC
42	GG82E	O602IE2	MULTI_E	06/02/04	21:52	STL	S	CONC
43	CCV	O602IE2	MULTI_E	06/02/04	21:56	STL	Q	CONC
44	CCB	O602IE2	MULTI_E	06/02/04	22:00	STL	Q	CONC
45	GG82F	O602IE2	MULTI_E	06/02/04	22:05	STL	S	CONC
46	GG850	O602IE2	MULTI_E	06/02/04	22:09	STL	S	CONC
47	GG858	O602IE2	MULTI_E	06/02/04	22:13	STL	S	CONC
48	GHARJ	O602IE2	MULTI_E	06/02/04	22:18	STL	S	CONC
49	GHDK8B	O602IE2	MULTI_E	06/02/04	22:22	STL	S	CONC
50	GHDK8C	O602IE2	MULTI_E	06/02/04	22:26	STL	S	CONC
51	GHDK8	O602IE2	MULTI_E	06/02/04	22:31	STL	S	CONC
52	GG8W4	O602IE2	MULTI_E	06/02/04	22:35	STL	S	CONC
53	GG810	O602IE2	MULTI_E	06/02/04	22:39	STL	S	CONC

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	GG82C	O602IE2	MULTI_E	06/02/04	22:44	STL	S	CONC
55	CCV	O602IE2	MULTI_E	06/02/04	22:48	STL	Q	CONC
56	CCB	O602IE2	MULTI_E	06/02/04	22:52	STL	Q	CONC
57	GG82M	O602IE2	MULTI_E	06/02/04	22:57	STL	S	CONC
58	GG82V	O602IE2	MULTI_E	06/02/04	23:01	STL	S	CONC
59	GG83J	O602IE2	MULTI_E	06/02/04	23:05	STL	S	CONC
60	GG83V	O602IE2	MULTI_E	06/02/04	23:10	STL	S	CONC
61	GG830	O602IE2	MULTI_E	06/02/04	23:14	STL	S	CONC
62	GG834	O602IE2	MULTI_E	06/02/04	23:20	STL	S	CONC
63	GG84A	O602IE2	MULTI_E	06/02/04	23:25	STL	S	CONC
64	GG84D	O602IE2	MULTI_E	06/02/04	23:29	STL	S	CONC
65	GG84J	O602IE2	MULTI_E	06/02/04	23:33	STL	S	CONC
66	GG84M	O602IE2	MULTI_E	06/02/04	23:38	STL	S	CONC
67	CCV1	O602IE2	MULTI_E	06/02/04	23:42	STL	Q	CONC
68	CCB1	O602IE2	MULTI_E	06/02/04	23:47	STL	Q	CONC
69	GG84V	O602IE2	MULTI_E	06/02/04	23:51	STL	S	CONC
70	GG845	O602IE2	MULTI_E	06/02/04	23:55	STL	S	CONC
71	GG85C	O602IE2	MULTI_E	06/03/04	00:00	STL	S	CONC
72	GG85L	O602IE2	MULTI_E	06/03/04	00:04	STL	S	CONC
73	GG85Q	O602IE2	MULTI_E	06/03/04	00:08	STL	S	CONC
74	GG85Q 5X	O602IE2	MULTI_E	06/03/04	00:13	STL	S	CONC
75	GG3P3V 5X	O602IE2	MULTI_E	06/03/04	00:21	STL	S	CONC
76	ICSA	O602IE2	MULTI_E	06/03/04	00:26	STL	Q	CONC
77	ICSAB	O602IE2	MULTI_E	06/03/04	00:30	STL	Q	CONC
78	CCV1	O602IE2	MULTI_E	06/03/04	00:38	STL	Q	CONC
79	CCB1	O602IE2	MULTI_E	06/03/04	00:42	STL	Q	CONC
80	BLK NI	O602IE2	MULTI_E	06/03/04	00:46	STL	S	CONC
81	LCS NI	O602IE2	MULTI_E	06/03/04	00:51	STL	S	CONC
82	262-1	O602IE2	MULTI_E	06/03/04	00:55	STL	S	CONC
83	262-2	O602IE2	MULTI_E	06/03/04	00:59	STL	S	CONC
84	262-3	O602IE2	MULTI_E	06/03/04	01:04	STL	S	CONC
85	262-4	O602IE2	MULTI_E	06/03/04	01:08	STL	S	CONC
86	262-5	O602IE2	MULTI_E	06/03/04	01:12	STL	S	CONC
87	325-1	O602IE2	MULTI_E	06/03/04	01:17	STL	S	CONC
88	325-1S	O602IE2	MULTI_E	06/03/04	01:21	STL	S	CONC
89	325-1D	O602IE2	MULTI_E	06/03/04	01:26	STL	S	CONC
90	CCV1	O602IE2	MULTI_E	06/03/04	01:30	STL	Q	CONC
91	CCB1	O602IE2	MULTI_E	06/03/04	01:34	STL	Q	CONC
92	325-2	O602IE2	MULTI_E	06/03/04	01:39	STL	S	CONC
93	325-3	O602IE2	MULTI_E	06/03/04	01:43	STL	S	CONC
94	325-4	O602IE2	MULTI_E	06/03/04	01:54	STL	S	CONC
95	325-5	O602IE2	MULTI_E	06/03/04	01:59	STL	S	CONC
96	325-6	O602IE2	MULTI_E	06/03/04	02:03	STL	S	CONC
97	325-8	O602IE2	MULTI_E	06/03/04	02:07	STL	S	CONC
98	325-9	O602IE2	MULTI_E	06/03/04	02:12	STL	S	CONC
99	GG3P3V 5X	O602IE2	MULTI_E	06/03/04	02:16	STL	S	CONC
100	CCV	O602IE2	MULTI_E	06/03/04	02:20	STL	Q	CONC
101	CCB	O602IE2	MULTI_E	06/03/04	02:25	STL	Q	CONC

#	Sample Name	Ni	Fe
1	CALBLK	.0018	.0289
2	SLOW	.15979	
3	SMED	.75489	
4	SHIGH	1.50189	
5	CAL1	14.6327	
6	SLOW2		3.5692
7	SMED2		7.04549
8	SHIGH2		16.9939
9	CAL2		33.2249
10	ICV	4.7039	50.104
11	ICB	.00445	.01040
12	CCV	3.7884	40.642
13	CCB	.00710	.02062
14	CRI	.08479	.20975
15	ICSA	-.00042	177.56
16	ICSAB	.80498	175.63
17	CCV	3.7766	40.447
18	CCB	.00294	.02234
19	CCV	3.7722	40.322
20	CCB	.00181	.01045
21	GGM8DV 5X	.01344	20.792
22	GHEQNB	L.00709	L-.00253
23	GHEQNC	.96799	1.0458
24	GG3GLF	L.02509	H23.535
25	GG3GL	.07422	75.798
26	GG3GLS	.51677	68.432
27	GG3GLD	.52983	70.269
28	GG3GLV 5X	.01584	15.549
29	GG38JF	.01636	13.367
30	GG38J	.09163	105.24
31	CCV	3.7968	40.462
32	CCB	.00340	.01709
33	GG39HF	.00464	.00445
34	GG39H	.00254	.00434
35	GG6N6	.00882	.01918
36	GG6PJ	-.00327	.02211
37	GG6PL	.00453	.03789
38	GG6PP	.00512	.02474
39	GG6PR	.01093	.03544
40	GG66A	5.3337	13.008
41	GG812 5x	.20741	161.34
42	GG82E	.87619	S4651.3
43	CCV	3.8270	40.616
44	CCB	.00400	.02267
45	GG82F	.51843	H395.64
46	GG850	.02027	.10037
47	GG858	.64598	S2553.0
48	GHARJ	.03832	14.312
49	GHDK8B	L-.00056	L.00669
50	GHDK8C	1.2659	121.33
51	GHDK8	1.2722	116.90
52	GG8W4	.01385	8.7569
53	GG810	.02245	17.762

#	Sample Name	Ni	Fe
54	GG82C	.00637	.66247
55	CCV	3.7781	40.605
56	CCB	-.00175	.02996
57	GG82M	.00850	.76816
58	GG82V	.00490	.58992
59	GG83J	.01584	7.1876
60	GG83V	.00717	.60264
61	GG830	.00902	1.5376
62	GG834	.01093	2.2091
63	GG84A	.04928	15.011
64	GG84D	.01113	4.9470
65	GG84J	.00665	1.3893
66	GG84M	.00577	.51795
67	CCV1	3.8153	41.167
68	CCB1	.00016	.01076
69	GG84V	.02858	21.129
70	GG845	.00695	.33677
71	GG85C	.00367	.30117
72	GG85L	.00101	.70690
73	GG85Q	.00445	.28421
74	GG85Q 5X	.00730	.05699
75	GG3P3V 5X	.00867	.05982
76	ICSA	.00254	175.57
77	ICSAB	.82760	177.07
78	CCV1	3.8181	40.860
79	CCB1	.00268	.01397
80	BLK NI	.71270	6.6219
81	LCS NI	.69240	6.5303
82	262-1	.69690	6.6030
83	262-2	.68944	6.7220
84	262-3	.71019	6.6926
85	262-4	.69466	6.6077
86	262-5	.68209	6.6083
87	325-1	.68010	6.5629
88	325-1S	.68652	6.5033
89	325-1D	.67144	6.4597
90	CCV1	3.8274	40.713
91	CCB1	.00452	.02207
92	325-2	.67382	6.6144
93	325-3	.69063	6.6290
94	325-4	.69008	6.6241
95	325-5	.67297	6.5739
96	325-6	.68856	6.6073
97	325-8	.67137	7.3707
98	325-9	.67791	6.5145
99	GG3P3V 5X	.00439	.00871
100	CCV	3.7879	39.984
101	CCB	.00201	.03661

JB 6/8/04

STD 060704

W19

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	CALBLK	O608IE1	MULTI_E	06/08/04	09:29		X	IR
2	SLOW	O608IE1	MULTI_E	06/08/04	09:33		X	IR
3	SMED	O608IE1	MULTI_E	06/08/04	09:37		X	IR
4	SHIGH	O608IE1	MULTI_E	06/08/04	09:42		X	IR
5	CAL1	O608IE1	MULTI_E	06/08/04	09:46		X	IR
6	SLOW2	O608IE1	MULTI_E	06/08/04	09:50		X	IR
7	SMED2	O608IE1	MULTI_E	06/08/04	09:54		X	IR
8	SHIGH2	O608IE1	MULTI_E	06/08/04	09:57		X	IR
9	CAL2	O608IE1	MULTI_E	06/08/04	10:01		X	IR
10	ICV	O608IE1	MULTI_E	06/08/04	10:04	STL	Q	CONC
11	ICB	O608IE1	MULTI_E	06/08/04	10:09	STL	Q	CONC
12	CCV	O608IE1	MULTI_E	06/08/04	10:13	STL	Q	CONC
13	CCB	O608IE1	MULTI_E	06/08/04	10:18	STL	Q	CONC
14	CRI	O608IE1	MULTI_E	06/08/04	10:22	STL	Q	CONC
15	ICSA	O608IE1	MULTI_E	06/08/04	10:26	STL	Q	CONC
16	ICSAB	O608IE1	MULTI_E	06/08/04	10:31	STL	Q	CONC
17	GG7AF 5X	O608IE1	MULTI_E	06/08/04	10:41	STL	S	CONC
18	GF6XM 5X	O608IE1	MULTI_E	06/08/04	10:45	STL	S	CONC
19	CCV	O608IE1	MULTI_E	06/08/04	10:49	STL	Q	CONC
20	CCB	O608IE1	MULTI_E	06/08/04	10:54	STL	Q	CONC
21	GHLXNB	O608IE1	MULTI_E	06/08/04	11:16	STL	S	CONC
22	GHLXNC	O608IE1	MULTI_E	06/08/04	11:21	STL	S	CONC
23	GHJEA	O608IE1	MULTI_E	06/08/04	11:25	STL	S	CONC
24	GHJEAX	O608IE1	MULTI_E	06/08/04	11:29	STL	S	CONC
25	GHJEAS	O608IE1	MULTI_E	06/08/04	11:34	STL	S	CONC
26	GHJEAV 5X	O608IE1	MULTI_E	06/08/04	11:38	STL	S	CONC
27	GHJEQ	O608IE1	MULTI_E	06/08/04	11:42	STL	S	CONC
28	GHJET	O608IE1	MULTI_E	06/08/04	11:47	STL	S	CONC
29	GHJEX	O608IE1	MULTI_E	06/08/04	11:51	STL	S	CONC
30	GHJEO	O608IE1	MULTI_E	06/08/04	11:55	STL	S	CONC
31	CCV	O608IE1	MULTI_E	06/08/04	12:00	STL	Q	CONC
32	CCB	O608IE1	MULTI_E	06/08/04	12:04	STL	Q	CONC
33	GHJE1	O608IE1	MULTI_E	06/08/04	12:08	STL	S	CONC
34	GHJE3	O608IE1	MULTI_E	06/08/04	12:13	STL	S	CONC
35	GHJE5	O608IE1	MULTI_E	06/08/04	12:22	STL	S	CONC
36	GHJE7	O608IE1	MULTI_E	06/08/04	12:26	STL	S	CONC
37	GHJE8	O608IE1	MULTI_E	06/08/04	12:31	STL	S	CONC
38	GHJFA	O608IE1	MULTI_E	06/08/04	12:35	STL	S	CONC
39	GHJFC	O608IE1	MULTI_E	06/08/04	12:39	STL	S	CONC
40	GHJFD	O608IE1	MULTI_E	06/08/04	12:44	STL	S	CONC
41	GHJFF	O608IE1	MULTI_E	06/08/04	12:48	STL	S	CONC
42	GHJFH	O608IE1	MULTI_E	06/08/04	12:52	STL	S	CONC
43	CCV	O608IE1	MULTI_E	06/08/04	12:57	STL	Q	CONC
44	CCB	O608IE1	MULTI_E	06/08/04	13:01	STL	Q	CONC
45	GHJFJ	O608IE1	MULTI_E	06/08/04	13:05	STL	S	CONC
46	BLANK NI	O608IE1	MULTI_E	06/08/04	13:10	STL	S	CONC
47	LCS NI	O608IE1	MULTI_E	06/08/04	13:14	STL	S	CONC
48	262-1 NI	O608IE1	MULTI_E	06/08/04	13:18	STL	S	CONC
49	262-2 NI	O608IE1	MULTI_E	06/08/04	13:23	STL	S	CONC
50	262-3 NI	O608IE1	MULTI_E	06/08/04	13:27	STL	S	CONC
51	262-4 NI	O608IE1	MULTI_E	06/08/04	13:32	STL	S	CONC
52	325-1 NI	O608IE1	MULTI_E	06/08/04	13:36	STL	S	CONC
53	325-1S NI	O608IE1	MULTI_E	06/08/04	13:40	STL	S	CONC



#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	325-1D NI	O608IE1	MULTI_E	06/08/04	13:45	STL	S	CONC
55	CCV	O608IE1	MULTI_E	06/08/04	13:49	STL	Q	CONC
56	CCB	O608IE1	MULTI_E	06/08/04	13:53	STL	Q	CONC
57	325-2 NI	O608IE1	MULTI_E	06/08/04	13:58	STL	S	CONC
58	325-3 NI	O608IE1	MULTI_E	06/08/04	14:02	STL	S	CONC
59	325-4 NI	O608IE1	MULTI_E	06/08/04	14:08	STL	S	CONC
60	325-5 NI	O608IE1	MULTI_E	06/08/04	14:13	STL	S	CONC
61	325-6 NI	O608IE1	MULTI_E	06/08/04	14:17	STL	S	CONC
62	325-8 NI	O608IE1	MULTI_E	06/08/04	14:21	STL	S	CONC
63	325-9 NI	O608IE1	MULTI_E	06/08/04	14:26	STL	S	CONC
64	CCB	O608IE1	MULTI_E	06/08/04	14:30	STL	Q	CONC
65	CCB	O608IE1	MULTI_E	06/08/04	14:34	STL	Q	CONC
66	CCV	O608IE1	MULTI_E	06/08/04	15:06	STL	Q	CONC
67	325-9 NI	O608IE1	MULTI_E	06/08/04	15:11	STL	S	CONC
68	CCV	O608IE1	MULTI_E	06/08/04	15:15	STL	Q	CONC
69	CCB	O608IE1	MULTI_E	06/08/04	15:20	STL	Q	CONC

#	Sample Name	Ni
1	CALBLK	.00769
2	SLOW	.1516
3	SMED	.7416
4	SHIGH	1.4914
5	CAL1	14.2024
6	SLOW2	
7	SMED2	
8	SHIGH2	
9	CAL2	
10	ICV	4.8024
11	ICB	-.00152
12	CCV	3.8836
13	CCB	.00034
14	CRI	.07607
15	ICSA	.00262
16	ICSAB	<i>4/8</i> <i>6/18/04</i> <del>0</del> .79567
17	GG7AF 5X	.03403
18	GF6XM 5X	.01550
19	CCV	3.8495
20	CCB	-.00020
21	GHLXNB	L-.00281
22	GHLXNC	L.49740
23	GHJEA	-.00100
24	GHJEAX	-.00130
25	GHJEAS	.23676
26	GHJEAV 5X	-.00060
27	GHJEQ	-.00618
28	GHJET	-.00190
29	GHJEX	.00000
30	GHJE0	-.00466
31	CCV	3.8498
32	CCB	-.00082
33	GHJE1	.00042
34	GHJE3	-.00625
35	GHJE5	.03154
36	GHJE7	.01633
37	GHJE8	.00635
38	GHJFA	.05714
39	GHJFC	.04483
40	GHJFD	.02596
41	GHJFF	-.00286
42	GHJFH	.01406
43	CCV	3.8656
44	CCB	-.00007
45	GHJFJ	.01950
46	BLANK NI	1.4716
47	LCS NI	1.6299
48	262-1 NI	1.4141
49	262-2 NI	1.5211
50	262-3 NI	1.5400
51	262-4 NI	1.5156
52	<del>325-1 NI</del> <i>3102-5 NI</i>	1.4998
53	<del>325-18 NI</del> <i>325-1 NI</i>	1.4357

#	Sample Name	Ni
54	<del>325-1D</del> NI 325-1S N7	1.3885
55	CCV	3.8268
56	CCB	.00042
57	<del>325-2</del> NI 325-1D NI	1.5246
58	325-3 NI 325-2	1.5534
59	325-4 NI 325-3	1.5991
60	325-5 NI 325-4	1.5965
61	325-6 NI 325-5	1.4214
62	325-8 NI 325-6	1.6200
63	<del>325-9</del> NI 325-6	1.6499
64	CCB	.00035
65	CCB	<del>.00027</del>
66	CCV	3.8160
67	325-9 NI	1.7039
68	CCV	3.7973
69	CCB	-.00075

7B 6/8/04 Autosampler error

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	CALBLK	O609IT1	MULTI	06/09/04	09:17		X	IR
2	SLOW	O609IT1	MULTI	06/09/04	09:22		X	IR
3	SMED	O609IT1	MULTI	06/09/04	09:26		X	IR
4	SHIGH	O609IT1	MULTI	06/09/04	09:30		X	IR
5	CAL1	O609IT1	MULTI	06/09/04	09:35		X	IR
6	SLOW2	O609IT1	MULTI	06/09/04	09:39		X	IR
7	SMED2	O609IT1	MULTI	06/09/04	09:43		X	IR
8	SHIGH2	O609IT1	MULTI	06/09/04	09:47		X	IR
9	CAL2	O609IT1	MULTI	06/09/04	09:51		X	IR
10	ICV	O609IT1	MULTI	06/09/04	09:55	STL	Q	CONC
11	ICB	O609IT1	MULTI	06/09/04	09:59	STL	Q	CONC
12	CCV	O609IT1	MULTI	06/09/04	10:03	STL	Q	CONC
13	CCB	O609IT1	MULTI	06/09/04	10:08	STL	Q	CONC
14	CRI	O609IT1	MULTI	06/09/04	10:12	STL	Q	CONC
15	ICSA	O609IT1	MULTI	06/09/04	10:17	STL	Q	CONC
16	ICSAB	O609IT1	MULTI	06/09/04	10:21	STL	Q	CONC
17	GHHJRB	O609IT1	MULTI	06/09/04	10:52	STL	S	CONC
18	GHHPM 10X	O609IT1	MULTI	06/09/04	11:01	STL	S	CONC
19	GHHPM 50X	O609IT1	MULTI	06/09/04	11:05	STL	S	CONC
20	GG308 2X	O609IT1	MULTI	06/09/04	11:10	STL	S	CONC
21	GG31X 2X	O609IT1	MULTI	06/09/04	11:14	STL	S	CONC
22	GG312 5X	O609IT1	MULTI	06/09/04	11:18	STL	S	CONC
23	GG7MT 2X	O609IT1	MULTI	06/09/04	11:23	STL	S	CONC
24	CCV	O609IT1	MULTI	06/09/04	11:27	STL	Q	CONC
25	CCB	O609IT1	MULTI	06/09/04	11:32	STL	Q	CONC
26	GHRVQB	O609IT1	MULTI	06/09/04	13:52	STL	S	CONC
27	GHRVQC	O609IT1	MULTI	06/09/04	13:56	STL	S	CONC
28	GHPJN	O609IT1	MULTI	06/09/04	14:01	STL	S	CONC
29	GHPJNS	O609IT1	MULTI	06/09/04	14:05	STL	S	CONC
30	GHPJND	O609IT1	MULTI	06/09/04	14:10	STL	S	CONC
31	GHPJNV 5X	O609IT1	MULTI	06/09/04	14:14	STL	S	CONC
32	GHPKM	O609IT1	MULTI	06/09/04	14:18	STL	S	CONC
33	ICSA	O609IT1	MULTI	06/09/04	14:23	STL	Q	CONC
34	ICSAB	O609IT1	MULTI	06/09/04	14:27	STL	Q	CONC
35	CCV	O609IT1	MULTI	06/09/04	14:35	STL	Q	CONC
36	CCB	O609IT1	MULTI	06/09/04	14:39	STL	Q	CONC
37	GHRVCB	O609IT1	MULTI	06/09/04	14:44	STL	S	CONC
38	GHRVCC	O609IT1	MULTI	06/09/04	14:48	STL	S	CONC
39	GHAGP 10X	O609IT1	MULTI	06/09/04	14:52	STL	S	CONC
40	GHH3R	O609IT1	MULTI	06/09/04	14:57	STL	S	CONC
41	GHH3RF	O609IT1	MULTI	06/09/04	15:01	STL	S	CONC
42	GHH46	O609IT1	MULTI	06/09/04	15:05	STL	S	CONC
43	GHH46F	O609IT1	MULTI	06/09/04	15:10	STL	S	CONC
44	GHM5A	O609IT1	MULTI	06/09/04	15:14	STL	S	CONC
45	GHM5AS	O609IT1	MULTI	06/09/04	15:18	STL	S	CONC
46	GHM5AD	O609IT1	MULTI	06/09/04	15:23	STL	S	CONC
47	CCV	O609IT1	MULTI	06/09/04	15:27	STL	Q	CONC
48	CCB	O609IT1	MULTI	06/09/04	15:32	STL	Q	CONC
49	GHM5AV 5X	O609IT1	MULTI	06/09/04	15:36	STL	S	CONC
50	GHM5Q	O609IT1	MULTI	06/09/04	15:40	STL	S	CONC
51	GHQV5	O609IT1	MULTI	06/09/04	15:45	STL	S	CONC
52	GHQV5F	O609IT1	MULTI	06/09/04	15:49	STL	S	CONC
53	GHQ0M	O609IT1	MULTI	06/09/04	15:53	STL	S	CONC

#	Sample Name	Ni2316	Fe
54	GHQ0MF	.00427	.00496
55	GHQ1W	.00719	8.8232
56	GHQ1WF	.00230	.10233
57	GHJ07B	.00195	-.01187
58	GHRTXC	1.0221	1.1162
59	CCV	3.8990	40.274
60	CCB	.00111	.00797
61	GHHPM	H74.435	-.01074
62	GHJL1	.01802	.02929
63	GHJL1S	.51914	1.1028
64	GHJL1D	.52899	1.1161
65	GHJL1V 5X	.00309	.00181
66	GHJNR	.01189	.01242
67	GHJQ5	.00650	.02692
68	GHP2AB	.00175	-.00914
69	GHR TTC	1.0142	1.1112
70	GHK5R	.00274	.01600
71	CCV	3.9032	40.304
72	CCB	.00240	.01260
73	GHK5RX	.00235	.01627
74	GHK5RS	.51222	1.0963
75	GHK5RV 5X	.00141	.00675
76	GHK8K	.01693	1.0910
77	BLK INT NI	H.19245	H1.5887
78	LCS INT NI	L.18290	H1.5250
79	325-010 NI	.18953	5.8784
80	325-010X NI	.17633	5.5100
81	BLK FIN NI	H1.6606	.01276
82	LCS FIN NI	H1.7676	1.0219
83	CCV	3.9121	40.338
84	CCB	.00210	.01659
85	325-010 NI	.36420	.01897
86	325-010X NI	.33592	.01375
87	CCV	3.9177	40.392
88	CCB	.00230	.01514

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	GHQ0MF	0609IT1	MULTI	06/09/04	15:58	STL	S	CONC
55	GHQ1W	0609IT1	MULTI	06/09/04	16:02	STL	S	CONC
56	GHQ1WF	0609IT1	MULTI	06/09/04	16:07	STL	S	CONC
57	GHJ07B	0609IT1	MULTI	06/09/04	16:11	STL	S	CONC
58	GHRTXC	0609IT1	MULTI	06/09/04	16:15	STL	S	CONC
59	CCV	0609IT1	MULTI	06/09/04	16:20	STL	Q	CONC
60	CCB	0609IT1	MULTI	06/09/04	16:24	STL	Q	CONC
61	GHPM	0609IT1	MULTI	06/09/04	16:28	STL	S	CONC
62	GHJL1	0609IT1	MULTI	06/09/04	16:33	STL	S	CONC
63	GHJL1S	0609IT1	MULTI	06/09/04	16:37	STL	S	CONC
64	GHJL1D	0609IT1	MULTI	06/09/04	16:42	STL	S	CONC
65	GHJL1V 5X	0609IT1	MULTI	06/09/04	16:46	STL	S	CONC
66	GHJNR	0609IT1	MULTI	06/09/04	16:50	STL	S	CONC
67	GHJQ5	0609IT1	MULTI	06/09/04	16:55	STL	S	CONC
68	GHP2AB	0609IT1	MULTI	06/09/04	16:59	STL	S	CONC
69	GHRTTC	0609IT1	MULTI	06/09/04	17:03	STL	S	CONC
70	GHK5R	0609IT1	MULTI	06/09/04	17:08	STL	S	CONC
71	CCV	0609IT1	MULTI	06/09/04	17:12	STL	Q	CONC
72	CCB	0609IT1	MULTI	06/09/04	17:16	STL	Q	CONC
73	GHK5RX	0609IT1	MULTI	06/09/04	17:21	STL	S	CONC
74	GHK5RS	0609IT1	MULTI	06/09/04	17:25	STL	S	CONC
75	GHK5RV 5X	0609IT1	MULTI	06/09/04	17:30	STL	S	CONC
76	GHK8K	0609IT1	MULTI	06/09/04	17:34	STL	S	CONC
77	BLK INT NI	0609IT1	MULTI	06/09/04	17:38	STL	S	CONC
78	LCS INT NI	0609IT1	MULTI	06/09/04	17:43	STL	S	CONC
79	325-010 NI	0609IT1	MULTI	06/09/04	17:47	STL	S	CONC
80	325-010X NI	0609IT1	MULTI	06/09/04	17:51	STL	S	CONC
81	BLK FIN NI	0609IT1	MULTI	06/09/04	17:56	STL	S	CONC
82	LCS FIN NI	0609IT1	MULTI	06/09/04	18:00	STL	S	CONC
83	CCV	0609IT1	MULTI	06/09/04	18:05	STL	Q	CONC
84	CCB	0609IT1	MULTI	06/09/04	18:09	STL	Q	CONC
85	325-010 NI	0609IT1	MULTI	06/09/04	18:13	STL	S	CONC
86	325-010X NI	0609IT1	MULTI	06/09/04	18:18	STL	S	CONC
87	CCV	0609IT1	MULTI	06/09/04	18:22	STL	Q	CONC
88	CCB	0609IT1	MULTI	06/09/04	18:26	STL	Q	CONC

lots: F4F050153 F4F030156  
F4E280223 040519  
070193  
030120  
030227  
030239  
040117  
RAD

#	Sample Name	Ni2316	Fe
1	CALBLK	-.05799	-.01599
2	SLOW	.97795	
3	SMED	4.98125	
4	SHIGH	9.9995	
5	CAL1	99.4105	
6	SLOW2		17.2631
7	SMED2		34.6758
8	SHIGH2		86.5082
9	CAL2		170.754
10	ICV	4.8939	50.655
11	ICB	.00022	.00352
12	CCV	3.9594	40.978
13	CCB	.00081	-.00114
14	CRI	.08103	.20180
15	ICSA	.00358	186.97
16	ICSAB	.90261	186.87
17	GHHJRB	L.00690	L.03800
18	GHHPM 10X	H80.101	.80672
19	GHHPM 50X	16.829	.14777
20	GG308 2X	.07213	37.019
21	GG31X 2X	.02633	25.093
22	GG312 5X	.01461	15.131
23	GG7MT 2X	.05239	54.002
24	CCV	3.9360	40.766
25	CCB	.00121	.00645
26	GHRVQB	.00324	-.01957
27	GHRVQC	L.50970	L.54574
28	GHPJN	.00818	.87149
29	GHPJNS	.26989	1.6486
30	GHPJND	.26727	1.5250
31	GHPJNV 5X	.00185	.16548
32	GHPKM	.01056	1.7201
33	ICSA	.00512	185.94
34	ICSAB	.89712	186.06
35	CCV	3.9337	40.679
36	CCB	.00081	.00109
37	GHRVCB	.00235	-.00241
38	GHRVCC	1.0040	1.1235
39	GHAGP 10X	1.0832	87.887
40	GHH3R	.00180	.00260
41	GHH3RF	.00170	-.00809
42	GHH46	.00200	-.00558
43	GHH46F	.00121	.00139
44	GHM5A	.01604	.91365
45	GHM5AS	.51163	1.9415
46	GHM5AD	.51954	1.9642
47	CCV	3.9157	40.437
48	CCB	.00086	.00250
49	GHM5AV 5X	.00378	.18073
50	GHM5Q	.01219	.79992
51	GHQV5	.00393	.38475
52	GHQV5F	.00403	-.00112
53	GHQ0M	.10660	81.643



**STL**

**QUENCH CURVE**

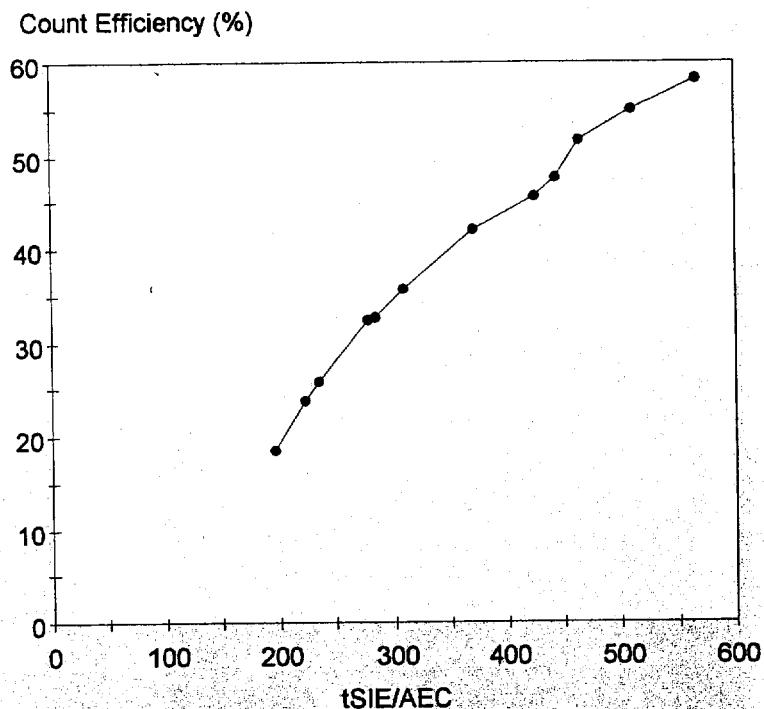
**Ni-59,63**

**3170**

**Expires 05-26-04**



Quench Curve - nickel\_59

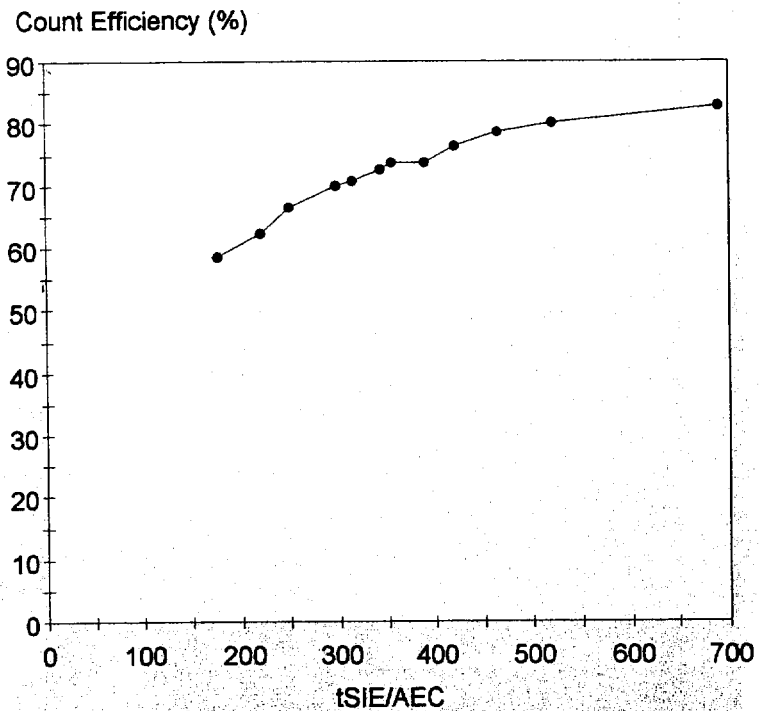


Last Edit Date: 06/03/2003

Quench Indicator: tSIE/AEC

Included	tSIE/AEC	Count Efficiency (%)
Yes	194.19	18.44
Yes	222.92	23.85
Yes	234.20	25.78
Yes	277.62	32.53
Yes	283.92	32.54
Yes	308.62	35.70
Yes	371.94	42.05
Yes	424.67	45.65
Yes	444.20	47.70
Yes	465.72	51.69
Yes	510.45	55.01
Yes	566.40	58.28

## Quench Curve - ni63\_5\_27\_03



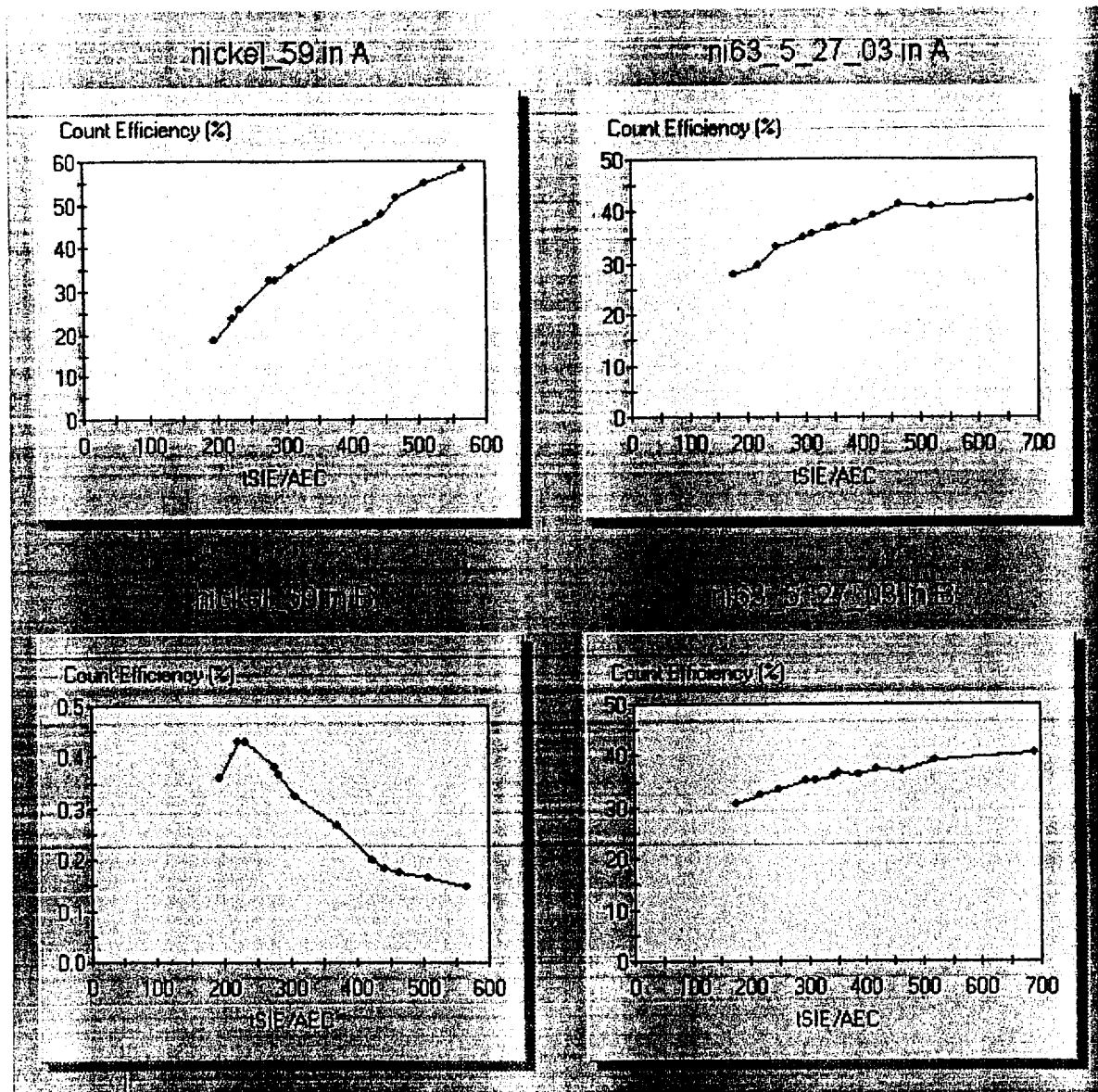
Last Edit Date: 07/25/2003

Quench Indicator: tSIE/AEC

Included	tSIE/AEC	Count Efficiency (%)
Yes	176.97	58.48
Yes	219.95	62.15
Yes	250.65	66.64
Yes	297.06	69.96
Yes	313.76	70.66
Yes	344.90	72.70
Yes	355.79	73.68
Yes	390.85	73.75
Yes	420.88	76.37
Yes	464.64	78.50
Yes	521.83	80.17
Yes	691.39	82.97

ben hicks

Cycle 1 Results  
Quench Curve Block Data



Date Acquired: 06/02/2003  
 Date Modified: 08/04/2003  
 nickel\_59 in A

Date Acquired: 05/27/2003  
 Date Modified: 08/04/2003  
 ni63\_5\_27\_03 in A

tSIE/AEC	Count Efficiency (%)	tSIE/AEC	Count Efficiency (%)
566.40	58.24	691.39	42.38
510.45	54.96	521.83	40.95
465.72	51.65	464.64	41.33
444.20	47.67	420.88	38.97
424.67	45.62	390.85	37.51
371.94	42.00	355.79	36.93
308.62	35.66	344.90	36.68
283.92	32.51	313.76	35.43
277.62	32.49	297.06	34.74

Protocol# 46 - dual label nickel.lsa

User: Default

ben hicks

234.20	25.74	250.65	33.03
222.92	23.82	219.95	29.65
194.19	18.41	176.97	27.81

nickel\_59 in B

ni63\_5\_27\_03 in B

tSIE/AEC	Count Efficiency (%)	tSIE/AEC	Count Efficiency (%)
566.40	0.15	691.39	40.55
510.45	0.17	521.83	39.18
465.72	0.17	464.64	37.14
444.20	0.18	420.88	37.36
424.67	0.20	390.85	36.20
371.94	0.27	355.79	36.71
308.62	0.32	344.90	35.99
283.92	0.37	313.76	35.20
277.62	0.38	297.06	35.19
234.20	0.43	250.65	33.58
222.92	0.43	219.95	32.47
194.19	0.36	176.97	30.64

Table: Quench Curve for Ni-59, Ni63

Vial#	Ultima a/b mL	D.I. Water mL	3N HNO3 mL	Tea drops	Nitrometh mL
1	19	3			
2	20	2			
3	21	1			
4	19			3	
5	20			2	
6	21			1	
8	19		1.5		1.5
9	19		3		1
10	19		2.5		3
11	19		2		6
12	19		2		10
7	Background				

Ni-59 standard used is 03-022 2,276.4

Ni-63 standard used is 03-032 21,643.4 dpm/mL

0.1 mL of Ni-59, Ni-63 added to all standards

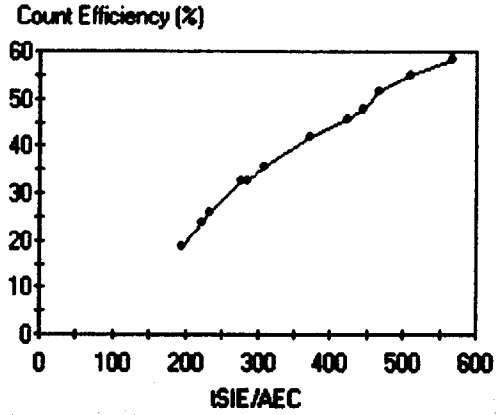
Fischer brand disposable pipette used to determine drop

8/2/03

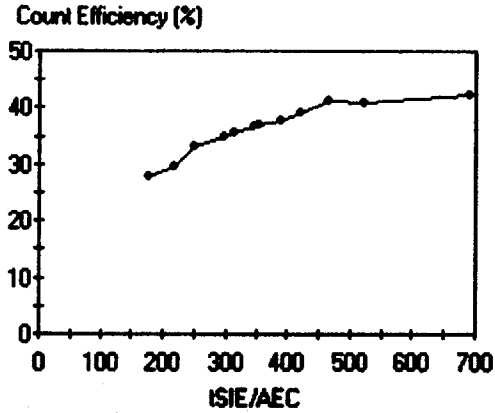
Name: Benjamin J. K.S.

STL  
Denver

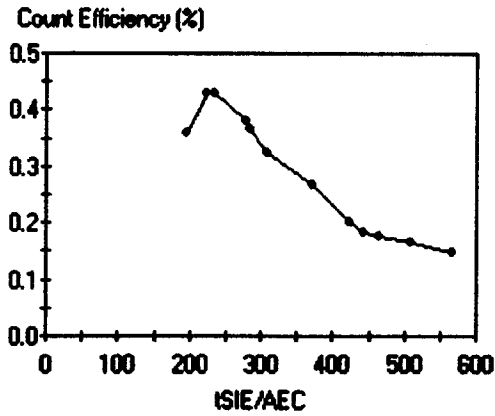
nickel\_59 in A



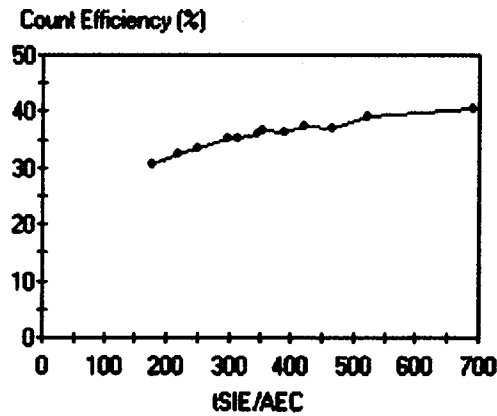
ni63\_5\_27\_03 in A



nickel\_59 in B



ni63\_5\_27\_03 in B



Date Acquired: 06/02/2003  
Date Modified: 08/04/2003

Date Acquired: 05/27/2003  
Date Modified: 08/04/2003

1585

STL Denver

6/10/04 7:52:48 AM

QuantaSmart (TM) - 1.31 - Serial# 429670

Protocol# 4 - Dual Ni Samples 4.lsa

Page # 1

User: Chemist

Cycle 1 Results  
Quench Curve Block Data

1586

Protocol# 4 - Dual Ni Samples 4.lsa

User: Chemist

STP Denver

nickel\_59 in A

ni63\_5\_27\_03 in A

tsIE/AEC	Count	Efficiency (%)	tsIE/AEC	Count	Efficiency (%)
566.40	58.24		691.39	42.38	
510.45	54.96		521.83	40.95	
465.72	51.65		464.64	41.33	
444.20	47.67		420.88	38.97	
424.67	45.62		390.85	37.51	
371.94	42.00		355.79	36.93	
308.62	35.66		344.90	36.68	
283.92	32.51		313.76	35.43	
277.62	32.49		297.06	34.74	
234.20	25.74		250.65	33.03	
222.92	23.82		219.95	29.65	
194.19	18.41		176.97	27.81	

nickel\_59 in B

ni63\_5\_27\_03 in B

tsIE/AEC	Count	Efficiency (%)	tsIE/AEC	Count	Efficiency (%)
566.40	0.15		691.39	40.55	
510.45	0.17		521.83	39.18	
465.72	0.17		464.64	37.14	
444.20	0.18		420.88	37.36	
424.67	0.20		390.85	36.20	
371.94	0.27		355.79	36.71	
308.62	0.32		344.90	35.99	
283.92	0.37		313.76	35.20	
277.62	0.38		297.06	35.19	
234.20	0.43		250.65	33.58	
222.92	0.43		219.95	32.47	
194.19	0.36		176.97	30.64	

S#	SMPL ID	C. T.	CPMA	CPMB	DPM1	DPM2	TIME	DATE	Eff1A	Eff1B	Eff2A
Eff2B	tsIE LUM	NOTE									
1	BKG	30	1.1951e+000	3.0080e+000	0.0000e+000	8.9610e+000	5:18:37 AM	6/10/04	29.5	0.4	33.3
33.8	258.20 18										
2	F4F080000-269B	30	2.3730e+000	2.0270e+000	1.3021e+000	5.9770e+000	5:49:31 AM	6/10/04	29.4	0.4	33.3
33.8	257.77 16										
3	F4F080000-269C	30	1.8019e+002	1.2284e+002	3.6930e+002	3.8595e+002	6:20:23 AM	6/10/04	18.9	0.4	28.6
31.5	196.56 0										
4	D4E210325-010	30	1.8786e+000	2.8367e+000	0.0000e+000	9.1450e+000	6:51:17 AM	6/10/04	17.5	0.3	28.3
31.2	189.48 15	E									
5	D4E210325-010X	30	7.2605e-001	2.7140e+000	0.0000e+000	8.4859e+000	7:22:09 AM	6/10/04	22.8	0.4	29.5
32.4	217.41 21										

1587





**STL**

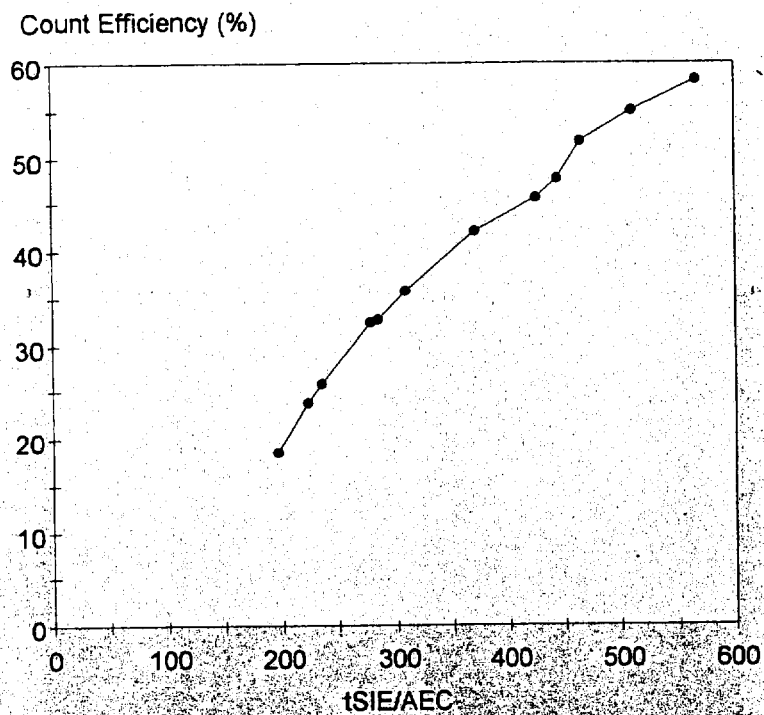
**QUENCH CURVE**

**Ni-59,63**

**3170**

**Expires 05-26-04**

Quench Curve - nickel\_59

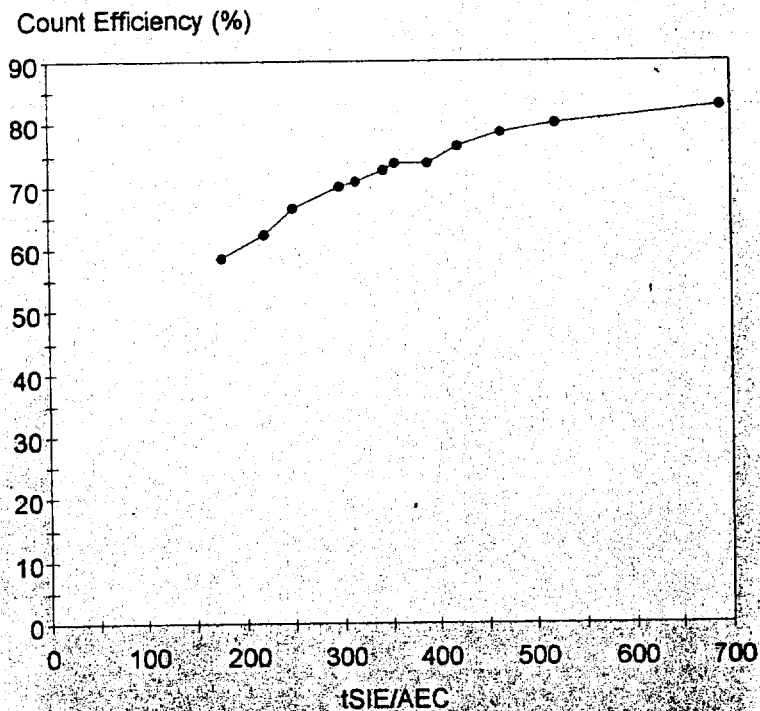


Last Edit Date: 06/03/2003

Quench Indicator: tSIE/AEC

Included	tSIE/AEC	Count Efficiency (%)
Yes	194.19	18.44
Yes	222.92	23.85
Yes	234.20	25.78
Yes	277.62	32.53
Yes	283.92	32.54
Yes	308.62	35.70
Yes	371.94	42.05
Yes	424.67	45.65
Yes	444.20	47.70
Yes	465.72	51.69
Yes	510.45	55.01
Yes	566.40	58.28

Quench Curve - ni63\_5\_27\_03



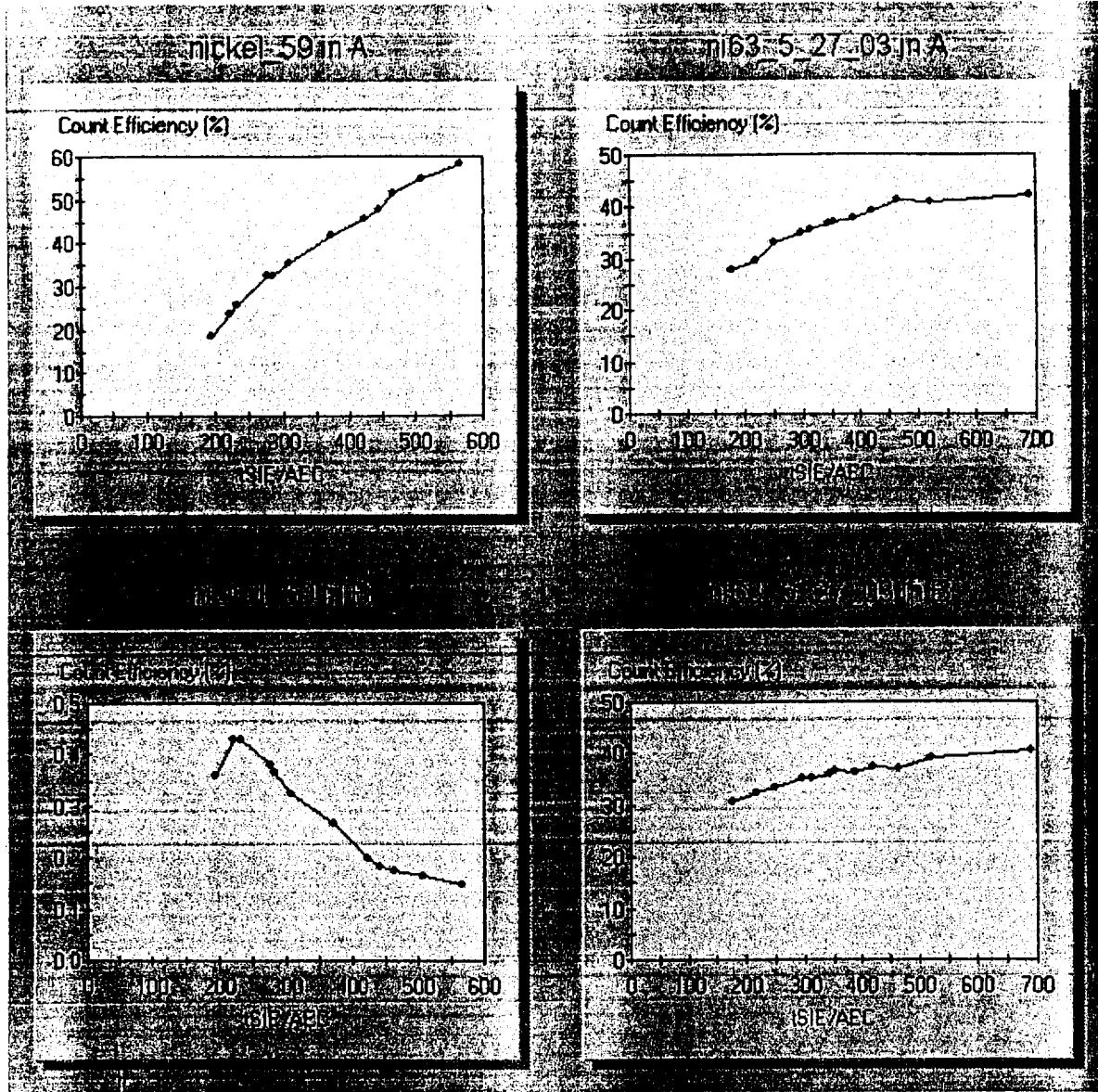
Last Edit Date: 07/25/2003

Quench Indicator: tSIE/AEC

Included	tSIE/AEC	Count Efficiency (%)
Yes	176.97	58.48
Yes	219.95	62.15
Yes	250.65	66.64
Yes	297.06	69.96
Yes	313.76	70.66
Yes	344.90	72.70
Yes	355.79	73.68
Yes	390.85	73.75
Yes	420.88	76.37
Yes	464.64	78.50
Yes	521.83	80.17
Yes	691.39	82.97

ben hicks

Cycle 1 Results  
Quench Curve Block Data



Date Acquired: 06/02/2003  
 Date Modified: 08/04/2003  
 nickel\_59 in A

Date Acquired: 05/27/2003  
 Date Modified: 08/04/2003  
 ni63\_5\_27\_03 in A

tSIE/AEC	Count Efficiency (%)
566.40	58.24
510.45	54.96
465.72	51.65
444.20	47.67
424.67	45.62
371.94	42.00
308.62	35.66
283.92	32.51
277.62	32.49

tSIE/AEC	Count Efficiency (%)
691.39	42.38
521.83	40.95
464.64	41.33
420.83	38.97
390.85	37.51
355.79	36.93
344.90	36.68
313.76	35.43
297.06	34.74

Protocol# 46 - dual label nickel.lsa

User: Default

ben hicks

234.20	25.74	250.65	33.03
222.92	23.82	219.95	29.65
194.19	18.41	176.97	27.81

nickel\_59 in B

ni63\_5\_27\_03 in B

tSIE/AEC	Count Efficiency (%)	tSIE/AEC	Count Efficiency (%)
566.40	0.15	691.39	40.55
510.45	0.17	521.83	39.18
465.72	0.17	464.64	37.14
444.20	0.18	420.88	37.36
424.67	0.20	390.85	36.20
371.94	0.27	355.79	36.71
308.62	0.32	344.90	35.99
283.92	0.37	313.76	35.20
277.62	0.38	297.06	35.19
234.20	0.43	250.65	33.58
222.92	0.43	219.95	32.47
194.19	0.36	176.97	30.64

Table: Quench Curve for Ni-59, Ni63

Vial#	Ultima a/b mL	D.I. Water mL	3N HNO3 mL	Tea drops	Nitrometh mL
1	19	3			
2	20	2			
3	21	1			
4	19			3	
5	20			2	
6	21			1	
8	19		1.5		1.5
9	19		3	1	
10	19		2.5	3	
11	19		2	6	
12	19		2	10	
7	Background				

Ni-59 standard used is 03-022 2,276.4

Ni-63 standard used is 03-032 21,643.4 dpm/mL

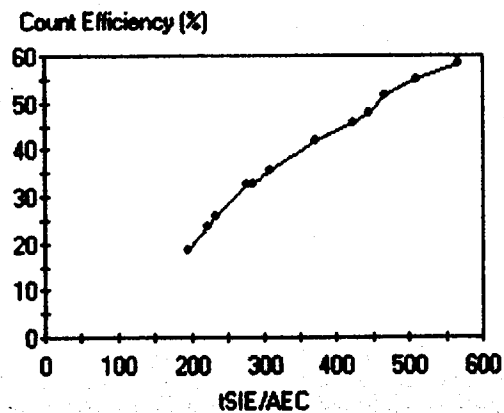
0.1 mL of Ni-59, Ni-63 added to all standards

Fischer brand disposable pipette used to determine drop

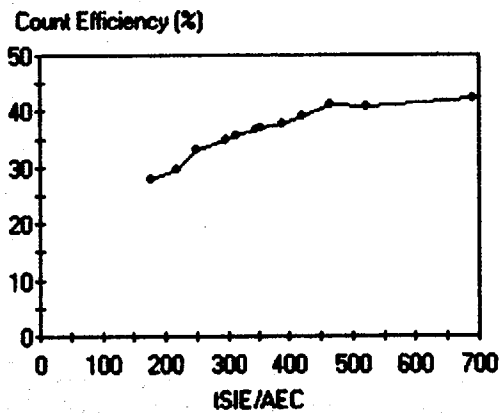
8/2/03

Name: Benjamin J. Hill

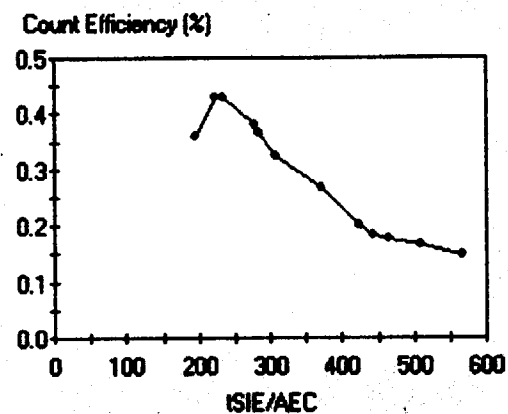
nickel\_59 in A



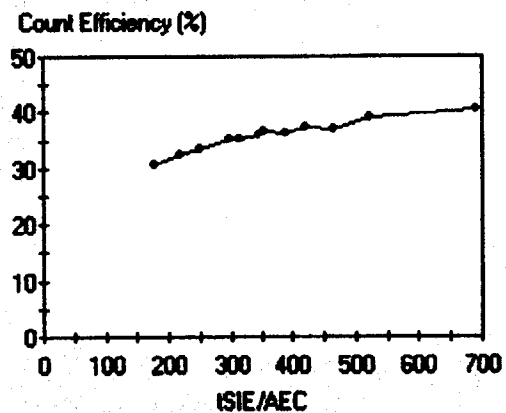
ni63\_5\_27\_03 in A



nickel\_59 in B



ni63\_5\_27\_03 in B



Date Acquired: 06/02/2003  
Date Modified: 08/04/2003

Date Acquired: 05/27/2003  
Date Modified: 08/04/2003

Protocol# 5 - Dual Ni Samples 5.lsa

User: Chemist

6	D4E190262-003	30	2.4342e+000	2.4489e+000	0.0000e+000	6.5732e+000	12:43:37 PM	6/4/04	47.2	0.2	40.0
37.3	439.44 14										
7	D4E190262-004	30	1.9165e+000	2.0501e+000	0.0000e+000	5.5039e+000	1:14:27 PM	6/4/04	47.1	0.2	40.0
37.3	439.12 17										
8	D4E190262-005	30	1.8534e+000	2.1133e+000	0.0000e+000	5.6678e+000	1:45:18 PM	6/4/04	46.2	0.2	39.5
37.3	430.57 18										
9	D4E210325-001	30	2.0699e+000	2.4301e+000	0.0000e+000	6.5102e+000	2:16:09 PM	6/4/04	45.4	0.2	39.0
37.4	421.77 15										
10	D4E210325-001D	30	3.0422e+002	1.3185e+002	3.4442e+002	3.5215e+002	2:46:59 PM	6/4/04	47.4	0.2	40.1
37.3	441.27 0										
11	D4E210325-001S	30	3.1645e+002	1.3401e+002	3.6665e+002	3.5779e+002	3:17:49 PM	6/4/04	47.3	0.2	40.0
37.3	440.31 0										
12	D4E210325-002	30	2.3133e+000	1.5385e+000	1.5036e+000	4.1142e+000	3:48:41 PM	6/4/04	46.0	0.2	39.4
37.3	428.79 19										
13	D4E210325-003	30	1.7315e+000	1.9018e+000	0.0000e+000	5.1051e+000	4:19:36 PM	6/4/04	47.0	0.2	39.9
37.3	437.60 19										
14	D4E210325-004	30	1.6257e+000	2.4077e+000	0.0000e+000	6.5463e+000	4:50:26 PM	6/4/04	44.4	0.2	38.3
36.8	407.52 17										
15	D4E210325-005	30	2.5192e+000	2.5474e+000	0.0000e+000	6.8500e+000	5:21:17 PM	6/4/04	49.1	0.2	40.6
37.2	451.88 13										
16	D4E210325-006	30	1.9824e+000	2.4176e+000	0.0000e+000	6.4780e+000	5:52:08 PM	6/4/04	45.3	0.2	39.0
37.4	420.71 16										
17	D4E210325-008	30	1.9451e+000	2.1978e+000	0.0000e+000	5.9119e+000	6:23:00 PM	6/4/04	49.0	0.2	40.6
37.2	451.59 19										
18	D4E210325-009	30	1.8188e+000	2.6025e+000	0.0000e+000	6.9921e+000	6:53:51 PM	6/4/04	47.0	0.2	39.9
37.3	437.83 16										



Protocol# 5 - Dual Ni Samples 5.lsa

User: Chemist

nickel\_59 in A

ni63\_5\_27\_03 in A

tsIE/AEC	Count	Efficiency (%)	tsIE/AEC	Count	Efficiency (%)
566.40	58.24		691.39	42.38	
510.45	54.96		521.83	40.95	
465.72	51.65		464.64	41.33	
444.20	47.67		420.88	38.97	
424.67	45.62		390.85	37.51	
371.94	42.00		355.79	36.93	
308.62	35.66		344.90	36.68	
283.92	32.51		313.76	35.43	
277.62	32.49		297.06	34.74	
234.20	25.74		250.65	33.03	
222.92	23.82		219.95	29.65	
194.19	18.41		176.97	27.81	

nickel\_59 in B

ni63\_5\_27\_03 in B

tsIE/AEC	Count	Efficiency (%)	tsIE/AEC	Count	Efficiency (%)
566.40	0.15		691.39	40.55	
510.45	0.17		521.83	39.18	
465.72	0.17		464.64	37.14	
444.20	0.18		420.88	37.36	
424.67	0.20		390.85	36.20	
371.94	0.27		355.79	36.71	
308.62	0.32		344.90	35.99	
283.92	0.37		313.76	35.20	
277.62	0.38		297.06	35.19	
234.20	0.43		250.65	33.58	
222.92	0.43		219.95	32.47	
194.19	0.36		176.97	30.64	

S#	SMPL ID	C. T.	CPMA	CPMB	DPM1	DPM2	TIME	DATE	Eff1A	Eff1B	Eff2A
Eff2B	tsIE LUM	NOTE									
1	BKG	30	1.0937e+000	2.7542e+000	0.0000e+000	8.4883e+000	10:09:23 AM	6/4/04	24.6	0.4	30.5
32.8	227.71 18										
2	F4F020000-153B	30	1.8635e+000	2.4365e+000	0.0000e+000	6.5358e+000	10:40:16 AM	6/4/04	46.0	0.2	39.4
37.3	428.30 18										
3	F4F020000-153C	30	3.3899e+002	1.4968e+002	3.9664e+002	3.9886e+002	11:11:06 AM	6/4/04	45.9	0.2	39.3
37.3	427.54 0										
4	D4E190262-001	30	1.4960e+000	3.1264e+000	0.0000e+000	8.4260e+000	11:41:57 AM	6/4/04	49.6	0.2	40.8
37.2	454.80 16										
5	D4E190262-002	30	1.6579e+000	1.8087e+000	0.0000e+000	4.9025e+000	12:12:47 PM	6/4/04	44.6	0.2	38.4
36.9	409.32 21										

**SEVERN**  
**TRENT**

**STL**

**RUN LOG**

STL  
St. Louis Laboratory

Liquid Scintillation Counter Runlog

Date	Batch #	Sample #	Protocol	Position	Count Time	Analysis	Initials
6-9-9	4160081	F4F080000-081B	22	2	15Min.	H3	✓
		-081C		3			
		F4F050148-002		4			
		-003		5			
		-004		6			
		-005		7			
		-006		8			
		-007		9			
		-007D		10			
		-007S		11			
		-008		12			
		-009		13			
		-010		14			
		-011		15			
		-012		16			
6-10-9	Daily	Bkgd Sources			60min. Bkgd	QA	✓
6-10-9	416067	Bkgd	23	1	45min	H3	✓
		F4F080000-167B		2			
		-167C		3			
		F9E280217-018		4			
		-018X		5			
		-019		6			
		-019S		7			
		-020		8			
		-021		9			
		-022		10			
		-023		11			
		-024		12			

Reviewed By: [Signature] Date: 6-8-9

Form: SL-RAD-0027, revised 7/16/03; SOP Reference: STL-RD-0302, current revision  
 QC Type Suffixes: B=Blank; C=Laboratory Control Sample; L=Laboratory Control Sample Duplicate; S=Matrix Spike; D=Matrix Spike Duplicate; X=Sample Duplicate. 63

STL Denver see 409 for batches counted first.

STL  
St. Louis Laboratory

Liquid Scintillation Counter Runlog

Date	Batch #	Sample #	Protocol	Position	Count Time	Analysis	Initials
6-10-9	4160167	F4E280217-025	23	13	45min.	H3	—
		-026		14			
		-027		15			
		-028		16			
6-10-9	4160168	BK	24	1	45min.	H3	—
		F4E080000-168B		2			
		-168C		3			
		F4E090207001		4			
		-001k		5			
		-002		6			
		-003		7			
		-004		8			
		-005		9			
		-006		10			
		-007		11			
		-008		12			
		-009		13			
		-010		14			
6-10-9	4160269	BK	4	1	30min	Ni-59, 63	—
		F4E080000-269B		2			
		-269C		3			
		D4E210325-010		4			
		-010X		5			
4-16-80	4161180	BK	17	1	25min	C14	—
		F4E090000-180B		2			
		-180C		3			
		D4E210325-010		4			
		-010X		5			

Reviewed By: [Signature] Date: 6-10-9

Form: SL-RAD-0027, revised 7/16/03; SOP Reference: STL-RD-0302, current revision  
 QC Type Suffixes: B=Blank; C=Laboratory Control Sample; L=Laboratory Control Sample Duplicate; S=Matrix Spike; D=Matrix Spike Duplicate; X=Sample Duplicate.

**SEVERN**  
**TRENT**

**STL**

**RUN LOG**

STL  
St. Louis Laboratory

Liquid Scintillation Counter Runlog

Date	Batch #	Sample #	Protocol	Position	Count Time	Analysis	Initials
6-3-9	4154/15	Bkg	25	1	15 min	173	—
		F4F020000-115B		2			
		-115G		3			
		F4E210103-001		4			
		-002		5			
		-0020		6			
		-002S		7			
		F4E210104-001		8			
		-002		9			
		-003		10			
		F4E210282-001		11			
		-002		12			
		-003		13			
		-004		14			
		-005		15			
		-006		16			
		F4E210292-001		17			
		-002		18			
		-003		19			
		-004		20			
		F4E210297-001		21			
		-002		22			
6-4-4	Dant BKG + Source		—	—	60 min BKG	RAW	—
6/4/04	4154/53	Blood	5	1	30 min	PRENi	RR
		F4F020000-153B		2		Custom PC	
		-153C		3			
		F4E190242-001		4			
		-002		5			

Reviewed By: RR

Date: 6/4/04

Form: SL-RAD-0027, revised 7/16/03; SOP Reference: STL-RD-0302, current revision  
 QC Type Suffixes: B=Blank; C=Laboratory Control Sample; L=Laboratory Control Sample Duplicate; S=Matrix Spike; D=Matrix Spike Duplicate; X=Sample Duplicate.

**STL**  
St. Louis Laboratory

**Liquid Scintillation Counter Runlog**

Date	Batch #	Sample #	Protocol	Position	Count Time	Analysis	Initials
6/4	413A153	DAE1902162-003	5	6	30min	Ni	RR
		-004		7			
		-005		8			
		DAE210325-001		9			
		-001S		10			
		-001M		11			
		-002		12			
		-003		13			
		-004		14			
		-005		15			
		-006		16			
		-008		17			
		-009		18			
6/4/04	4155125	Bkrd	22	1	20min	H3	RR
		F4P030000-125B		2			
		1 -125C		3			
		F4E250252-001		4			
		-002		5			
		-003		6			
		-004		7			
		F4E250272-001		8			
		1 -002		9			
		F4E250306-001		10			
		-002		11			
		-003		12			
		-004		13			
		F4E2102317-001		14			
		1 -001S		15			

Reviewed By: RR Date: 6/4/04

Form: SL-RAD-0027, revised 7/16/03; SOP Reference: STL-RD-0302, current revision  
 QC Type Suffixes: B=Blank; C=Laboratory Control Sample; L=Laboratory Control Sample Duplicate; S=Matrix Spike; D=Matrix Spike Duplicate; X=Sample Duplicate.

Sample ID	WRKNO	Sample Aliquot	Dilution Factor	Digestion Volume	Elution Volume	Tracer Split		Tracer Conc.		Sample Date/Time
						Initial	Final	Initial	Final	
D4E190262-001	GGJX41AD	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.6969 mg/L	1.4141 mg/L	5/18/04 13:42
D4E190262-002	GGJX61AD	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.6894 mg/L	1.5211 mg/L	5/18/04 15:30
D4E190262-003	GGJX81AC	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.7102 mg/L	1.5400 mg/L	5/18/04 16:00
D4E190262-004	GGJX91AD	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.6947 mg/L	1.5156 mg/L	5/18/04 17:00
D4E190262-005	GGJ0A1AC	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.6821 mg/L	1.4998 mg/L	5/18/04 17:00
D4E210325-001	GGTEE1AD	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.6801 mg/L	1.4357 mg/L	5/19/04 10:25
D4E210325-001D	GGTEE1AK	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.6714 mg/L	1.5246 mg/L	5/19/04 10:25
D4E210325-001S	GGTEE1AJ	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.6865 mg/L	1.3885 mg/L	5/19/04 10:25
D4E210325-002	GGTE31AD	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.6738 mg/L	1.5534 mg/L	5/19/04 10:30
D4E210325-003	GGTE61AD	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.6906 mg/L	1.5991 mg/L	5/19/04 13:30
D4E210325-004	GGTE71AD	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.6901 mg/L	1.5965 mg/L	5/19/04 13:35
D4E210325-005	GGTFE1AD	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.6730 mg/L	1.4214 mg/L	5/19/04 16:00
D4E210325-006	GGTFH1AD	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.6886 mg/L	1.6200 mg/L	5/19/04 16:00
D4E210325-008	GGTFX1AD	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.6714 mg/L	1.6499 mg/L	5/20/04 8:00
D4E210325-009	GGTF31AD	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.6779 mg/L	1.7039 mg/L	5/20/04 9:10
F4F020000-153B	GHEW1AA	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.7127 mg/L	1.4716 mg/L	5/18/04 13:42
F4F020000-153C	GHEW1AC	100.0000 mL	1.00	100.00 mL	4.00 mL	1.00 mL	0.10 mL	0.6924 mg/L	1.6299 mg/L	5/18/04 13:42

**Spike Information**

Sample ID	Standard ID	Analyte	Std Conc	Aliquot	Ref Date	Std Added
F4F020000-153C	03-058	Ni-63	4.329E+002dpm/mL	1.00mL	3/1/03 0:00	1.934E+003pCi/L
F4F020000-153C	03-059	Ni-59	4.553E+002dpm/mL	1.00mL	2/10/03 0:00	2.051E+003pCi/L

Spiked By

Spike Verified By

Spike Date



Sample ID	WRKNO	Sample	Dilution	Digestion	Elution	Tracer Split		Tracer Conc.		Sample Date/Time
		Aliquot	Factor	Volume	Volume	Initial	Final	Initial	Final	

**Standard Operating Procedures**

SOP Number	Title	Revision
<input checked="" type="checkbox"/> STL-RC-0003	Drying And Grinding Of Soil And Solid Samples	5.00
<input type="checkbox"/> STL-RC-0004	Preparation Of Soil, Sludge, And Filter Paper Samples For Radiochemical Analysis	7.00
<input type="checkbox"/> STL-RC-0055	Determination of Iron-55, Nickel-59 and Nickel-63 by Liquid Scintillation Spectrometry	0.00
<input type="checkbox"/> STL-RD-0302	Operation and Calibration of a Liquid Scintillation Counter	2.00

RR  
Reviewed By

6/8/04  
Review Date

[Signature]  
Analyst/Relinquished By

6/8/04  
Release Date

ER  
Received By

6/8/04  
Receipt Date

<u>SampID</u>	<u>WRKNO</u>	<u>Aliquot</u>	<u>Volume Added</u>	<u>Volume Used</u>
F4E280161-001	GG9KP1AG	10.0000 g	90.0000 mL	10.0000 mL
F4E280161-001S	GG9KP1AJ	10.0000 g	90.0000 mL	10.0000 mL
F4E280161-001X	GG9KP1AK	10.0000 g	90.0000 mL	10.0000 mL
F4E280161-002	GG9K11AG	10.0000 g	90.0000 mL	10.0000 mL
F4F090000-158B	GHV7X1AA	30.0000 g	mL	10.0000 mL
F4F090000-158C	GHV7X1AC	30.0000 g	mL	10.0000 mL

**Spike Information**

<u>Sample ID</u>	<u>Standard ID</u>	<u>Analyte</u>	<u>Std Conc</u>	<u>Aliquot</u>	<u>Ref Date</u>	<u>StdAdded</u>
F4E280161-001S	00034	H-3	2.274E+003 dpm/mL	1.00 mL	6/6/2000 12:00:00AM	8.535E+001 pCi/g
F4F090000-158C	00034	H-3	2.274E+003 dpm/mL	1.00 mL	6/6/2000 12:00:00AM	2.845E+001 pCi/g

BH  
Spiked By

BA  
Spike Verified By

6-8-7  
Spike Date

**Standard Operating Procedures**

<u>SOPNumber</u>	<u>Title</u>	<u>Revision</u>
------------------	--------------	-----------------

[Signature]  
Reviewed By

6-11-7  
Review Date

JB  
Analyst/Relinquished By

6-10-7  
Release Date

[Signature]  
Received By

6-10-7  
Receipt Date

**SEVERN**  
**TRENT**

**STL**

## Instrument Checks

STL  
Denver

## SNC Protocol

## Calibration Information

Software Version IC: 2.11

Software Version EC: 1.31

Instrument Model: Tri-Carb 3170TR/SL

Instrument Serial Number: 429670

3H Chi Square: 27.55 Date Processed: 2/27/04 1:05:43 PM

14C Chi Square: 22.31 Date Processed: 2/27/04 1:05:43 PM

3H E<sup>2</sup>/B (1-18.6 keV): 1550.43 Date Processed: 6/3/04 3:46:47 AM14C E<sup>2</sup>/B (4-156 keV): 7666.22 Date Processed: 6/3/04 3:46:47 AM

3H Efficiency (0-18.6 keV): 63.17 Date Processed: 6/3/04 3:46:47 AM

14C Efficiency (0-156 keV): 95.78 Date Processed: 6/3/04 3:46:47 AM

IPA Background Date Processed: 6/3/04 3:46:47 AM

3H Background CPM (0-18.6 keV): 2.81 Date Processed: 6/3/04 3:46:47 AM

14C Background CPM (0-156 keV): 3.06 Date Processed: 6/3/04 3:46:47 AM

3H Calibration DPM: 280500

3H Reference Date: 6/4/02

14C Calibration DPM: 120600

1607



**STL**

## **LSC Instrument Check**

**3170**

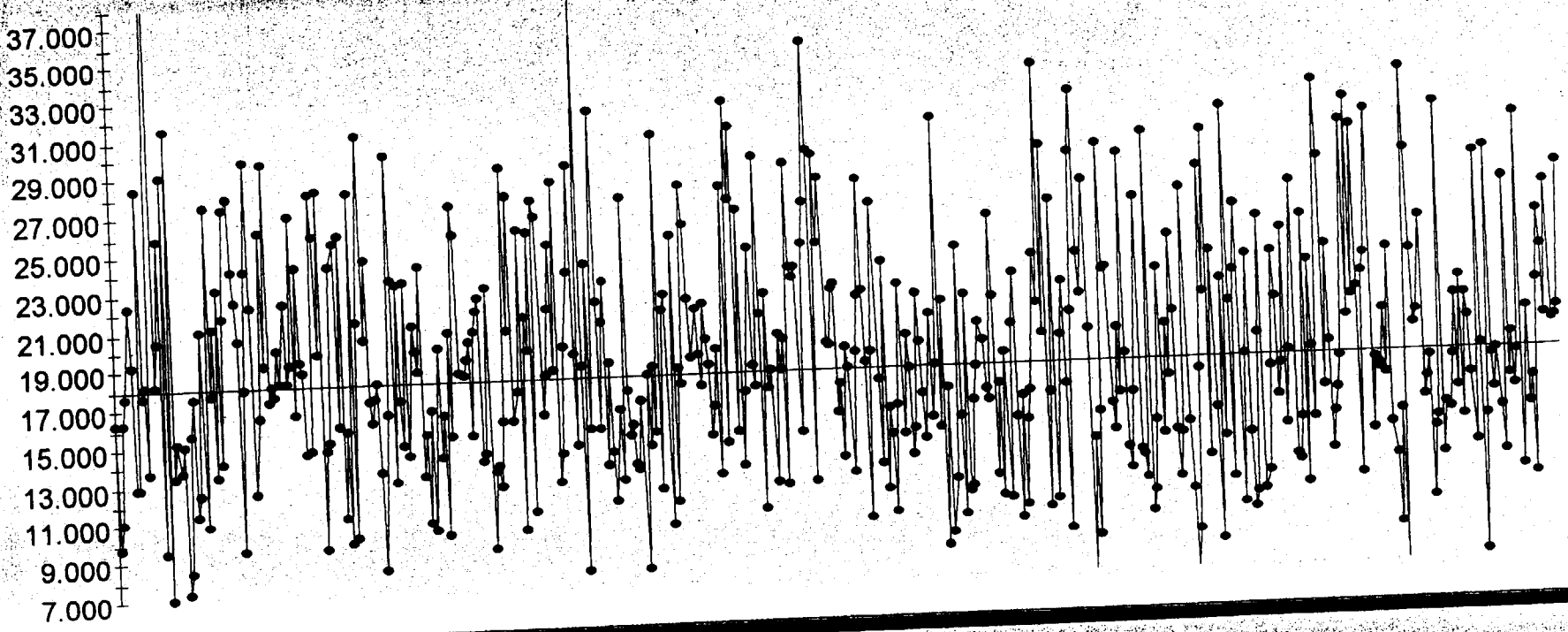
**6/6/04**

STL Deriv

```

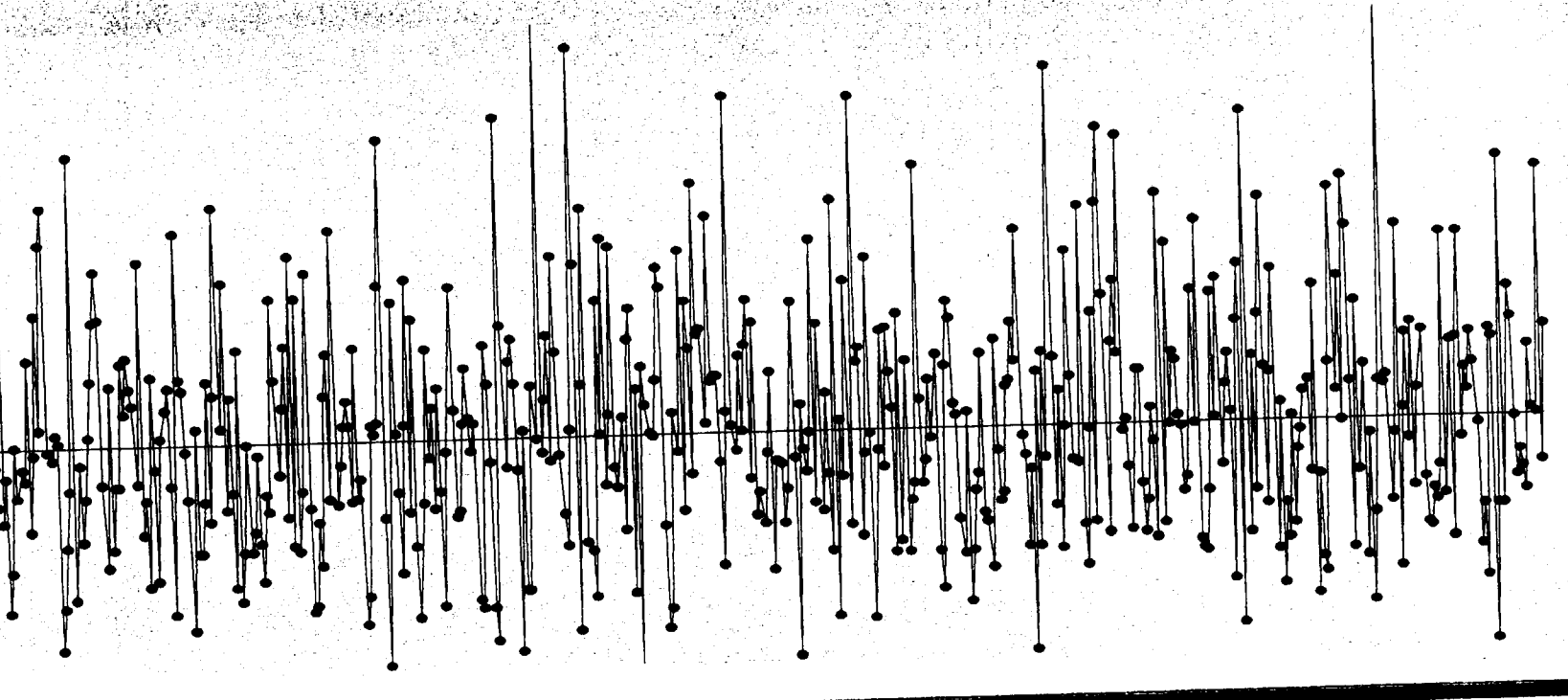
(Chi Square
sta # pts : 510
uld # pts : 510
ean      : 18.72
)        : 6.17

```



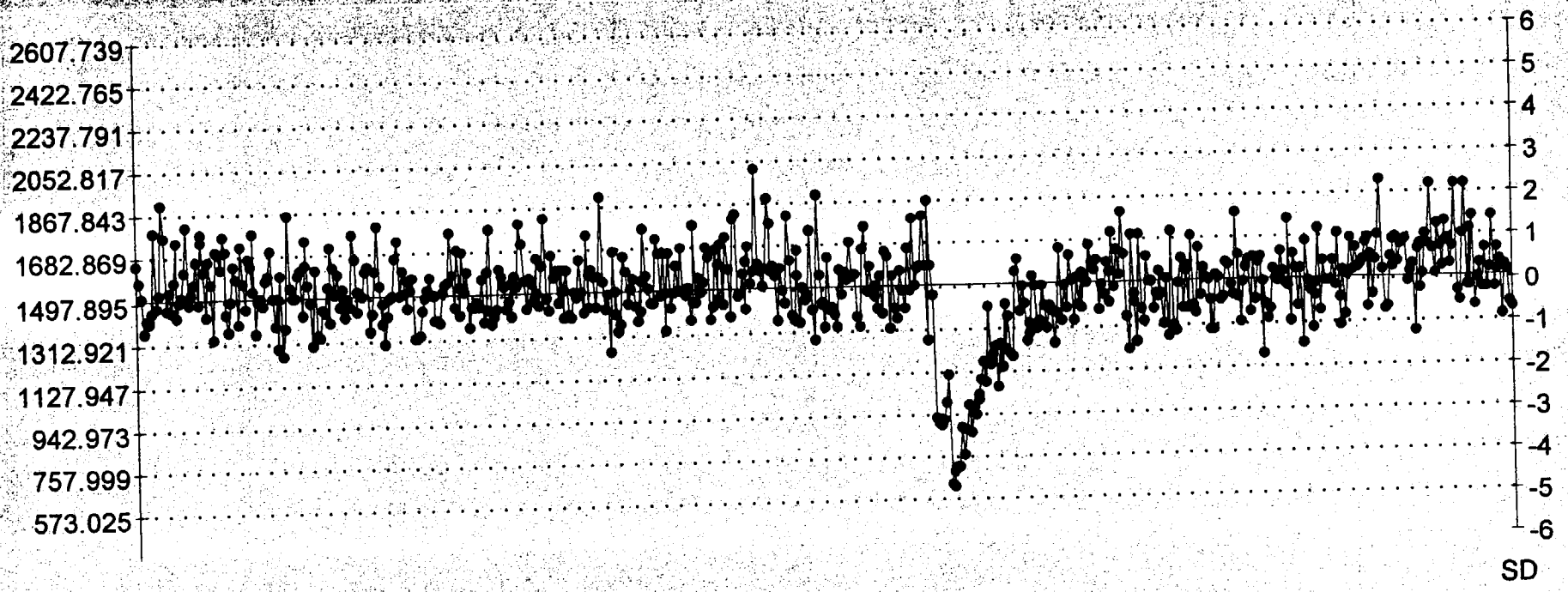
STL  
 Derive  
 Chi Square  
 total # pts : 511  
 used # pts : 511  
 mean : 18.17  
 ) : 5.67

37.000  
 35.000  
 33.000  
 31.000  
 29.000  
 27.000  
 25.000  
 23.000  
 21.000  
 19.000  
 17.000  
 15.000  
 13.000  
 11.000  
 9.000  
 7.000



STL Dev

[ E 2/B  
 sta # pts : 607  
 lid # pts : 607  
 ran : 1497.90  
 ) : 184.97  
 2/B Threshold : 180





STL

Dev

Std

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

Dev

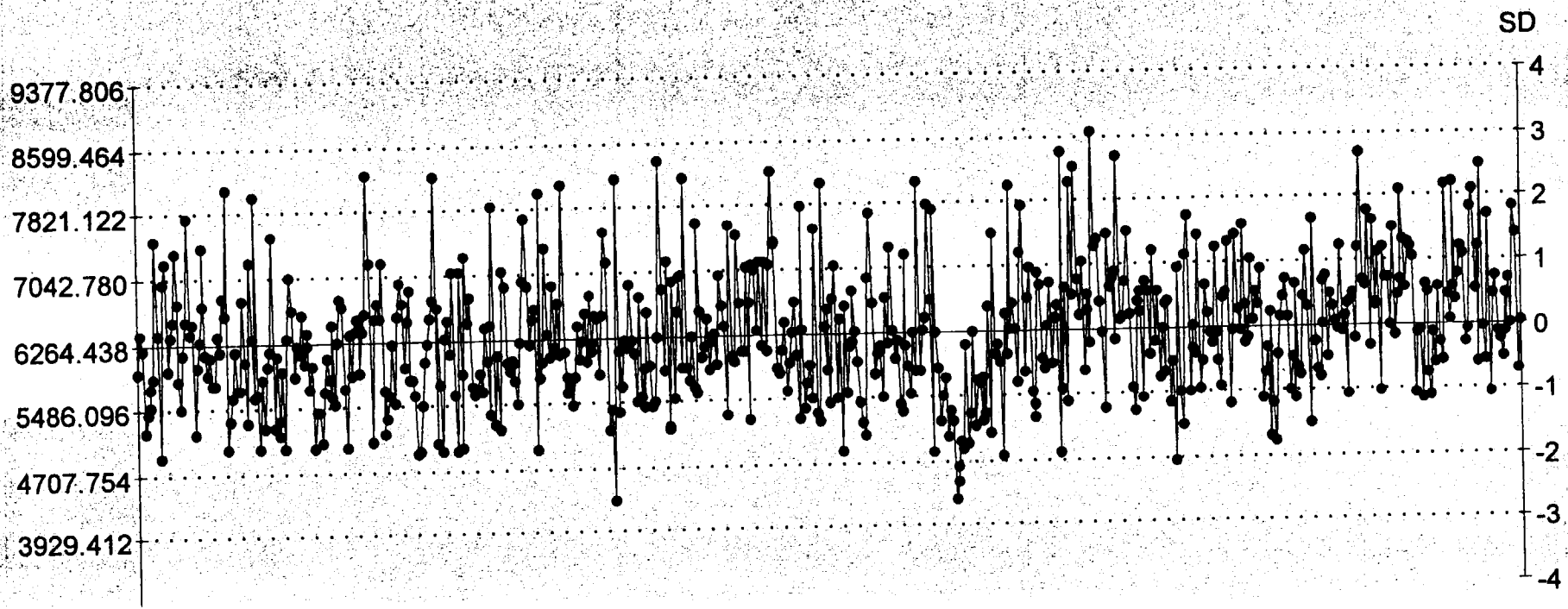
Dev

Dev

Dev

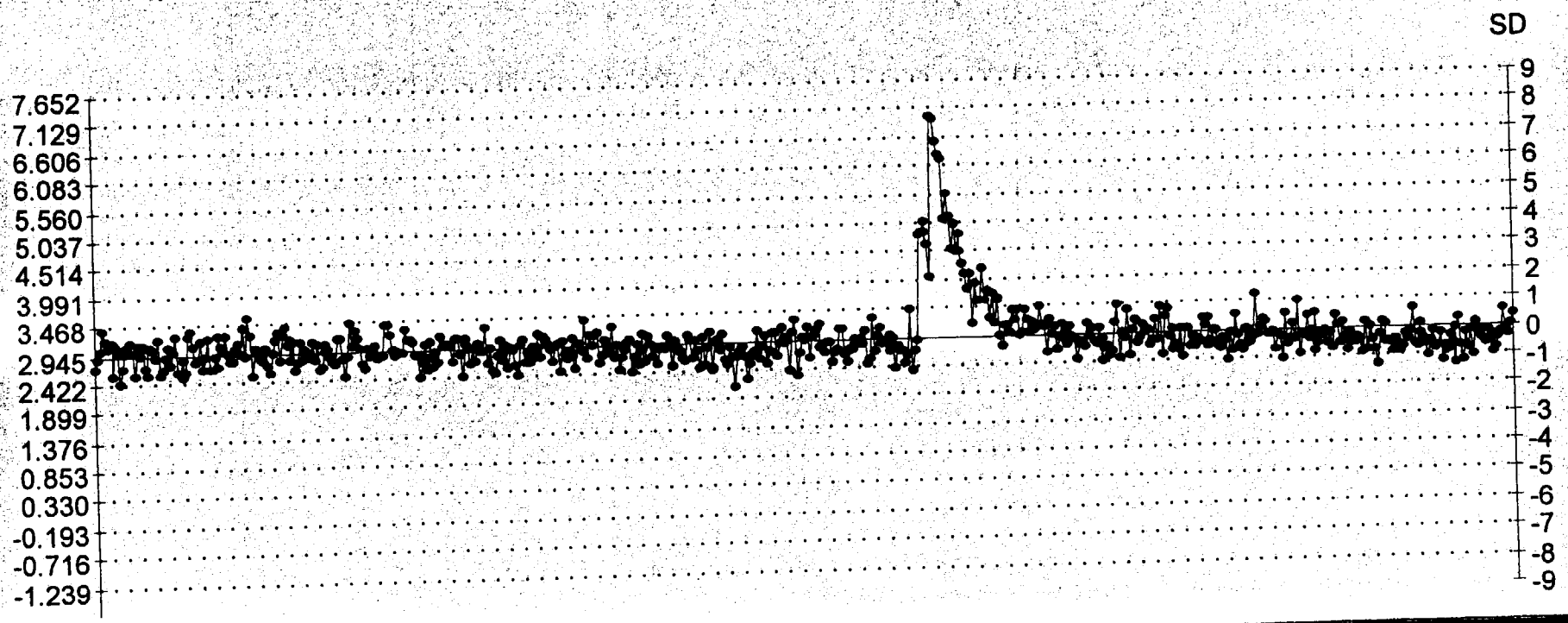
Dev

Ch<sup>2</sup>/B : 607  
Total # pts : 607  
Std # pts : 607  
Mean : 6264.44  
SD : 778.34  
Ch<sup>2</sup>/B Threshold : 380

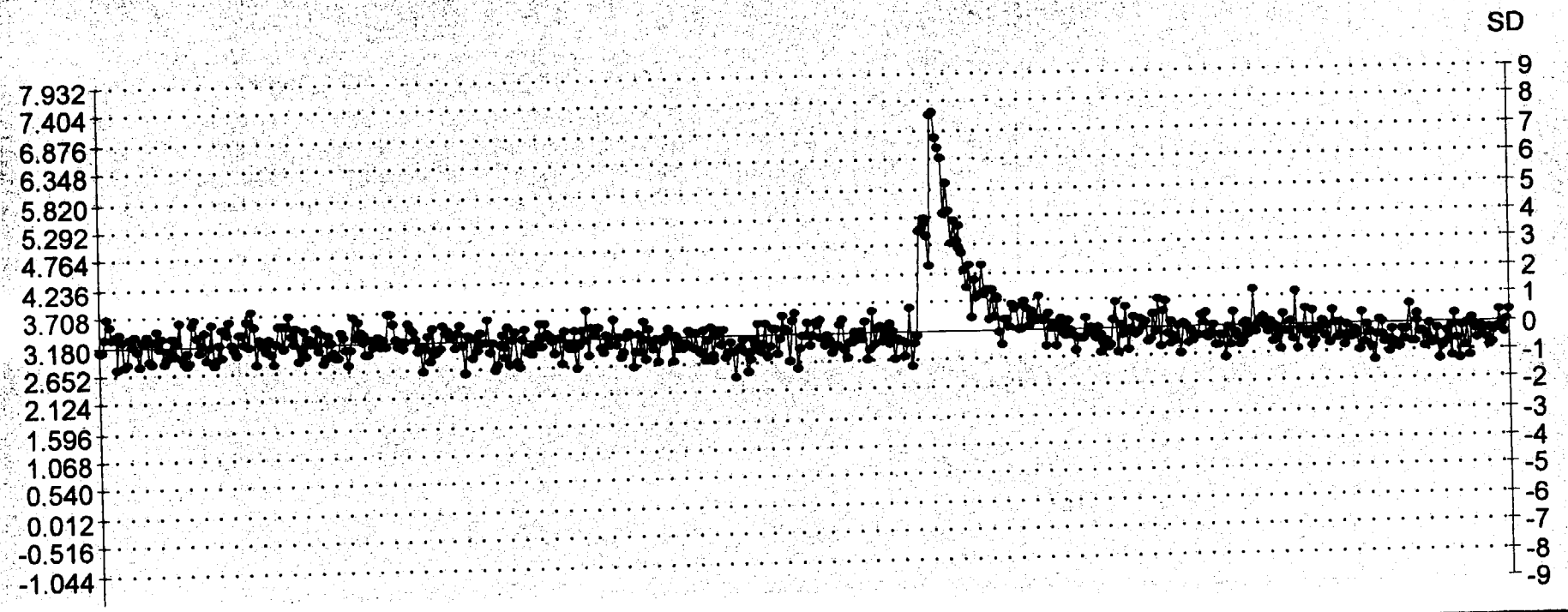


STL  
Data

Background  
Total # pts : 608  
Valid # pts : 608  
Mean : 2.95  
SD : 0.52



STL  
Derive  
IC Background  
> # pts : 608  
valid # pts : 608  
mean : 3.18  
) : 0.53



STL  
Defect

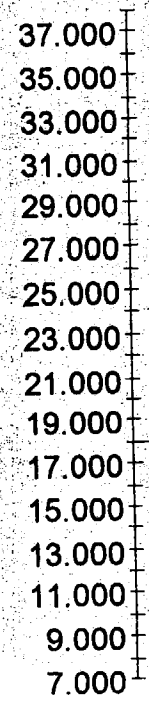
Efficiency  
Total # pts : 612  
Valid # pts : 612  
Mean : 64.11  
SD : 0.81



STL Deny

Efficiency

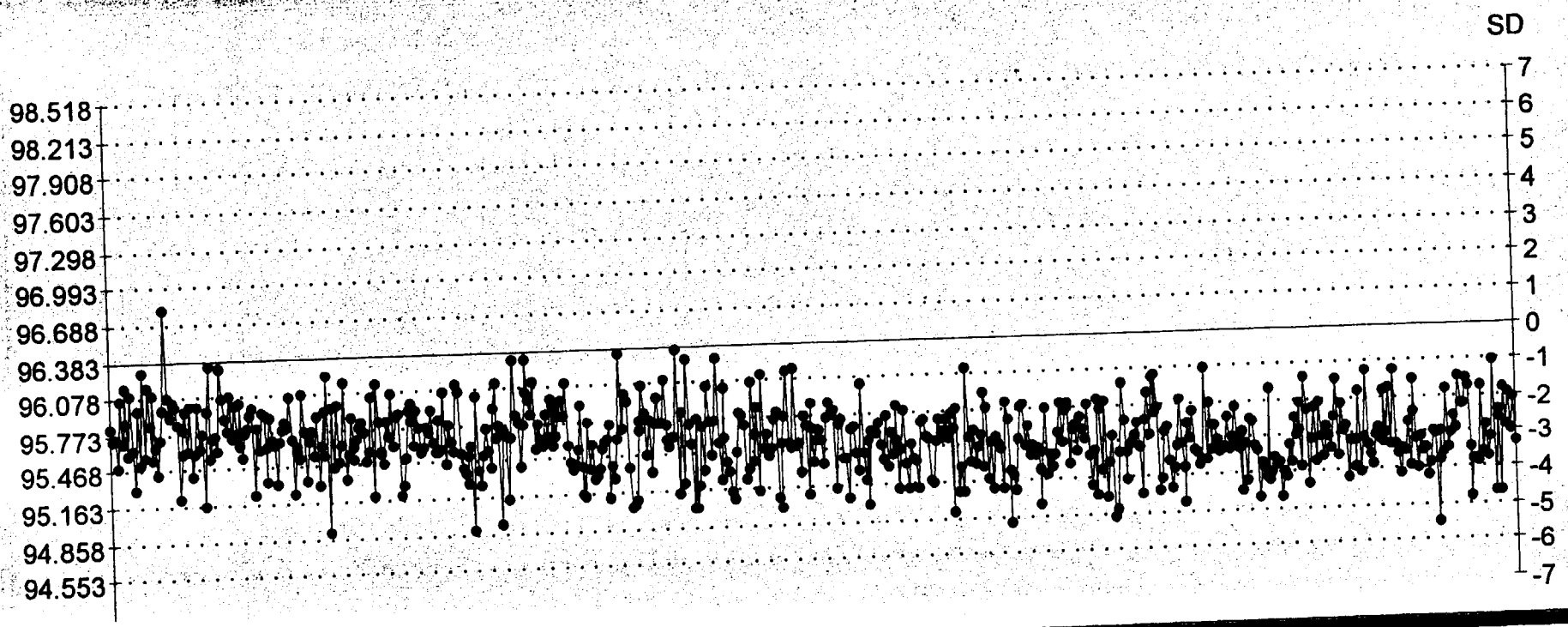
total # pts : 615  
all # pts : 615  
mean : 95.57  
SD : 0.31



STL

Derivative

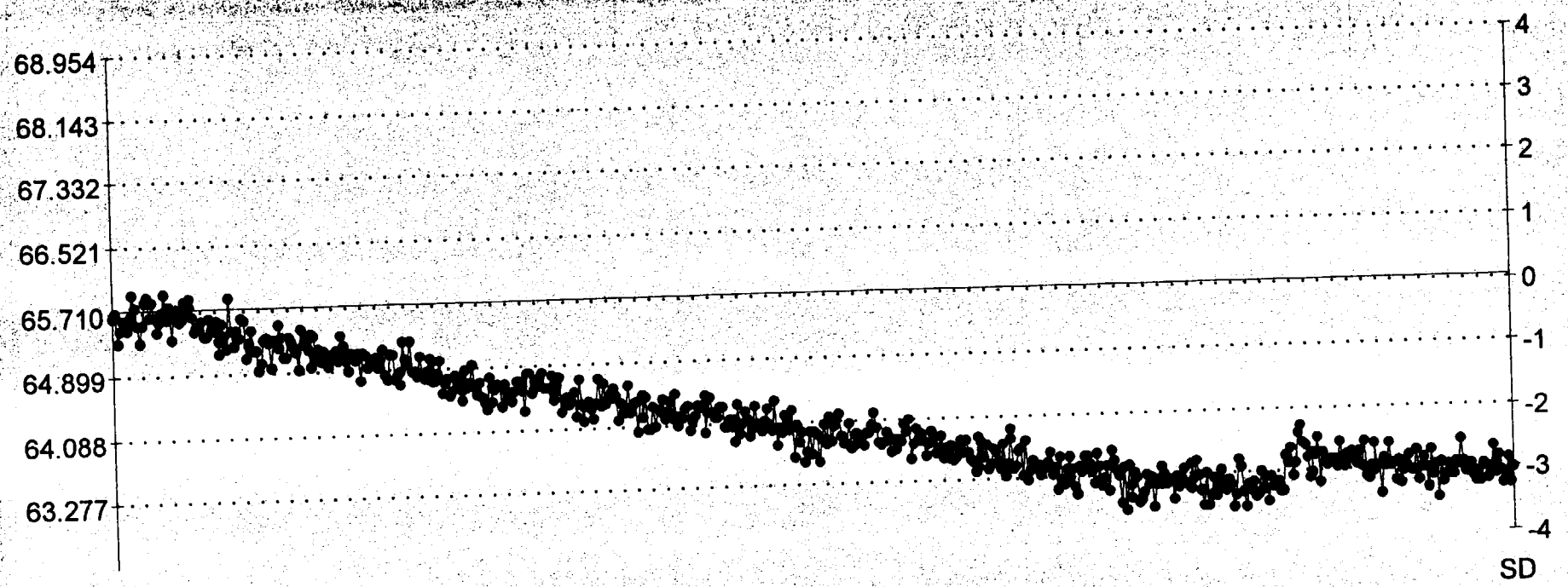
IC Efficiency Baseline Sep 17, 2002 - Present  
 Total # pts : 615  
 Valid # pts : 615  
 Mean : 95.57  
 Baseline SD : 0.31  
 Baseline Mean : 96.38



STL Deviation

Efficiency Baseline Oct 08, 2002 - Present

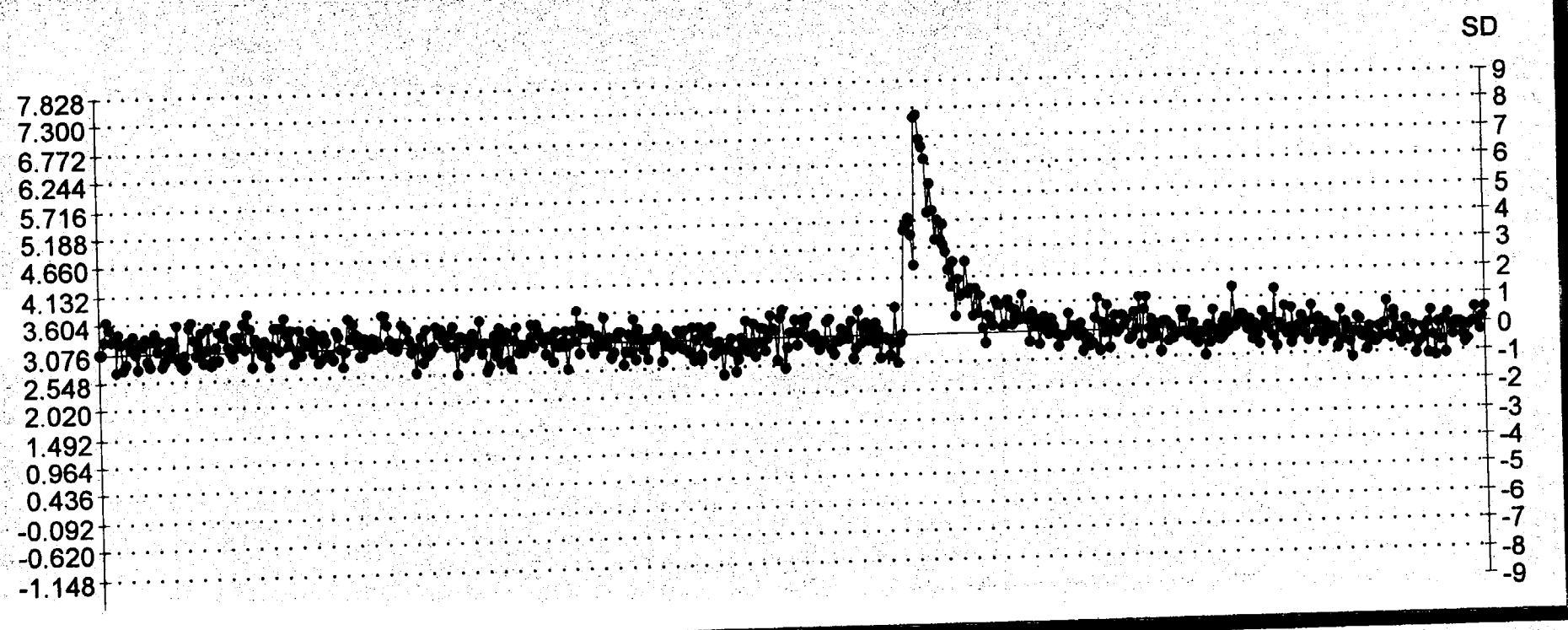
total # pts : 612  
valid # pts : 612  
mean : 64.11  
baseline SD : 0.81  
baseline Mean : 65.71



STL Derivative

IC Background Baseline Oct 08, 2002 - Present

total # pts : 608  
valid # pts : 608  
mean : 3.18  
baseline SD : 0.53  
baseline Mean : 3.08





STL  
Deriv  
1.5

Background Baseline Oct 08, 2002 - Present

total # pts : 608  
valid # pts : 608  
mean : 2.95  
baseline SD : 0.52  
baseline Mean : 3.01





**STL**

## Instrument Checks

6/10/04 5:18:01 AM

QuantaSmart (TM) - 1.31 - Serial# 429670

Page# 1

SNC Protocol

## Calibration Information

Software Version IC: 2.11

Software Version EC: 1.31

Instrument Model: Tri-Carb 3170TR/SL

Instrument Serial Number: 429670

3H Chi Square: 27.55 Date Processed: 2/27/04 1:05:43 PM

14C Chi Square: 22.31 Date Processed: 2/27/04 1:05:43 PM

3H E<sup>2</sup>/B (1-18.6 keV): 1541.38 Date Processed: 6/10/04 5:18:00 AM14C E<sup>2</sup>/B (4-156 keV): 6497.27 Date Processed: 6/10/04 5:18:00 AM

3H Efficiency (0-18.6 keV): 63.29 Date Processed: 6/10/04 5:18:00 AM

14C Efficiency (0-156 keV): 95.02 Date Processed: 6/10/04 5:18:00 AM

IPA Background Date Processed: 6/10/04 5:18:00 AM

3H Background CPM (0-18.6 keV): 2.77 Date Processed: 6/10/04 5:18:00 AM

14C Background CPM (0-156 keV): 2.94 Date Processed: 6/10/04 5:18:00 AM

3H Calibration DPM: 280500

3H Reference Date: 6/4/02

14C Calibration DPM: 120600



**STL**

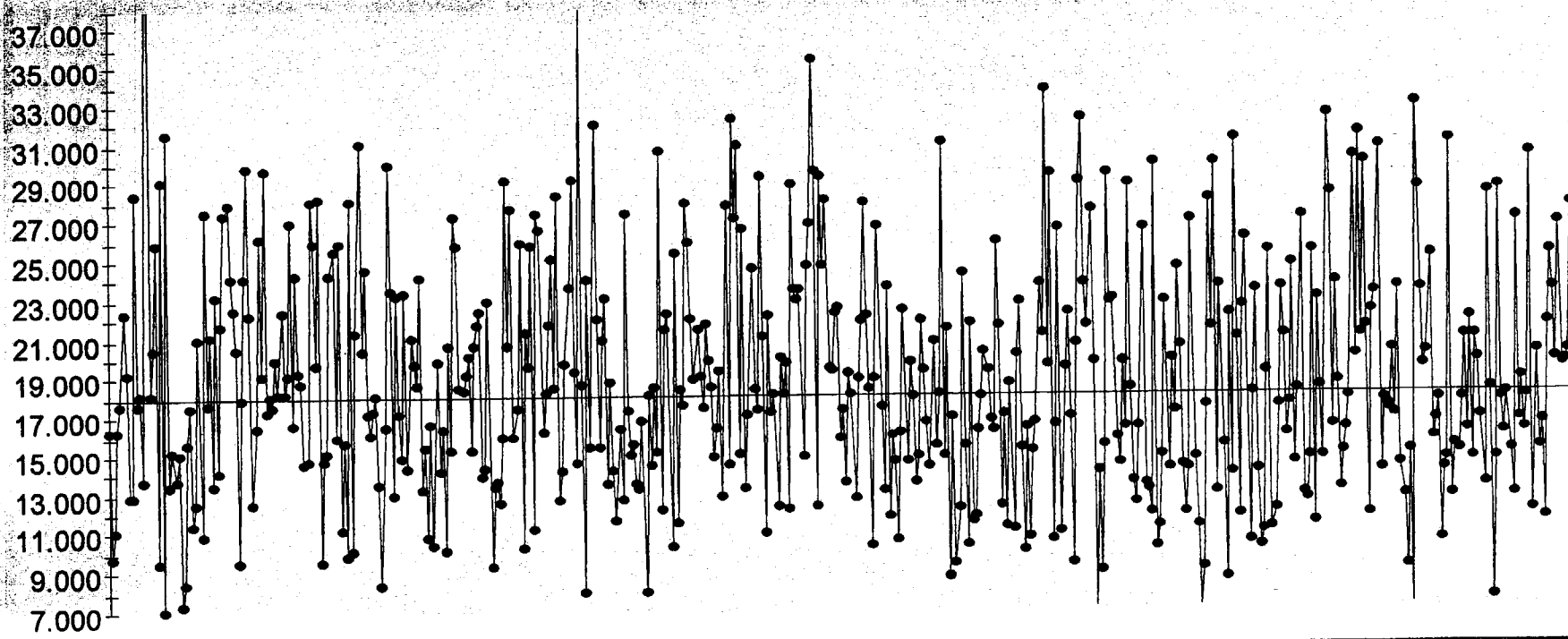
## **LSC Instrument Check**

**3170**

**6/6/04**

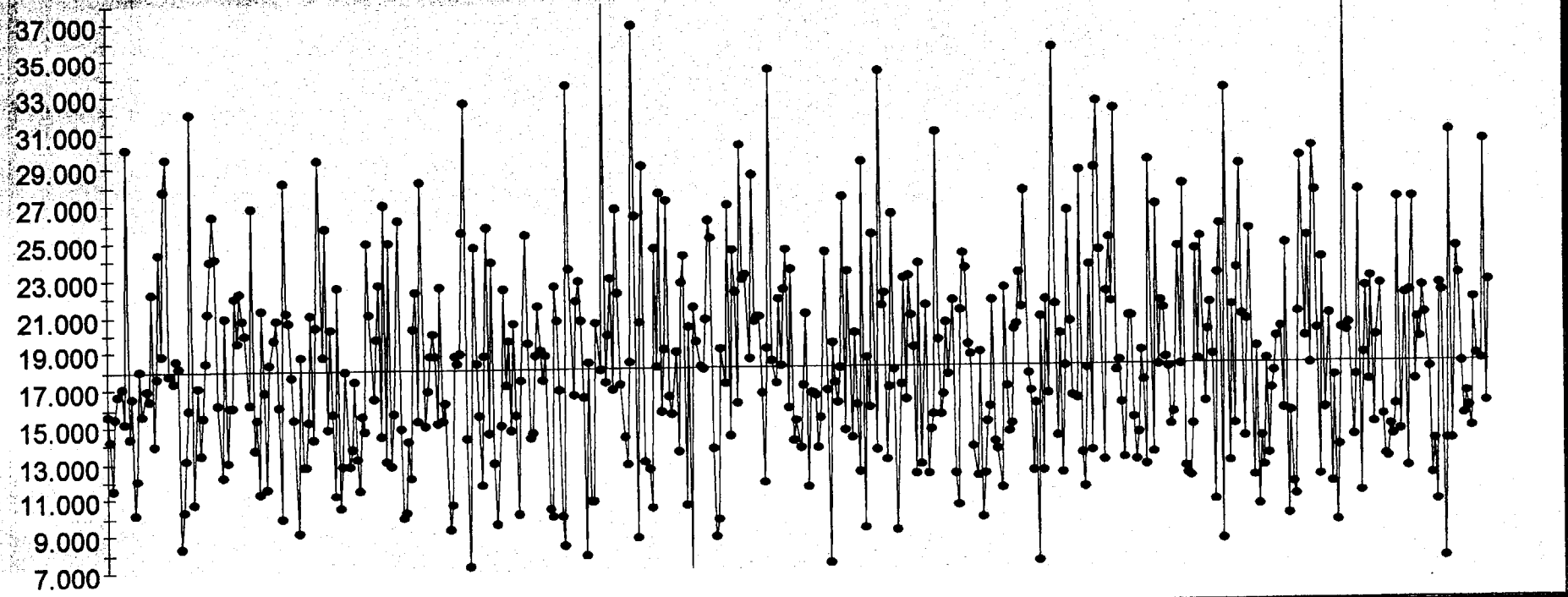
SHL Deriv

SH Chi Square  
Total # pts : 510  
Valid # pts : 510  
Mean : 18.72  
SD : 6.17



ITL  
Deriv  
CAC Chi Square

Total # pts : 511  
Valid # pts : 511  
Mean : 18.17  
SD : 5.67

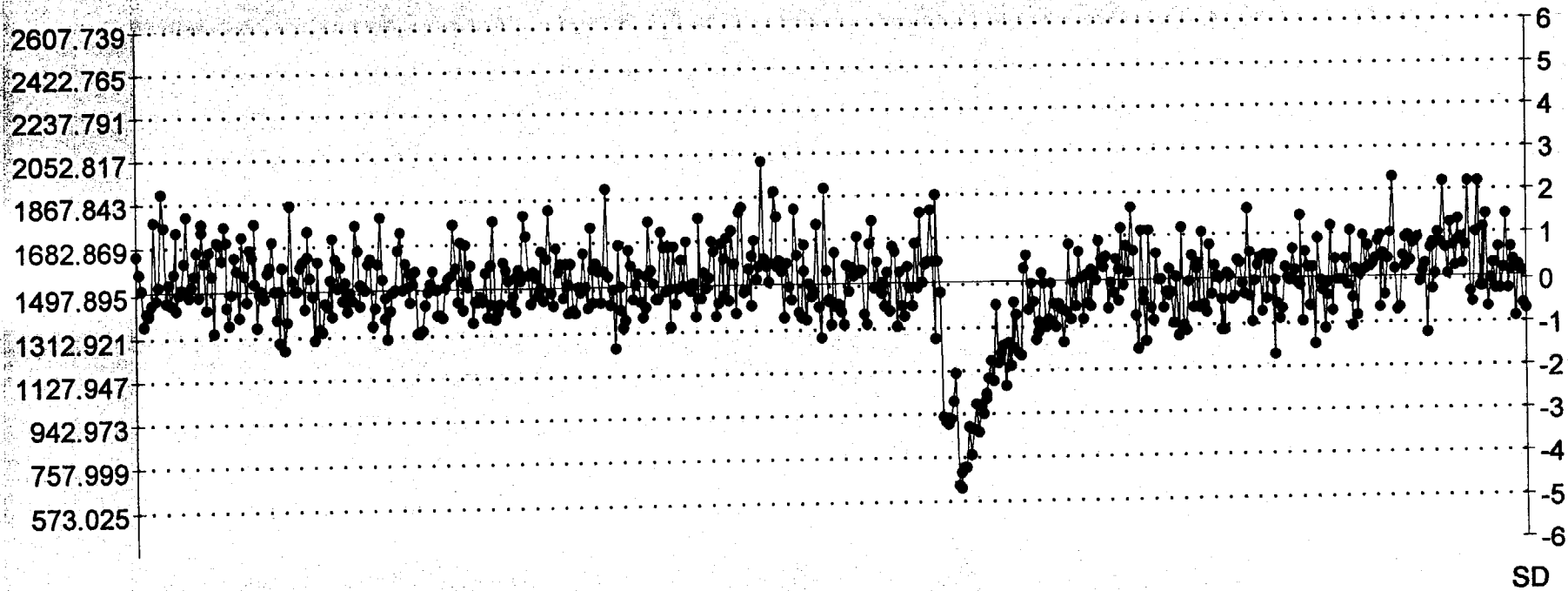


ITL

Deriv

SH E^2/B

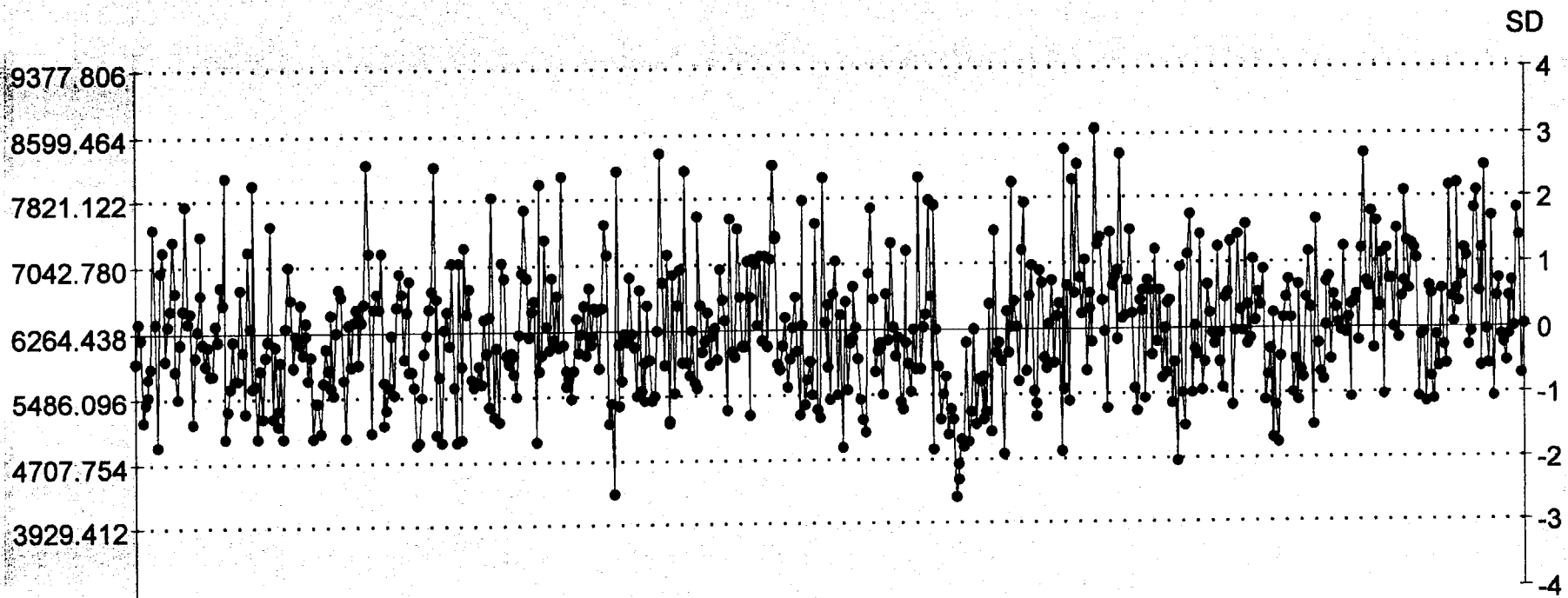
Total # pts : 607  
Valid # pts : 607  
Mean : 1497.90  
SD : 184.97  
E^2/B Threshold : 180



STL

Deriv

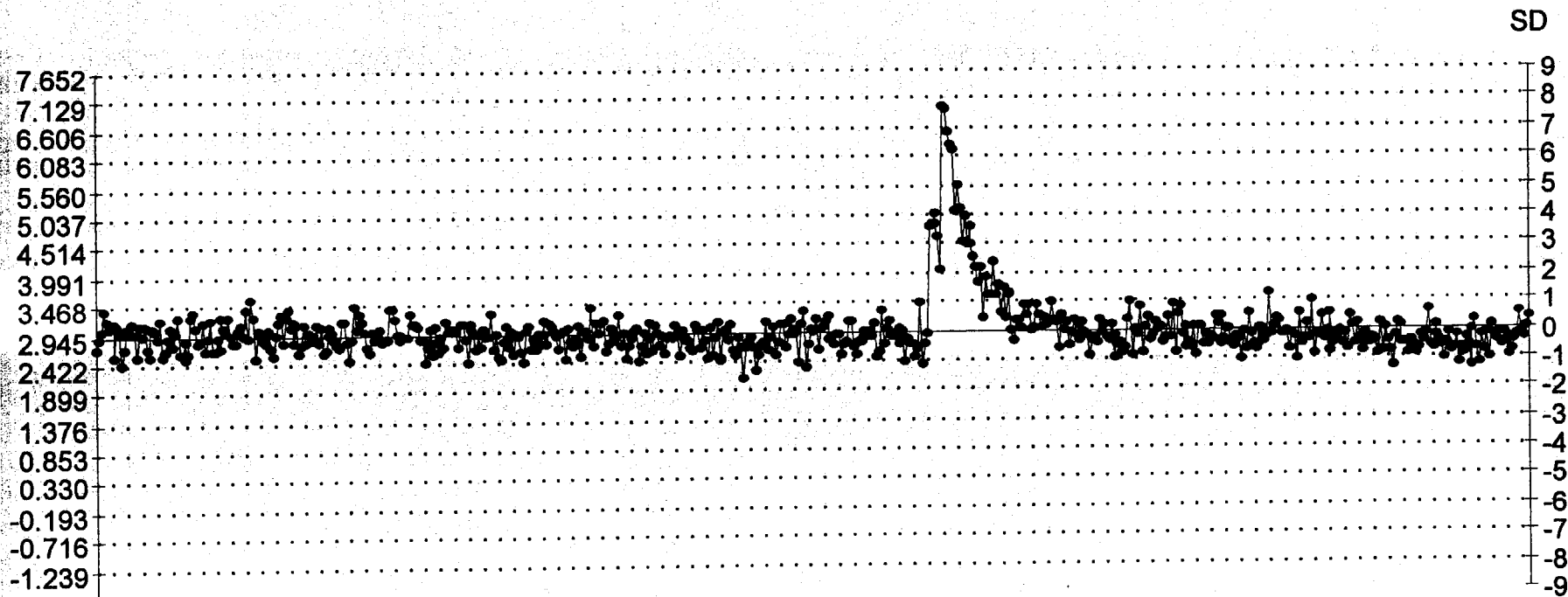
MC E^2/B  
Total # pts : 607  
Valid # pts : 607  
Mean : 6264.44  
SD : 778.34  
E^2/B Threshold : 380





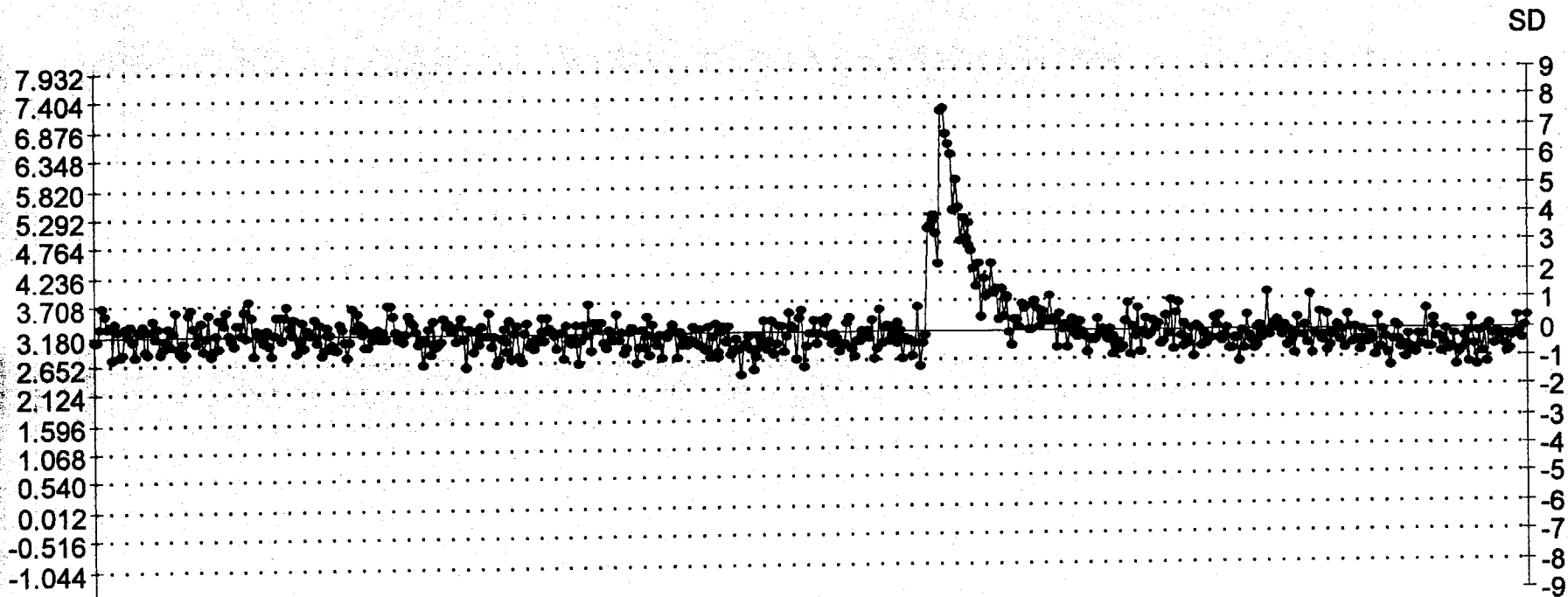
STL  
Deriv

Background  
Total # pts : 608  
Valid # pts : 608  
Mean : 2.95  
SD : 0.52



14C Background

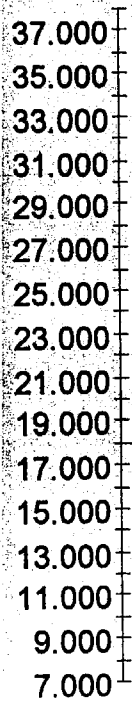
Total # pts : 608  
Valid # pts : 608  
Mean : 3.18  
SD : 0.53



STL  
De  
V  
D

PH Efficiency

Total # pts : 612  
Valid # pts : 612  
Mean : 64.11  
SD : 0.81

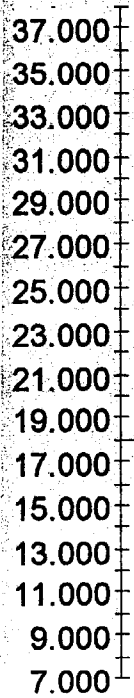


STL

De

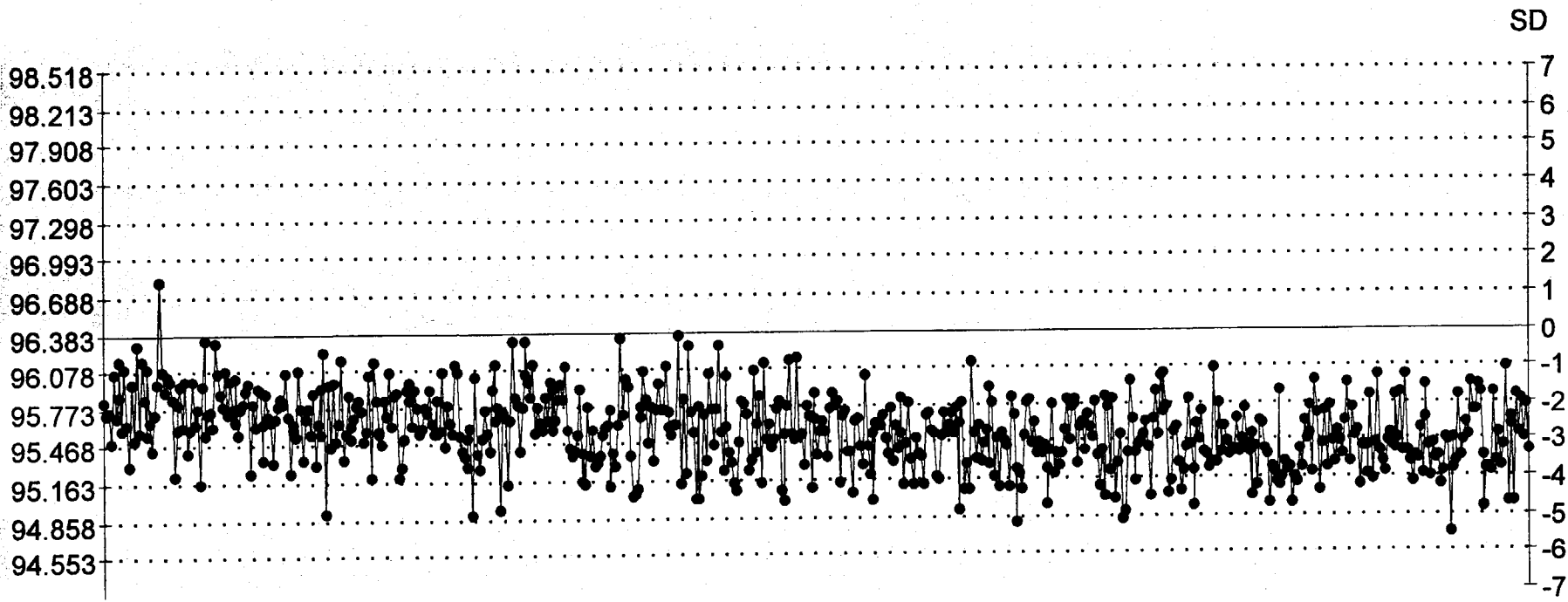
H4C Efficiency

Total # pts : 615  
Valid # pts : 615  
Mean : 95.57  
SD : 0.31



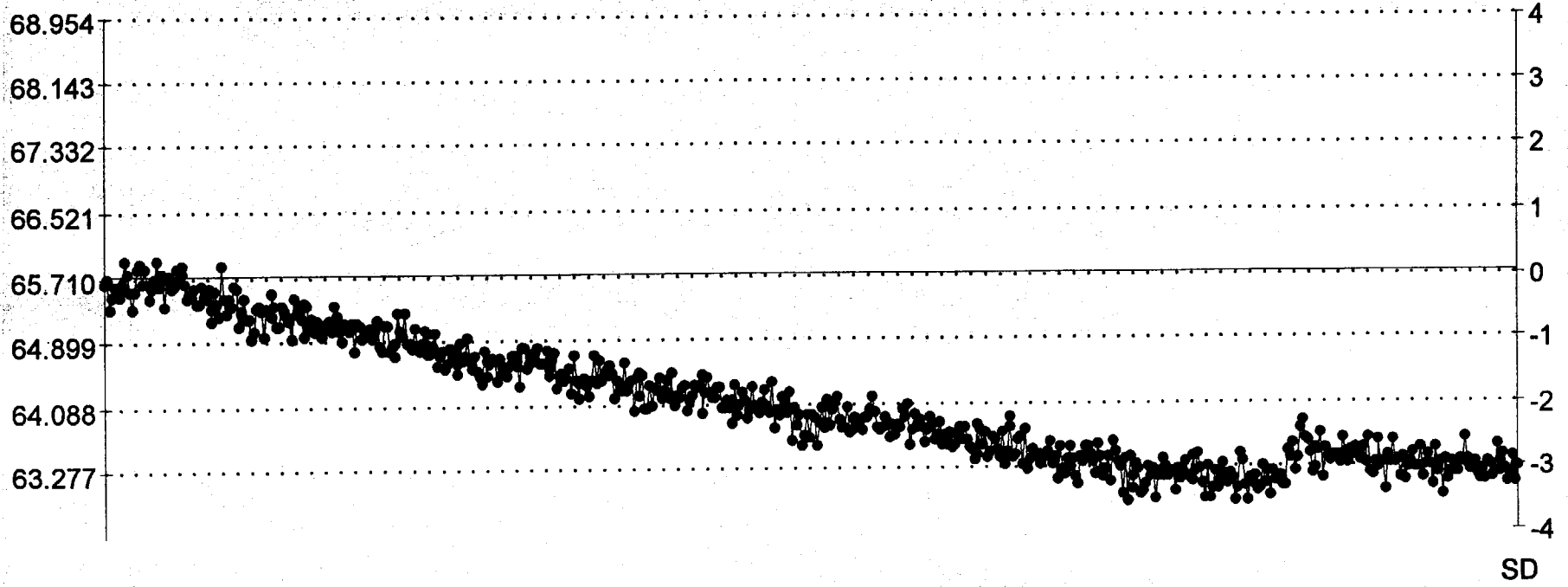
STL  
Derive  
4C Efficiency Baseline Sep 17, 2002 - Present

Total # pts : 615  
Valid # pts : 615  
Mean : 95.57  
Baseline SD : 0.31  
Baseline Mean : 96.38



STL  
Dev  
3H Efficiency Baseline Oct 08, 2002 - Present

Total # pts : 612  
Valid # pts : 612  
Mean : 64.11  
Baseline SD : 0.81  
Baseline Mean : 65.71

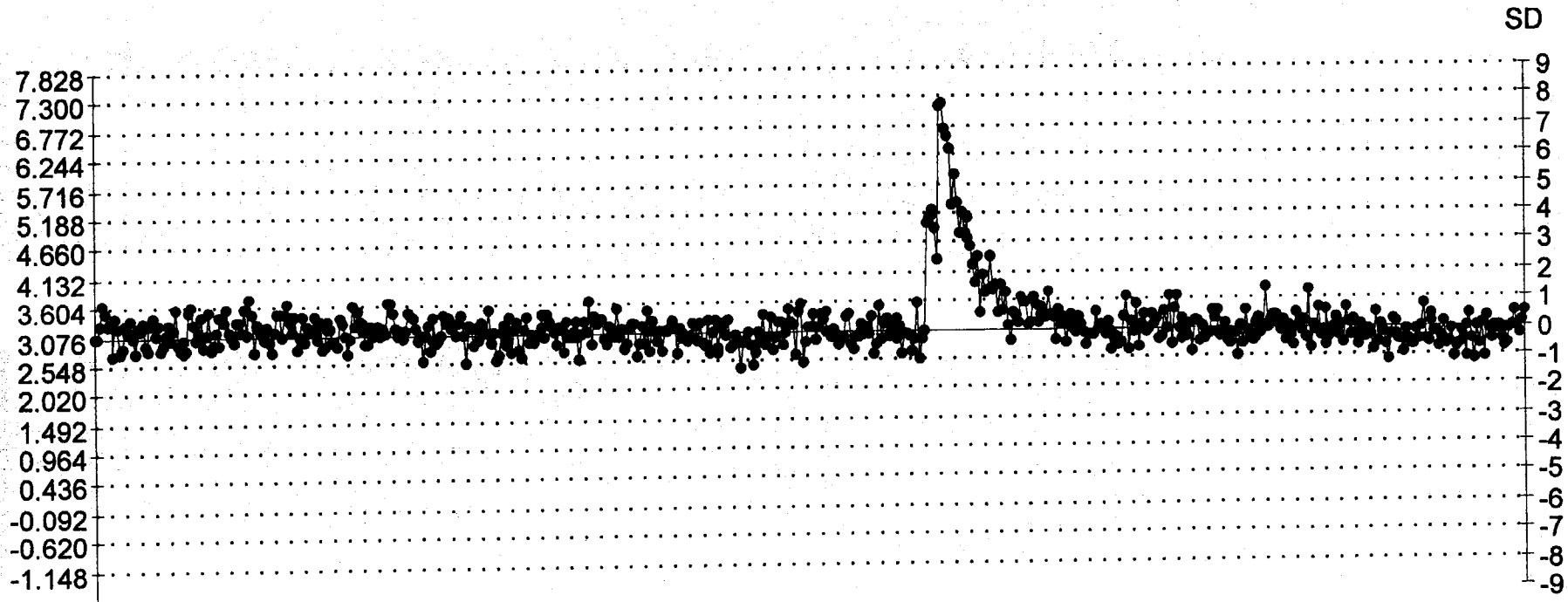


STL

Derivative

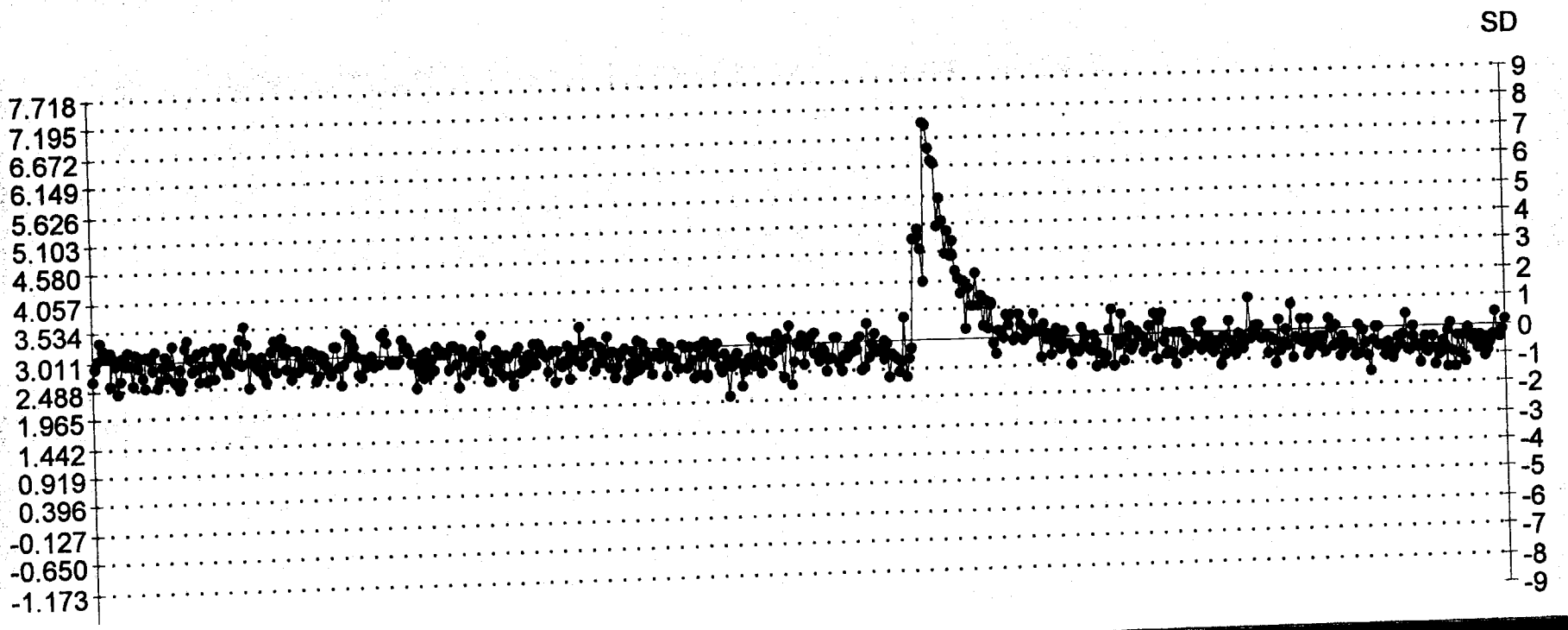
MC Background Baseline Oct 08, 2002 - Present

Total # pts : 608  
Valid # pts : 608  
Mean : 3.18  
Baseline SD : 0.53  
Baseline Mean : 3.08



Background Baseline Oct 08, 2002 - Present

Total # pts : 608  
Valid # pts : 608  
Mean : 2.95  
Baseline SD : 0.52  
Baseline Mean : 3.01





SEVERN  
TRENT

STL

*Liquid  
Scintillation  
Tritium*



STL

LIQUID SCINTILLATION

Data and Results Reports

Calibration Data

*Monthly Quench Curve*

Batch Summary Sheets

*Run Logs*

Raw Data

*Prep Data Sheet(s)*

*Instrument Printouts*

*QC Acceptance Sheet(s)*

*Certificate/Standard Sheets*



# STL

## Analysis Report for Tritium in Water by LSC

**Batch: 4149150**
**Operator: 400697**

 STL St. Louis  
 13715 Rider Trail North  
 Earth City, MO 63045

Sample Information		Count Information						Results		
Sample ID	Aliquot	Instrument	SampEff	SampCPM	SampDPM	RunDateTime	Activity	UncTotal	MDA	
Work Order #	Vol Counted	Sigma	BkgEff	BkgCPM	BkgDPM	Run Duration		UncCount	DLC	
D4E190262-001	100.0000 mL	LSC3170	0.2140	0.99	4.59	5/29/04 13:42	-5.000E+001	1.446E+002	2.703E+002	
GGJX41AF	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	1.445E+002	1.209E+002	
D4E190262-002	100.0000 mL	LSC3170	0.2160	1.02	4.72	5/29/04 14:04	-4.414E+001	1.478E+002	2.678E+002	
GGJX61AF	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	1.477E+002	1.198E+002	
D4E190262-004	100.0000 mL	LSC3170	0.2130	1.70	8.00	5/29/04 14:25	1.036E+002	1.653E+002	2.715E+002	
GGJX91AF	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	1.649E+002	1.215E+002	
D4E210325-001	100.0000 mL	LSC3170	0.2150	0.75	3.49	5/29/04 14:46	-9.955E+001	1.333E+002	2.690E+002	
GGTEE1AF	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	1.330E+002	1.204E+002	
D4E210325-002	100.0000 mL	LSC3170	0.2130	1.38	6.45	5/29/04 15:07	3.378E+001	1.523E+002	2.715E+002	
GGTE31AF	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	1.523E+002	1.215E+002	
D4E210325-003	100.0000 mL	LSC3170	0.2160	1.78	8.23	5/29/04 15:28	1.140E+002	1.580E+002	2.678E+002	
GGTE61AF	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	1.576E+002	1.198E+002	
D4E210325-004	100.0000 mL	LSC3170	0.2120	2.59	12.24	5/29/04 15:49	2.946E+002	1.900E+002	2.728E+002	
GGTE71AF	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	1.877E+002	1.221E+002	
D4E210325-005	100.0000 mL	LSC3170	0.2170	1.21	5.59	5/29/04 16:10	-4.955E+000	3.454E+002	2.665E+002	
GGTFE1AF	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	3.454E+002	1.193E+002	
D4E210325-006	100.0000 mL	LSC3170	0.2160	1.02	4.75	5/29/04 16:31	-4.279E+001	1.433E+002	2.678E+002	
GGTFH1AF	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	1.432E+002	1.198E+002	
D4E210325-008	100.0000 mL	LSC3170	0.2160	0.86	4.00	5/29/04 16:52	-7.658E+001	1.374E+002	2.678E+002	
GGTFX1AF	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	1.372E+002	1.198E+002	
D4E210325-008S	100.0000 mL	LSC3170	0.2110	41.56	197.00	5/29/04 17:13	8.617E+003	1.064E+003	2.741E+002	
GGTFX1AG	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	6.248E+002	1.227E+002	
D4E210325-009	100.0000 mL	LSC3170	0.2210	3.07	13.89	5/29/04 17:34	3.689E+002	1.884E+002	2.617E+002	
GGTF31AF	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	1.847E+002	1.171E+002	
D4E210325-009X	100.0000 mL	LSC3170	0.2160	3.01	13.91	5/29/04 17:55	3.698E+002	1.936E+002	2.678E+002	
GGTF31AG	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	1.900E+002	1.198E+002	
D4E260231-001	100.0000 mL	LSC3170	0.2130	1.05	4.92	5/29/04 18:16	-3.514E+001	1.393E+002	2.715E+002	
GG4FQ1AA	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	1.393E+002	1.215E+002	
F4E070121-001	100.0000 mL	LSC3170	0.2120	30.38	143.31	5/29/04 18:37	6.199E+003	8.184E+002	2.728E+002	
GFQDR1AE	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	5.344E+002	1.221E+002	
F4E120234-001	100.0000 mL	LSC3170	0.2130	1.22	5.72	5/29/04 18:58	9.009E-001	0.000E+000	2.715E+002	
GF3551AE	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	0.000E+000	1.215E+002	
F4E280000-150B	100.0000 mL	LSC3170	0.2160	1.27	5.87	5/29/04 13:00	7.658E+000	1.081E+002	2.678E+002	
GG9A91AA	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	1.081E+002	1.198E+002	
F4E280000-150C	100.0000 mL	LSC3170	0.2140	41.41	193.20	5/29/04 13:21	8.446E+003	1.044E+003	2.703E+002	
GG9A91AC	10.00	2.00	0.2140	1.22	5.70	20.00	pCi/L	6.136E+002	1.209E+002	

<u>Sample Information</u>		<u>Count Information</u>					<u>Results</u>		
<u>Sample ID</u>	<u>Aliquot</u>	<u>Instrument</u>	<u>SampEff</u>	<u>SampCPM</u>	<u>SampDPM</u>	<u>RunDateTime</u>	<u>Activity</u>	<u>UncTotal</u>	<u>MDA</u>
<u>Work Order #</u>	<u>Vol Counted</u>	<u>Sigma</u>	<u>BkgEff</u>	<u>BkgCPM</u>	<u>BkgDPM</u>	<u>Run Duration</u>		<u>UncCount</u>	<u>DLC</u>
<b>Laboratory Control Sample Information</b>									
<u>Sample ID</u>	<u>WRKNO</u>	<u>Activity</u>	<u>StdAdded</u>	<u>Recovery</u>					
F4E280000-150C	GG9A91AC	8.446E+003 pCi/L	8.191E+003	103.12%					
<b>Sample Duplicate Information</b>									
<u>Sample ID</u>	<u>Sample Activity</u>	<u>Dup Sample ID</u>	<u>Dup Activity</u>	<u>RPD</u>	<u>RER</u>				
D4E210325-009	3.689E+002 pCi/L	D4E210325-009X	3.698E+002 pCi/L	0.24%	0.00				
<b>Matrix Spike Information</b>									
<u>SampID</u>	<u>SampMSID</u>	<u>Sample Activity</u>	<u>MS Activity</u>	<u>StdAdded</u>	<u>MSRecovery</u>				
D4E210325-008	D4E210325-008S	-7.658E+001 pCi/L	8.617E+003 pCi/L	8.190E+003	105.21%				



# STL

## Analysis Report for Tritium in Soil by LSC

**Batch: 4148318**
**Operator: 60040**

 STL St. Louis  
 13715 Rider Trail North  
 Earth City, MO 63045

<u>Sample Information</u>			<u>Count Information</u>					<u>Results</u>		
<u>Sample ID</u>	<u>Aliquot</u>	<u>Vol Added</u>	<u>Instrument</u>	<u>SampEff</u>	<u>SampCPM</u>	<u>SampDPM</u>	<u>RunDateTime</u>	<u>Activity</u>	<u>UncTotal</u>	<u>MDA</u>
<u>Work Order #</u>	<u>% Moisture</u>	<u>Vol Counted</u>	<u>Sigma</u>	<u>BkgEff</u>	<u>BkgCPM</u>	<u>BkgDPM</u>	<u>Run Duration</u>		<u>UncCount</u>	<u>DLC</u>
D4E210325-010	20.5000 g	40.00 mL	LSC3170	0.2140	0.83	3.89	5 / 28 / 04 12:36	2.461E-002	2.793E-001	4.328E-001
GGTF41AA	0.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	2.793E-001	1.887E-001
F4E050104-003	64.2700 g	100.00 mL	LSC3170	0.2170	1.06	4.87	5 / 28 / 04 12:57	8.831E-002	1.915E-001	3.404E-001
GFH6F1CK	0.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	1.913E-001	1.484E-001
F4E050104-008	12.6900 g	100.00 mL	LSC3170	0.2170	1.20	5.54	5 / 28 / 04 13:18	6.851E-001	1.029E+000	1.724E+000
GFH771CK	0.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	1.026E+000	7.515E-001
F4E050284-002	20.0000 g	100.00 mL	LSC3170	0.2160	0.91	4.22	5 / 28 / 04 13:39	1.374E-001	6.146E-001	1.099E+000
GFLOG1A5	0.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	6.144E-001	4.790E-001
F4E120257-001	4.5700 g	40.00 mL	LSC3170	0.2150	1.23	5.69	5 / 28 / 04 14:00	8.201E-001	1.158E+000	1.932E+000
GF4DR1AG	0.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	1.155E+000	8.425E-001
F4E120257-001S	4.7000 g	40.00 mL	LSC3170	0.2130	100.51	471.19	5 / 28 / 04 14:21	1.793E+002	1.967E+001	1.897E+000
GF4DR1AJ	0.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	8.090E+000	8.269E-001
F4E120257-001X	4.4700 g	40.00 mL	LSC3170	0.2140	1.66	7.76	5 / 28 / 04 14:42	1.673E+000	1.338E+000	1.985E+000
GF4DR1AK	0.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	1.328E+000	8.654E-001
F4E270000-318B	40.0000 g	0.00 mL	LSC3170	0.2130	1.06	4.98	5 / 28 / 04 11:54	6.171E-002	1.338E-001	2.229E-001
GG6161AA	1.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	1.337E-001	9.716E-002
F4E270000-318C	40.0000 g	0.00 mL	LSC3170	0.2130	102.49	480.96	5 / 28 / 04 12:15	2.150E+001	2.355E+000	2.229E-001
GG6161AC	1.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	9.608E-001	9.716E-002

### Laboratory Control Sample Information

<u>Sample ID</u>	<u>WRKNO</u>	<u>Activity</u>	<u>StdAdded</u>	<u>Recovery</u>
F4E270000-318C	GG6161AC	2.150E+001 pCi/g	2.048E+001	104.99%

### Sample Duplicate Information

<u>Sample ID</u>	<u>Sample Activity</u>	<u>Dup Sample ID</u>	<u>Dup Activity</u>	<u>RPD</u>	<u>RER</u>
F4E120257-001	8.201E-001 pCi/g	F4E120257-001X	1.673E+000 pCi/g	68.41%	0.34

### Matrix Spike Information

<u>SampID</u>	<u>SampMSID</u>	<u>Sample Activity</u>	<u>MS Activity</u>	<u>StdAdded</u>	<u>MSRecovery</u>
F4E120257-001	F4E120257-001S	8.201E-001 pCi/g	1.793E+002 pCi/g	1.743E+002	102.37%

**SEVERN  
TRENT**

**STL**

**QUENCH CURVE**

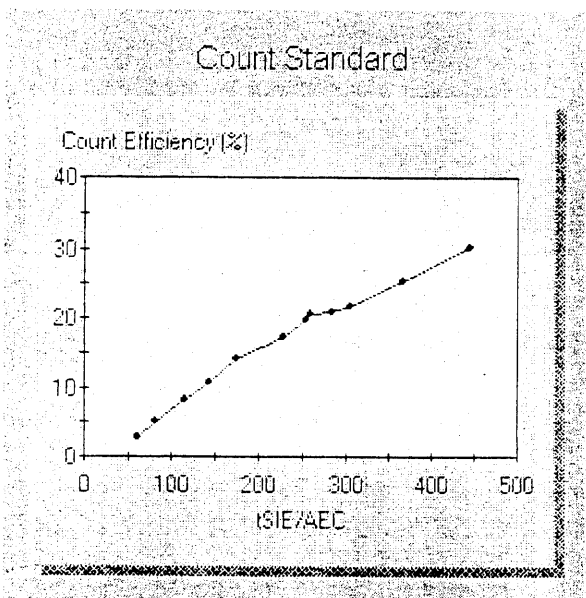
**H-3**

**3170**

Cycle 1 Results

S#	Count	Time	CPMA	SIS	tSIE	MESSAGES	TIME
1	20.00	220.08	10.02	445.54	S	5:30:15 PM	
2	20.00	184.58	8.85	365.83	S	5:51:52 PM	
3	20.00	158.34	8.06	304.87	S	6:13:28 PM	
4	20.00	153.31	7.88	284.76	S	6:35:04 PM	
5	20.00	151.09	7.76	259.85	S	6:56:39 PM	
6	20.00	144.79	7.46	254.64	S	7:18:14 PM	
7	20.00	126.50	7.18	228.94	S	7:39:49 PM	
8	20.00	102.37	6.47	174.11	S	8:01:25 PM	
9	20.00	78.96	6.04	142.95	S	8:23:01 PM	
10	20.00	60.47	5.54	114.98	S	8:44:42 PM	
11	20.00	36.29	5.03	81.42	S	9:06:17 PM	
12	20.00	21.37	4.64	60.05	S	9:27:53 PM	

Quench Curve Block Data



Date Acquired: 12/11/03  
Date Modified:  
Count Standard

tSIE/AEC	Count Efficiency (%)
445.54	30.11
365.83	25.25
304.87	21.66
284.76	20.97
259.85	20.67
254.64	19.81
228.94	17.31
174.11	14.00
142.95	10.80
114.98	8.27
81.42	4.96
60.05	2.92

H3 Quench Curve 12/12/03 LSC 3170

Std is 1mL of 00-005 (3152.74 dpm/mL) diluted 4mL to 14mL

Decay corrected to 12/12/03 = 730.66 dpm/mL or 329.126 pCi/mL  
Cocktail is Ultima Gold LLT

Std #	mL H2O	mL 00-005	mL UGLLT	uL Nitromethane
1	4	1	15	0
2	7	1	12	0
3	9	1	10	0
4	9	1	10	5
5	9	1	10	10
6	9	1	10	15
7	9	1	10	25
8	9	1	10	50
9	9	1	10	75
10	9	1	10	100
11	9	1	10	150
12	9	1	10	200

Tritium	
Initial Activity:	1420.153153 pCi
Reference Date:	3/10/2000
Current Date:	12/11/2003
Elapsed Time:	1371 days
Half Life:	4540.0575 days
Exponential Term:	0.811139213
Corrected Activity:	1151.941911 pCi
	(or date at which you wish to determine activity)
	108961.4
	2557.311 dpm
	4/14mL
	730.6603

Decay Correction

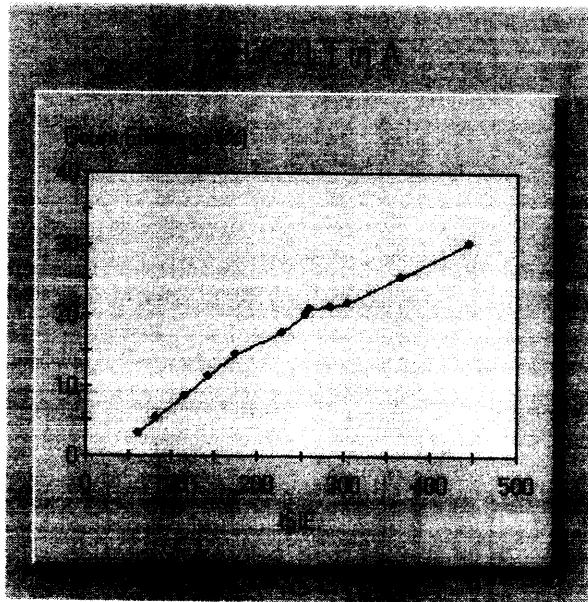
3170



5/28/04 3:03:16 PM

Protocol# 25 - 3H UGLLT 25.1sa

QuantaSmart (TM) - 1.31 - Serial# 429670

Page # 1  
User: ChemistCycle 1 Results  
Quench Curve Block DataDate Acquired: 12/11/2003  
Date Modified: 11/17/2003  
H3 UGLLT in A

tSIE	Count Efficiency (%)
445.54	30.19
365.83	25.38
304.87	21.77
284.76	21.11
259.85	20.94
254.64	20.07
228.94	17.55
174.11	14.38
142.95	11.13
114.98	8.56
81.42	5.25
60.05	3.16

P#	PID	S#	C.T.	CPMA	EFF	DPM1	CPMB	CPMC	tSIE	LUM	NOTE	DATE	TIME	SMPL_ID
25	12	1	20	0.8	0.214	3.6	1.3	2	295	58		5/28/04	11:33:20 AM	BKG
25	12	2	20	1.1	0.213	5.0	1.1	2	292	42		5/28/04	11:54:23 AM	F4E270000-318B
25	12	3	20	102.5	0.213	481.0	59.4	103	291	1		5/28/04	12:15:26 PM	F4E270000-318C
25	12	4	20	0.8	0.214	3.9	1.0	2	293	49		5/28/04	12:36:28 PM	D4E210325-010
25	12	5	20	1.1	0.217	4.9	1.2	2	302	44		5/28/04	12:57:31 PM	F4E050104-003
25	12	6	20	1.2	0.217	5.5	1.3	2	301	42		5/28/04	1:18:34 PM	F4E050104-008
25	12	7	20	0.9	0.216	4.2	1.2	2	300	50		5/28/04	1:39:36 PM	F4E050284-002
25	12	8	20	1.2	0.215	5.7	1.1	2	298	40		5/28/04	2:00:39 PM	F4E120257-001
25	12	9	20	100.5	0.213	471.2	58.6	101	291	1		5/28/04	2:21:43 PM	F4E120257-001S
25	12	10	20	1.7	0.214	7.8	1.6	2	294	36		5/28/04	2:42:46 PM	F4E120257-001X



STL

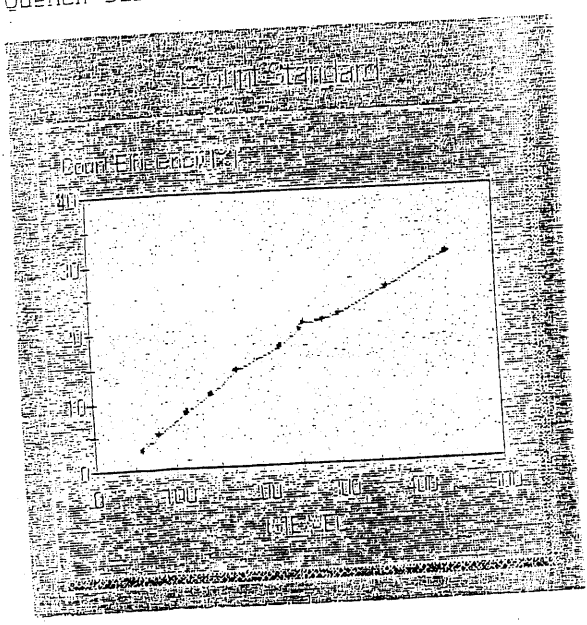
QUENCH CURVE

H-3

3170

Cycle 1 Results					MESSAGES	TIME
S#	Count	Time	CPMA	SIS	tSIE	
1	20.00	220.08	10.02	445.54	S	5:30:15 PM
2	20.00	184.58	8.85	365.83	S	5:51:52 PM
3	20.00	158.34	8.06	304.87	S	6:13:28 PM
4	20.00	153.31	7.88	284.76	S	6:35:04 PM
5	20.00	151.09	7.76	259.85	S	6:56:39 PM
6	20.00	144.79	7.46	254.64	S	7:18:14 PM
7	20.00	126.50	7.18	228.94	S	7:39:49 PM
8	20.00	102.37	6.47	174.11	S	8:01:25 PM
9	20.00	78.96	6.04	142.95	S	8:23:01 PM
10	20.00	60.47	5.54	114.98	S	8:44:42 PM
11	20.00	36.29	5.03	81.42	S	9:06:17 PM
12	20.00	21.37	4.64	60.05	S	9:27:53 PM

Quench Curve Block Data



Date Acquired: 12/11/03  
 Date Modified:  
 Count Standard

tSIE/AEC	Count Efficiency (%)
445.54	30.11
365.83	25.25
304.87	21.66
284.76	20.97
259.85	20.67
254.64	19.81
228.94	17.31
174.11	14.00
142.95	10.80
114.98	8.27
81.42	4.96
60.05	2.92

H3 Quench Curve 12/12/03 LSC 3170

Std is 1mL of 00-005 (3152.74 dpm/mL) diluted 4mL to 14mL

Decay corrected to 12/12/03 = 730.66 dpm/mL or 229.126 pCi/mL  
Cocktail is Ultima Gold LLT

Std #	mL H2O	mL 00-005	mL UGLLT	uL Nitromethane
1	4	1	15	0
2	7	1	12	0
3	9	1	10	5
4	9	1	10	10
5	9	1	10	15
6	9	1	10	25
7	9	1	10	50
8	9	1	10	75
9	9	1	10	100
10	9	1	10	150
11	9	1	10	200
12	9	1	10	

Tritium					
Initial Activity:	1420.153153	pCi			
Reference Date:	3/10/2000				
Current Date:	12/11/2003				
Elapsed Time:	1371	days			
Half Life:	4540.0575	days			
Exponential Term:	0.811139213				
Corrected Activity:	1151.941911	pCi			
			2557.311	dpm	
			108961.4		
		(or date at which you wish to determine activity)			
			4/14mL		
			730.6603		

Decay Correction

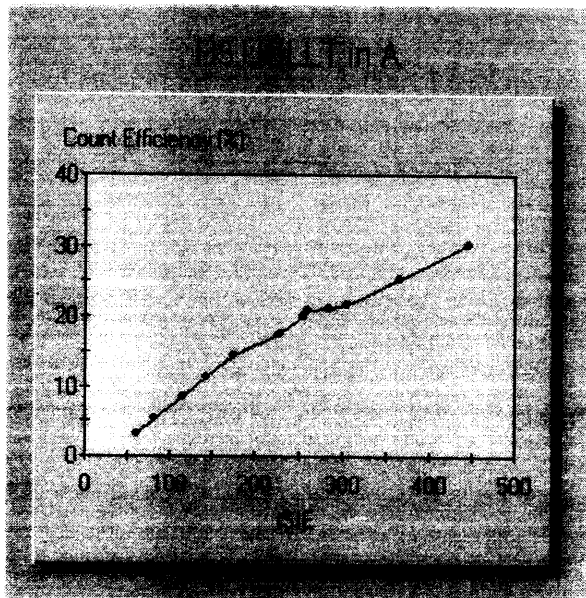
3170

5/29/04 7:19:24 PM  
Protocol# 25 - 3H UGLLT 25.lsa

QuantaSmart (TM) - 1.31 - Serial# 429670

Page # 1  
User: Chemist

Cycle 1 Results  
Quench Curve Block Data



Date Acquired: 12/11/2003  
Date Modified: 11/17/2003  
H3 UGLLT in A

tSIE	Count Efficiency (%)
445.54	30.19
365.83	25.38
304.87	21.77
284.76	21.11
259.85	20.94
254.64	20.07
228.94	17.55
174.11	14.38
142.95	11.13
114.98	8.56
81.42	5.25
60.05	3.16

SPL  
Denver

P#	PID	S#	C.T.	CPMA	EFF	DPM1	CPMB	CPMC	tSIE	LUM	NOTE	DATE	TIME	SMPL ID
25	2	1	20	1.2	0.214	5.7	1.4	2	294	44		5/29/04	12:39:46 PM	BKG
25	2	2	20	1.3	0.216	5.9	1.5	2	300	39		5/29/04	1:00:51 PM	F4E280000-150B
25	2	3	20	41.4	0.214	193.2	25.9	42	295	2		5/29/04	1:21:55 PM	F4E280000-150C
25	2	4	20	1.0	0.214	4.6	1.1	2	295	45		5/29/04	1:42:57 PM	D4E190262-001
25	2	5	20	1.0	0.216	4.7	1.2	2	300	45		5/29/04	2:04:00 PM	D4E190262-002
25	2	6	20	1.7	0.213	8.0	1.5	2	291	36		5/29/04	2:25:03 PM	D4E190262-004
25	2	7	20	0.8	0.215	3.5	0.8	2	296	59		5/29/04	2:46:06 PM	D4E210325-001
25	2	8	20	1.4	0.213	6.4	1.5	2	291	37		5/29/04	3:07:09 PM	D4E210325-002
25	2	9	20	1.8	0.216	8.2	1.7	3	301	31		5/29/04	3:28:12 PM	D4E210325-003
25	2	10	20	2.6	0.212	12.2	2.3	3	287	24		5/29/04	3:49:15 PM	D4E210325-004
25	2	11	20	1.2	0.217	5.6	1.2	2	303	40		5/29/04	4:10:18 PM	D4E210325-005
25	2	12	20	1.0	0.216	4.7	1.3	2	299	45		5/29/04	4:31:21 PM	D4E210325-006
25	20	13	20	0.9	0.216	4.0	1.1	1	300	50		5/29/04	4:52:30 PM	D4E210325-008
25	20	14	20	41.6	0.211	197.0	24.1	42	282	2		5/29/04	5:13:34 PM	D4E210325-008S
25	20	15	20	3.1	0.221	13.9	2.5	4	311	19		5/29/04	5:34:38 PM	D4E210325-009
25	20	16	20	3.0	0.216	13.9	2.3	4	300	23		5/29/04	5:55:41 PM	D4E210325-009X
25	20	17	20	1.1	0.213	4.9	1.1	2	292	46		5/29/04	6:16:45 PM	D4E260231-001
25	20	18	20	30.4	0.212	143.3	18.0	31	287	2		5/29/04	6:37:48 PM	F4E070121-001
25	20	19	20	1.2	0.213	5.7	1.3	2	290	45		5/29/04	6:58:51 PM	F4E120234-001



**STL**

**RUN LOG**



STL  
St. Louis Laboratory

Liquid Scintillation Counter Runlog

Date	Batch #	Sample #	Protocol	Position	Count Time	Analysis	Initials
5-27-04	4147102	BKGS	18	1	20"	C <sup>14</sup>	IV
		F4E050284-01		2			
		L 01X		3			
		L 03		4			
		F4E260000-1028		5			
		L 102C		6			
5-28-04	4147231	Daily BKGS + Sum			60" BKGS	CEA	PAR
	4147231	BKGS	22	1	15"	3H	IV
		F4E190106-01		2			
		L 02		3			
		L 03		4			
		L 035		5			
		F4E200206-01		6			
		L 01X		7			
		F4E200207-01		8			
		L 02		9			
		F4E200261-01		10			
		L 02		11			
		L 03		12			
		L 04		1			
		L 05		2			
		L 06		3			
		F4E200299-01		4			
		L 03		5			
		L 05		6			
		F4E210145-03		7			
		F4E250116-01		8			
		L 02		9			

Reviewed By: PAR Date: 5-28-04

Form: SL-RAD-0027, revised 7/16/03; SOP Reference: STL-RD-0302, current revision  
 QC Type Suffixes: B=Blank; C=Laboratory Control Sample; L=Laboratory Control Sample Duplicate; S=Matrix Spike; D=Matrix Spike Duplicate; X=Sample Duplicate.

STL  
St. Louis Laboratory

Liquid Scintillation Counter Runlog

Date	Batch #	Sample #	Protocol	Position	Count Time	Analysis	Initials
5-28-4	4147231	F4E250116-03	22	10	15"	3H	RA
↓	↓	F4E260000-231B	↓	11	↓	↓	↓
↓	↓	L 231C	↓	12	↓	↓	↓
5-28-4	4145378	Bkg	25	1	20min	H3	↓
↓	↓	F4E 270000-318B	↓	2	↓	↓	↓
↓	↓	-318C	↓	3	↓	↓	↓
↓	↓	D4E 210325-010	↓	4	↓	↓	↓
↓	↓	F4E 070104-003	↓	5	↓	↓	↓
↓	↓	-008	↓	6	↓	↓	↓
↓	↓	F4E 070284-002	↓	7	↓	↓	↓
↓	↓	F4E 120257-001	↓	8	↓	↓	↓
↓	↓	-005	↓	9	↓	↓	↓
↓	↓	-001X	↓	10	↓	↓	↓
5-28-4	4146176	Bkg	22	1	30min	H3	↓
↓	↓	F4E 270000-176B	↓	2	↓	↓	↓
↓	↓	-176C	↓	3	↓	↓	↓
↓	↓	F4E 080139-001	↓	4	↓	↓	↓
↓	↓	-0015	↓	5	↓	↓	↓
↓	↓	-002	↓	6	↓	↓	↓
↓	↓	-002X	↓	7	↓	↓	↓
↓	↓	-003	↓	8	↓	↓	↓
↓	↓	-004	↓	9	↓	↓	↓
↓	↓	-005	↓	10	↓	↓	↓
↓	↓	-006	↓	11	↓	↓	↓
↓	↓	-007	↓	12	↓	↓	↓
↓	↓	-008	↓	13	↓	↓	↓
↓	↓	-009	↓	14	↓	↓	↓
↓	↓	-010	↓	15	↓	↓	↓

Reviewed By: [Signature] Date: 5-28-4

Form: SL-RAD-0027, revised 7/16/03; SOP Reference: STL-RD-0302, current revision  
 QC Type Suffixes: B=Blank; C=Laboratory Control Sample; L=Laboratory Control Sample Duplicate; S=Matrix Spike; D=Matrix Spike Duplicate; X=Sample Duplicate. 44



**STL**

## Run Log

Instrument: 3170

Logbook No.: 2489

STL  
St. Louis Laboratory

Liquid Scintillation Counter Runlog

Date	Batch #	Sample #	Protocol	Position	Count Time	Analysis	Initials
5-29-4	Daily	Blank Jarve			60 min	QA	
5-29-4	4148316	Blank	23	1	20 min	H3	
		F4E 270000-316B		2			
		-SRC		3			
		F4B080143001		4			
		-DUA		5			
		F4C090147-001		6			
		-DUA		7			
5-29-4	4146145	BK5	8	1	20"	TC 99	IV
		F4E070250-01					
		02					
		04					
		05					
		06					
		07					
		08					
		09					
		10					
		11					
		12					
		13					
		14					
		15					
		16					
		17					
		18					
		19					
		F4E250000-145B					

Reviewed By: Roa

Date: 5/29/04

Form: SL-RAD-0027, revised 7/16/03; SOP Reference: STL-RD-0302, current revision  
QC Type Suffixes: B=Blank; C=Laboratory Control Sample; L=Laboratory Control Sample Duplicate; S=Matrix Spike; D=Matrix Spike Duplicate; X=Sample Duplicate.

STL  
St. Louis Laboratory

Liquid Scintillation Counter Runlog

Date	Batch #	Sample #	Protocol	Position	Count Time	Analysis	Initials
5-28-04	4146145	F4E250000-145C	8	12	20"	TC99	IL
	✓	145L	✓	✓	✓		
	4146159	BKG	11	1	20"		
		F4E120263-01					
		01X					
		04					
		06					
		08					
		11					
		12					
		✓ 13					
		F4E120268-07					
		08					
		09					
		10					
		11					
		14					
		15					
		17					
		18					
		23					
		26					
		30					
		✓ 31					
		F4E250000-159B					
		159C					
5-29-04	Dent	BKG + Source	-	-	60 min BKG	QA	RA
✓	4149150	BKG	25	1	20"	3H	L

Reviewed By: RA Date: 5/29/04

Form: SL-RAD-0027, revised 7/16/03; SOP Reference: STL-RD-0302, current revision  
 QC Type Suffixes: B=Blank; C=Laboratory Control Sample; L=Laboratory Control Sample Duplicate; S=Matrix Spike; D=Matrix Spike Duplicate; X=Sample Duplicate.

STL  
St. Louis Laboratory

Liquid Scintillation Counter Runlog

Date	Batch #	Sample #	Protocol	Position	Count Time	Analysis	Initials
5-29-4	4149150	F4E280000-150B	25	2	20"	3H	RAW
		↓ 150C					
		D4E190262-01					
		↓ 02					
		↓ 04					
		D4E210325-01					
		↓ 02					
		↓ 03					
		↓ 04					
		↓ 05					
		↓ 06					
		↓ 08					
		↓ 08S					
		↓ 09					
		↓ 09X					
		D4E260231-01					
		F4E070121-01					
		F4E120234-01					
5-29-4	4149435	RIKs	21	1	30"	H <sup>3</sup>	RAW
		F4E280000-435B					
		↓ 435C					
		F4E140261-01					
		↓ 02					
		↓ 03					
		↓ 04					
		↓ 05					
		↓ 06					
		↓ 07					

Reviewed By: RAW

Date: 5/29/4

Form: SL-RAD-0027, revised 7/16/03; SOP Reference: STL-RD-0302, current revision  
 QC Type Suffixes: B=Blank; C=Laboratory Control Sample; L=Laboratory Control Sample Duplicate; S=Matrix Spike; D=Matrix Spike Duplicate; X=Sample Duplicate.

STL  
St. Louis Laboratory

Liquid Scintillation Counter Runlog

Date	Batch #	Sample #	Protocol	Position	Count Time	Analysis	Initials
5-29-4	4149435	F4E140261-08	21	9	30"	3H	RAK
		09					
		10					
		11					
		12					
		13					
		14					
		15					
		16					
		17					
		17X					
		18					
		185					
		19					
5-30-04	Daily BKG & Source ✓		—	—	60" BKG	CA A	RAK
	4150037	BKG	#23	1	20"	3H	
		F4E200279-01					
		02					
		03					
		04					
		05					
		06					
		07					
		F4E220125-02					
		02D					
		02S					
		03					
		04					

Reviewed By: Jan Date: 5-30-4

Form: SL-RAD-0027, revised 7/16/03; SOP Reference: STL-RD-0302, current revision  
 QC Type Suffixes: B=Blank; C=Laboratory Control Sample; L=Laboratory Control Sample Duplicate; S=Matrix Spike; D=Matrix Spike Duplicate; X=Sample Duplicate.

Prot 25 20 min 3170



# STL

## Prep Report for Tritium in Water by LSC

STL St. Louis  
13715 Rider Trail North  
Earth City, MO 63045

Batch: 4149150

Prep Analyst: 402035

SampID	WRKNO	Aliquot	Volume Used
D4E190262-001	GGJX41AF	100.0000 mL	10.0000 mL
D4E190262-002	GGJX61AF	100.0000 mL	10.0000 mL
D4E190262-004	GGJX91AF	100.0000 mL	10.0000 mL
D4E210325-001	GGTEE1AF	100.0000 mL	10.0000 mL
D4E210325-002	GGTE31AF	100.0000 mL	10.0000 mL
D4E210325-003	GGTE61AF	100.0000 mL	10.0000 mL
D4E210325-004	GGTE71AF	100.0000 mL	10.0000 mL
D4E210325-005	GGTFE1AF	100.0000 mL	10.0000 mL
D4E210325-006	GGTFH1AF	100.0000 mL	10.0000 mL
D4E210325-008	GGTFX1AF	100.0000 mL	10.0000 mL
D4E210325-008S	GGTFX1AG	100.0000 mL	10.0000 mL
D4E210325-009	GGTF31AF	100.0000 mL	10.0000 mL
D4E210325-009X	GGTF31AG	100.0000 mL	10.0000 mL
D4E260231-001	GG4FQ1AA	100.0000 mL	10.0000 mL
F4E070121-001	GFQDR1AE	100.0000 mL	10.0000 mL
F4E120234-001	GF3551AE	100.0000 mL	10.0000 mL
F4E280000-150B	GG9A91AA	100.0000 mL	10.0000 mL



<u>SampID</u>	<u>WRKNO</u>	<u>Aliquot</u>	<u>Volume Used</u>
F4E280000-150C	GG9A91AC	100.0000 mL	10.0000 mL



**Spike Information**

<u>Sample ID</u>	<u>Standard ID</u>	<u>Analyte</u>	<u>Std Conc</u>	<u>Aliquot</u>	<u>Ref Date</u>	<u>StdAdded</u>
D4E210325-008S	00034	H-3	2.274E+003 dpm/mL	1.00 mL	6/6/2000 12:00:00AM	8.542E+003 pCi/L
F4E280000-150C	00034	H-3	2.274E+003 dpm/mL	1.00 mL	6/6/2000 12:00:00AM	8.542E+003 pCi/L

BB Spiked By     
 PB Spike Verified By     
 5/28/04 Spike Date

**Standard Operating Procedures**

<u>SOPNumber</u>	<u>Title</u>	<u>Revision</u>
<input checked="" type="checkbox"/> STL-RC-0030	The Determination Of Tritium In Water (and Other Fluids), Soil and Silica Gels	4.00
<input type="checkbox"/> STL-RC-5048	Radiochemical Determination Of Tritium In Soil, Vegetation And Other Biological Samples Azeotropic Method	0.00

[Signature] Reviewed By     
 5-1-4 Review Date

BB Analyst/Relinquished By     
 5/28/04 Release Date     
 [Signature] Received By     
 5/28/04 Receipt Date



# STL

### Prep Report for Tritium in Soil by LSC

STL St. Louis  
13715 Rider Trail North  
Earth City, MO 63045

Batch: 4148318

Prep Analyst: 402016

SampID	WRKNO	Aliquot	Volume Added	Volume Used
D4E210325-010	GGTF41AA	20.5000 g	40.0000 mL	10.0000 mL
F4E050104-003	GFH6F1CK	64.2700 g	100.0000 mL	10.0000 mL
F4E050104-008	GFH771CK	12.6900 g	100.0000 mL	10.0000 mL
F4E050284-002	GFL0G1A5	20.0000 g	100.0000 mL	10.0000 mL
F4E120257-001	GF4DR1AG	4.5700 g	40.0000 mL	10.0000 mL
F4E120257-001S	GF4DR1AJ	4.7000 g	40.0000 mL	10.0000 mL
F4E120257-001X	GF4DR1AK	4.4700 g	40.0000 mL	10.0000 mL
F4E270000-318B	GG6161AA	40.0000 g	0.0000 mL	10.0000 mL
F4E270000-318C	GG6161AC	40.0000 g	0.0000 mL	10.0000 mL

### Spike Information

Sample ID	Standard ID	Analyte	Std Conc	Aliquot	Ref Date	Std Added
F4E120257-001S	00034	H-3	2.274E+003 dpm/mL	1.00 mL	6/6/2000 12:00:00AM	1.819E+002 pCi/g
F4E270000-318C	00034	H-3	2.274E+003 dpm/mL	1.00 mL	6/6/2000 12:00:00AM	2.137E+001 pCi/g

LA  
Spiked By

[Signature]  
Spike Verified By

05/27/04  
Spike Date

### Standard Operating Procedures

SOPNumber	Title	Revision
-----------	-------	----------

[Signature]

Reviewed By

5/28/04

Review Date

LA

Analyst/Relinquished By

05/27/04

Release Date

[Signature]

Received By

05/27/04

Receipt Date

3120  
Protocol 25

20m.4



**STL**

**Analysis Report for Tritium in Soil by LSC**

**Batch: 4148318**

**Operator: 60040**

STL St. Louis  
13715 Rider Trail North  
Earth City, MO 63045

<i>Sample Information</i>				<i>Count Information</i>					<i>Results</i>		
<u>Sample ID</u>	<u>Aliquot</u>	<u>Vol Added</u>	<u>Instrument</u>	<u>SampEff</u>	<u>SampCPM</u>	<u>SampDPM</u>	<u>RunDateTime</u>	<u>Activity</u>	<u>UncTotal</u>	<u>MDA</u>	
<u>Work Order #</u>	<u>% Moisture</u>	<u>Vol Counted</u>	<u>Sigma</u>	<u>BkgEff</u>	<u>BkgCPM</u>	<u>BkgDPM</u>	<u>Run Duration</u>		<u>UncCount</u>	<u>DLC</u>	
D4E210325-010	20.5000 g	40.00 mL	LSC3170	0.2140	0.83	3.89	5/28/04 12:36	2.461E-002	2.793E-001	4.328E+001	
GGTF41AA	0.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	2.793E-001	1.887E-001	
F4E050104-003	64.2700 g	100.00 mL	LSC3170	0.2170	1.06	4.87	5/28/04 12:57	8.831E-002	1.915E-001	3.404E+001	
GFH6F1CK	0.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	1.913E-001	1.484E-001	
F4E050104-008	12.6900 g	100.00 mL	LSC3170	0.2170	1.20	5.54	5/28/04 13:18	6.851E-001	1.029E+000	1.724E+000	
GFH771CK	0.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	1.026E+000	7.515E-001	
F4E050284-002	20.0000 g	100.00 mL	LSC3170	0.2160	0.91	4.22	5/28/04 13:39	1.374E-001	6.146E-001	1.099E+000	
GFL0G1A5	0.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	6.144E-001	4.790E-001	
F4E120257-001	4.5700 g	40.00 mL	LSC3170	0.2150	1.23	5.69	5/28/04 14:00	8.201E-001	1.158E+000	1.932E+000	
GF4DR1AG	0.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	1.155E+000	8.425E-001	
F4E120257-001S	4.7000 g	40.00 mL	LSC3170	0.2130	100.51	471.19	5/28/04 14:21	1.793E+002	1.967E+001	1.897E+000	
GF4DR1AJ	0.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	8.090E+000	8.269E-001	
F4E120257-001X	4.4700 g	40.00 mL	LSC3170	0.2140	1.66	7.76	5/28/04 14:42	1.673E+000	1.338E+000	1.985E+000	
GF4DR1AK	0.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	1.328E+000	8.654E-001	
F4E270000-318B	40.0000 g	0.00 mL	LSC3170	0.2130	1.06	4.98	5/28/04 11:54	6.171E-002	1.338E-001	2.229E+001	
GG6161AA	1.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	1.337E-001	9.716E-002	
F4E270000-318C	40.0000 g	0.00 mL	LSC3170	0.2130	102.49	480.96	5/28/04 12:15	2.150E+001	2.355E+000	2.229E+001	
GG6161AC	1.0000	10.00 mL	2.00	0.2140	0.78	3.61	20.00	pCi/g	9.608E-001	9.716E-002	

**Laboratory Control Sample Information**

<u>Sample ID</u>	<u>WRKNO</u>	<u>Activity</u>	<u>StdAdded</u>	<u>Recovery</u>
F4E270000-318C	GG6161AC	2.150E+001 pCi/g	2.048E+001	104.99%

**Sample Duplicate Information**

<u>Sample ID</u>	<u>Sample Activity</u>	<u>Dup Sample ID</u>	<u>Dup Activity</u>	<u>RPD</u>	<u>RER</u>
F4E120257-001	8.201E-001 pCi/g	F4E120257-001X	1.673E+000 pCi/g	68.41%	0.34

**Matrix Spike Information**

<u>SampID</u>	<u>SampMSID</u>	<u>Sample Activity</u>	<u>MS Activity</u>	<u>StdAdded</u>	<u>MSRecovery</u>
F4E120257-001	F4E120257-001S	8.201E-001 pCi/g	1.793E+002 pCi/g	1.743E+002	102.37%



**STL**

## **Instrument Checks**

5/28/04 11:32:32 AM

QuantaSmart (TM) - 1.31 - Serial# 429670

Page # 1

SNC Protocol

## Calibration Information

Software Version IC: 2.11

Software Version EC: 1.31

Instrument Model: Tri-Carb 3170TR/SL

Instrument Serial Number: 429670

3H Chi Square: 27.55 Date Processed: 2/27/04 1:05:43 PM

14C Chi Square: 22.31 Date Processed: 2/27/04 1:05:43 PM

3H E<sup>2</sup>/B (1-18.6 keV): 1454.28 Date Processed: 5/28/04 11:32:30 AM14C E<sup>2</sup>/B (4-156 keV): 5849.45 Date Processed: 5/28/04 11:32:30 AM

3H Efficiency (0-18.6 keV): 63.21 Date Processed: 5/28/04 11:32:30 AM

14C Efficiency (0-156 keV): 95.59 Date Processed: 5/28/04 11:32:30 AM

IPA Background Date Processed: 5/28/04 11:32:30 AM

3H Background CPM (0-18.6 keV): 2.74 Date Processed: 5/28/04 11:32:30 AM

14C Background CPM (0-156 keV): 3.00 Date Processed: 5/28/04 11:32:30 AM

3H Calibration DPM: 280500

3H Reference Date: 6/4/02

14C Calibration DPM: 120600



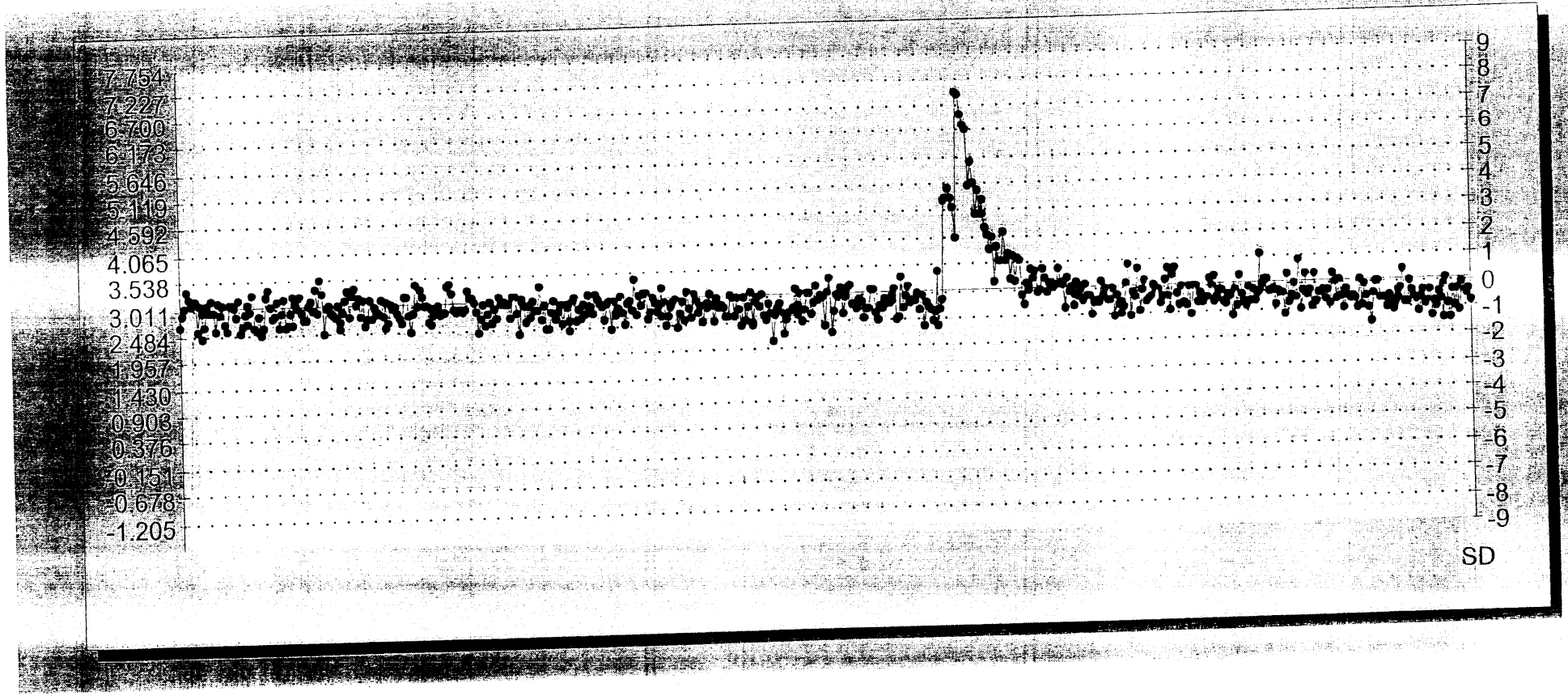
**STL**

## **LSC Instrument Check**

**3170**

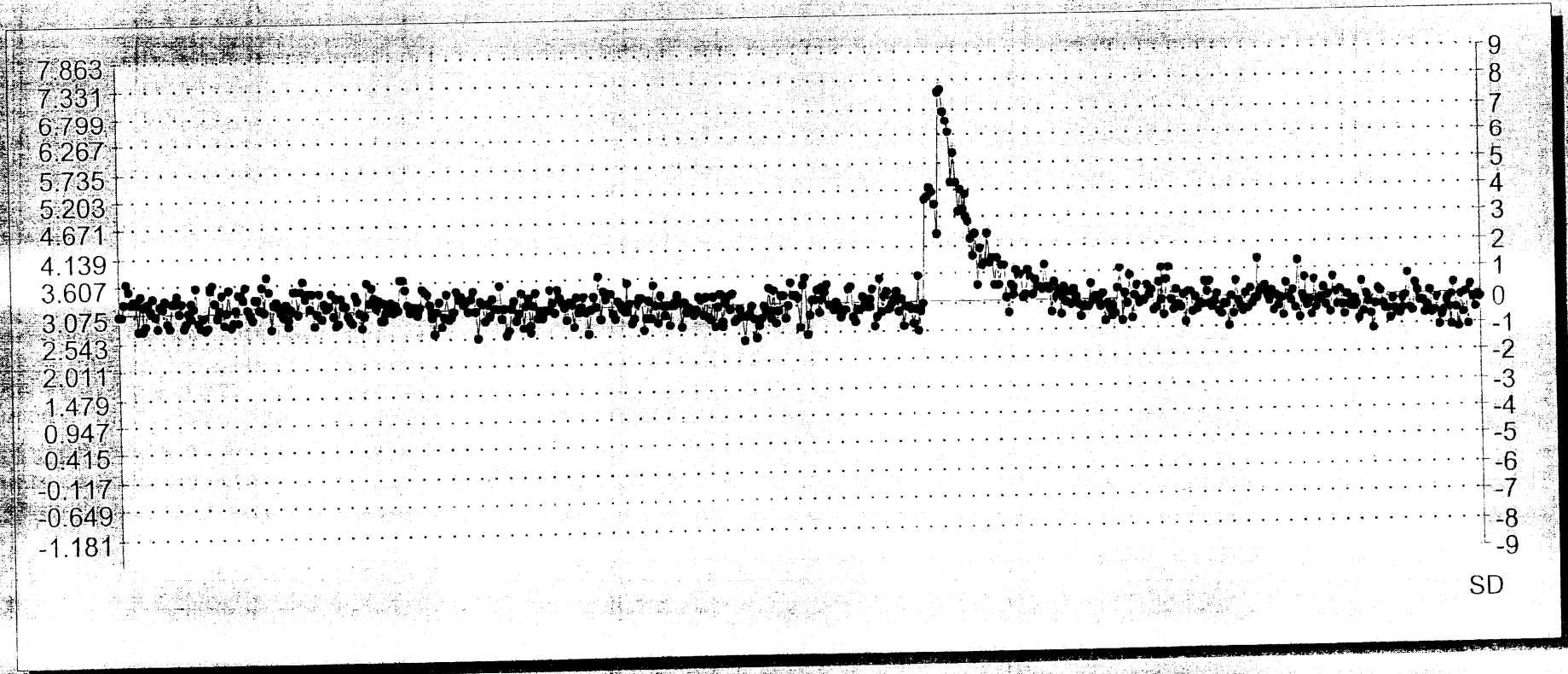
**5/23/04**

TL  
3 Background Baseline Oct 08, 2002 - Present  
Total # pts : 596  
Valid # pts : 596  
Mean : 2.95  
Baseline SD : 0.53  
Baseline Mean : 3.01



10C Background Baseline Oct 08, 2002 - Present

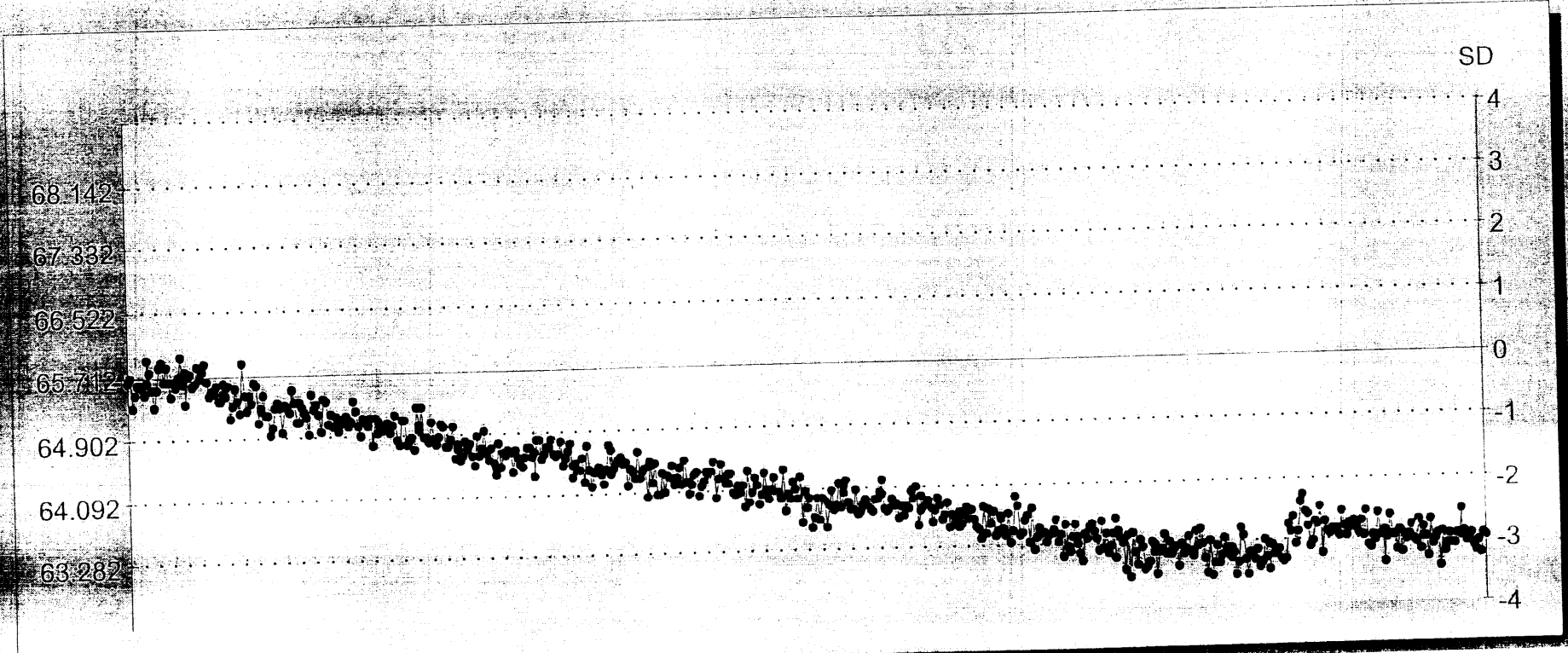
Total # pts : 596  
Valid # pts : 596  
Mean : 3.18  
Baseline SD : 0.53  
Baseline Mean : 3.08





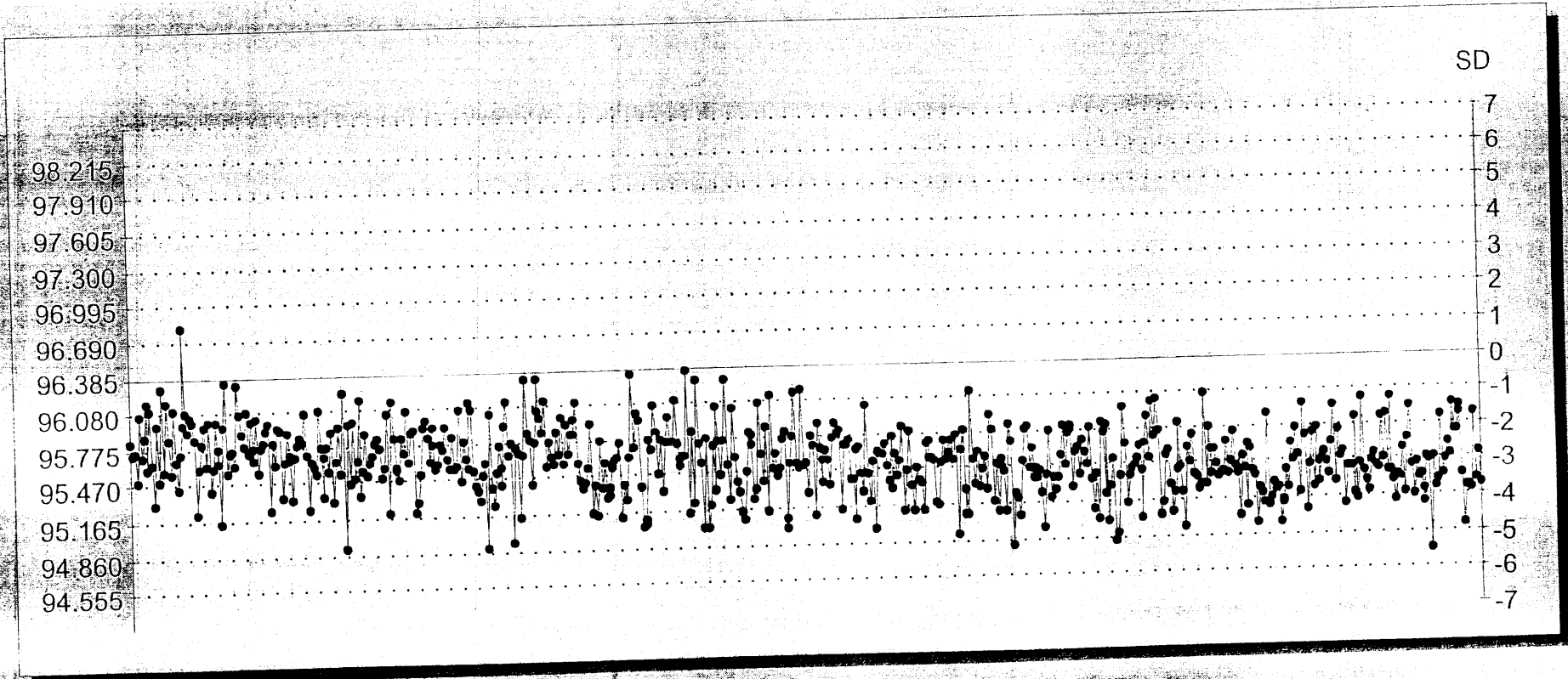
Efficiency Baseline Oct 08, 2002 - Present

Total # pts : 600  
Valid # pts : 600  
Mean : 64.12  
Baseline SD : 0.81  
Baseline Mean : 65.71



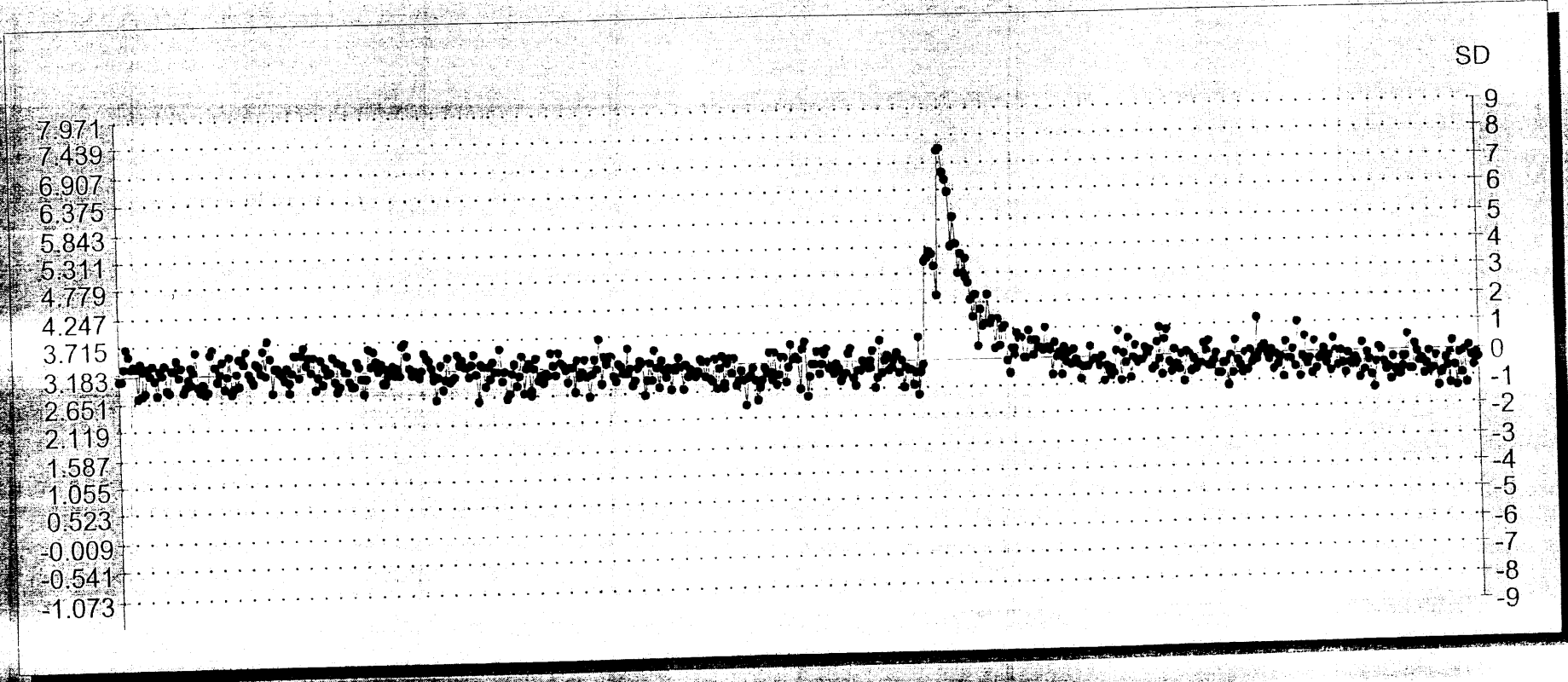
TL  
D  
C Efficiency Baseline Sep 17, 2002 - Present

Total # pts : 603  
Valid # pts : 603  
Mean : 95.57  
Baseline SD : 0.30  
Baseline Mean : 96.38



TL

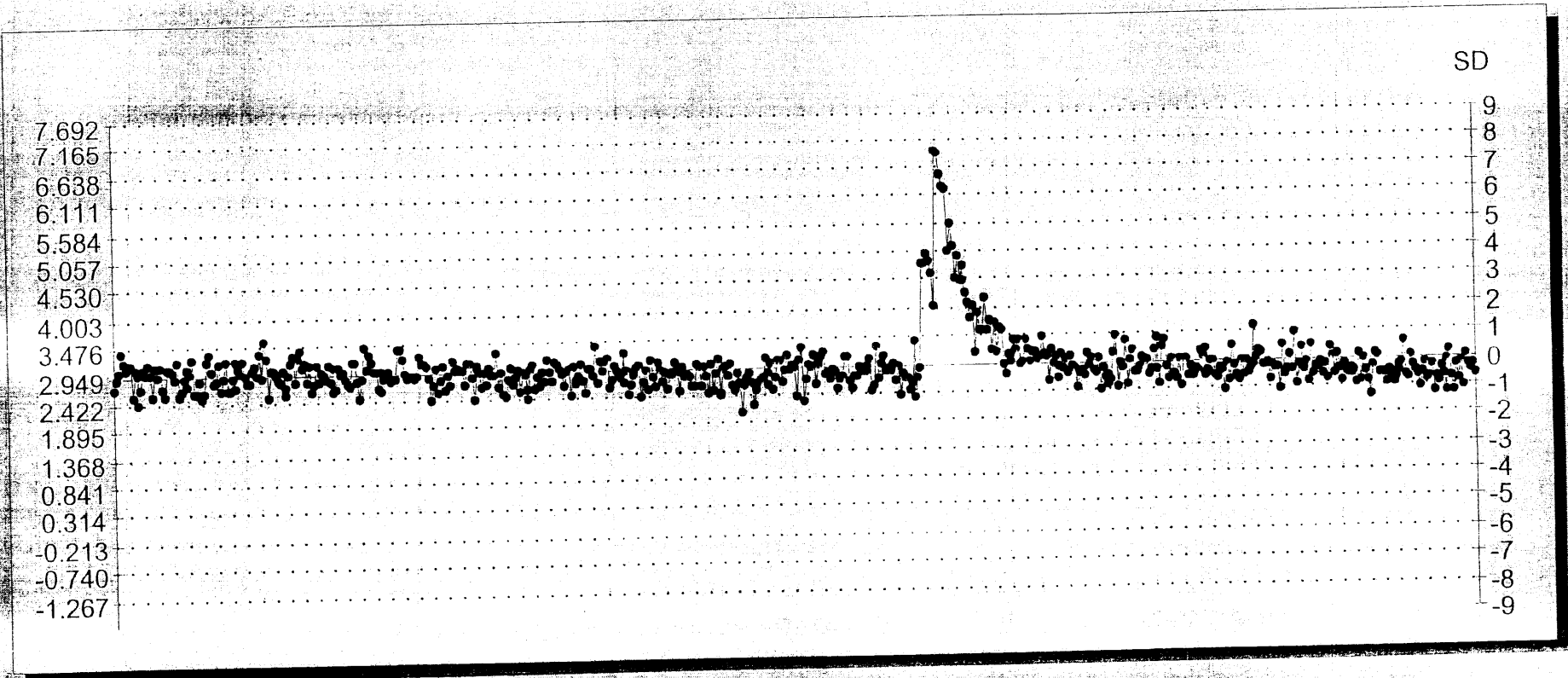
1°C Background  
Total # pts : 596  
Valid # pts : 596  
Mean : 3.18  
SD : 0.53



STL

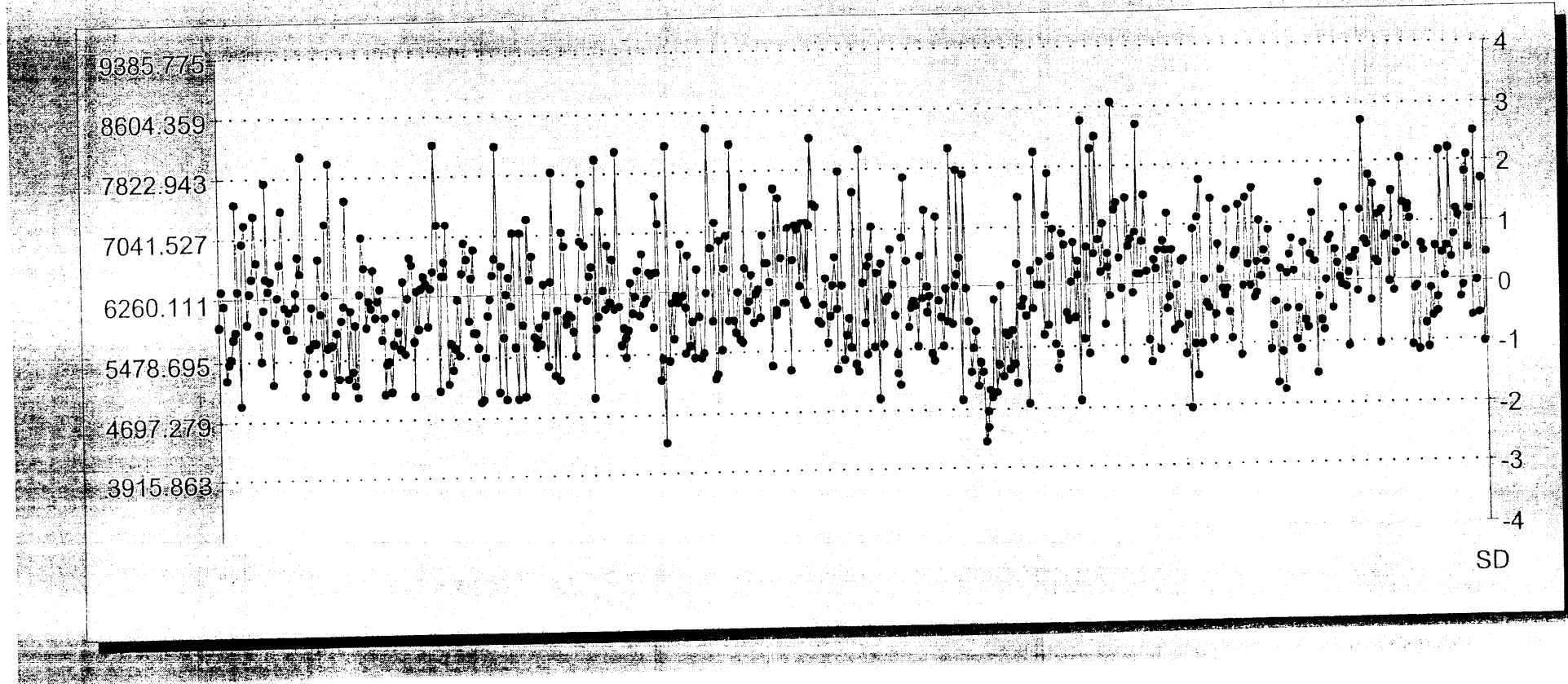
3a Background

Total # pts : 596  
Valid # pts : 596  
Mean : 2.95  
SD : 0.53



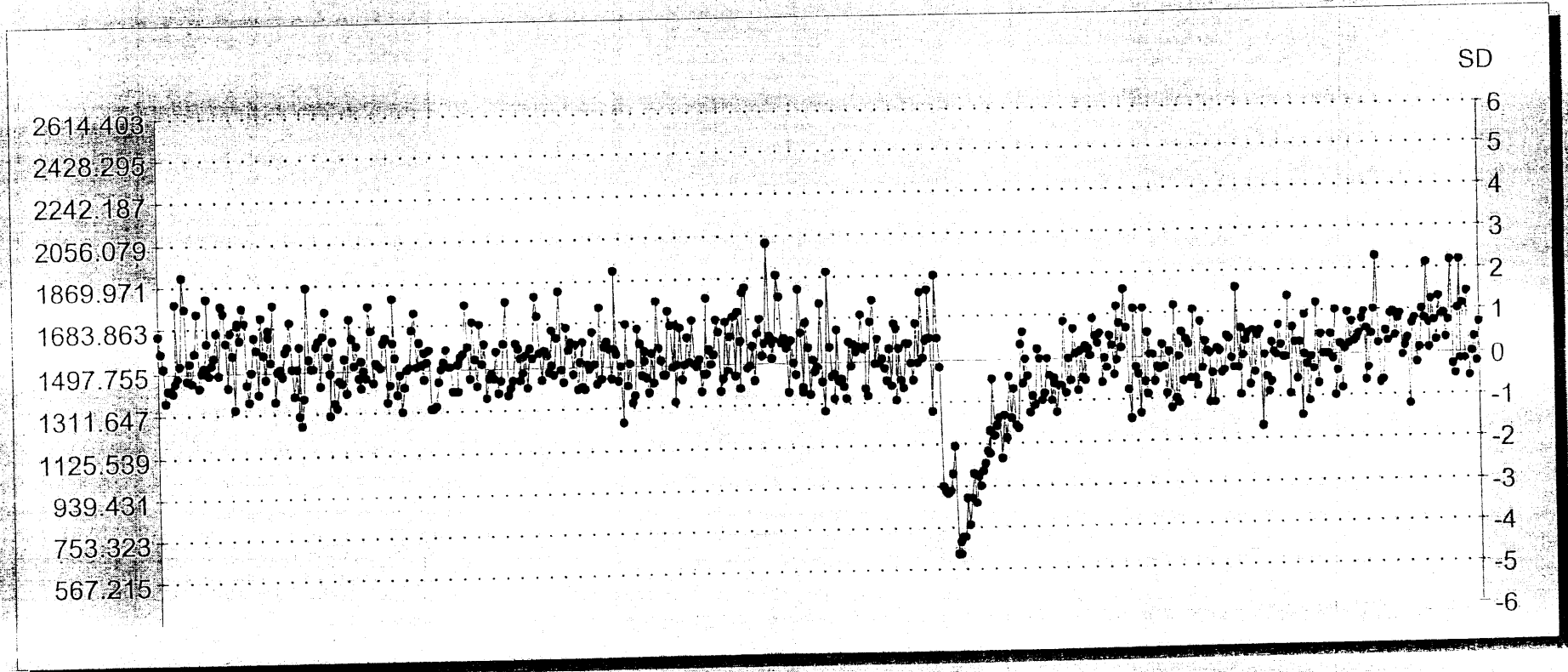
ITL

10C E^2/B  
Total # pts : 595  
Valid # pts : 595  
Mean : 6260.11  
SD : 781.42  
E^2/B Threshold : 380



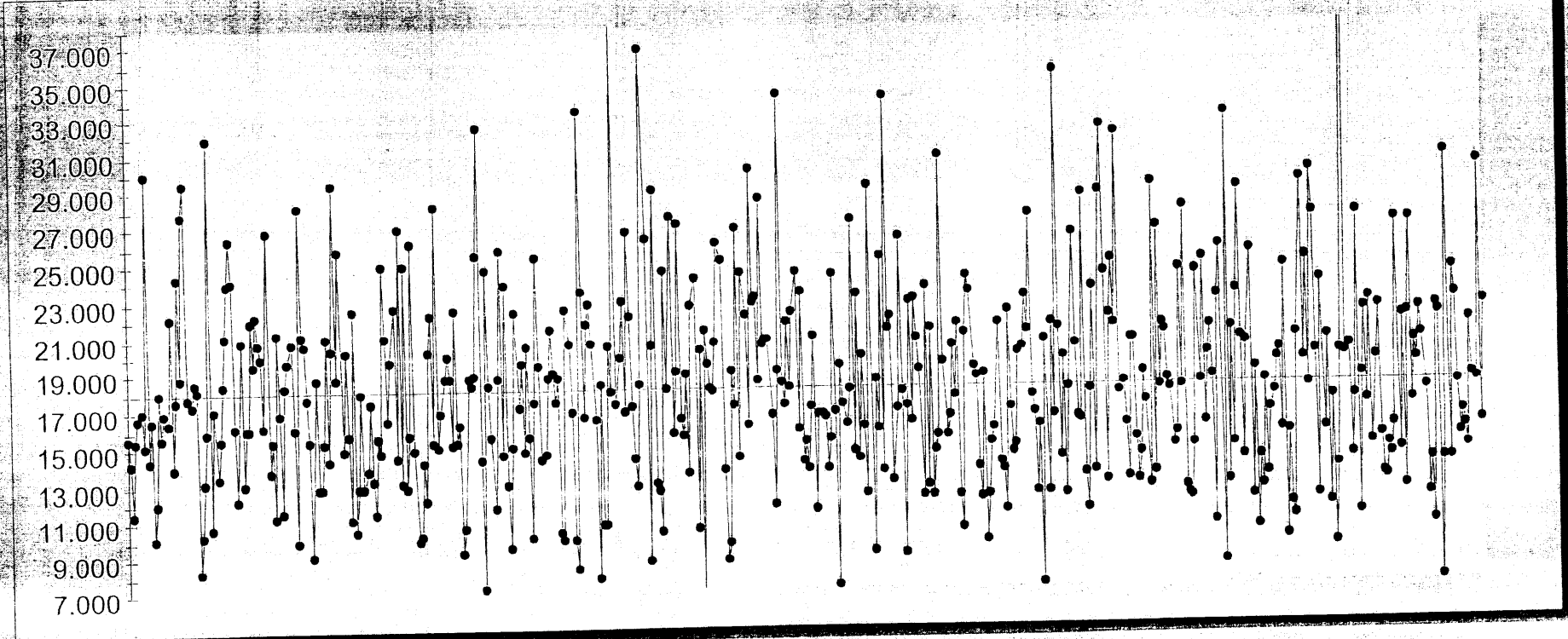
STL

SH E^2/B  
Total # pts : 595  
Valid # pts : 595  
Mean : 1497.76  
SD : 186.11  
E^2/B Threshold : 180



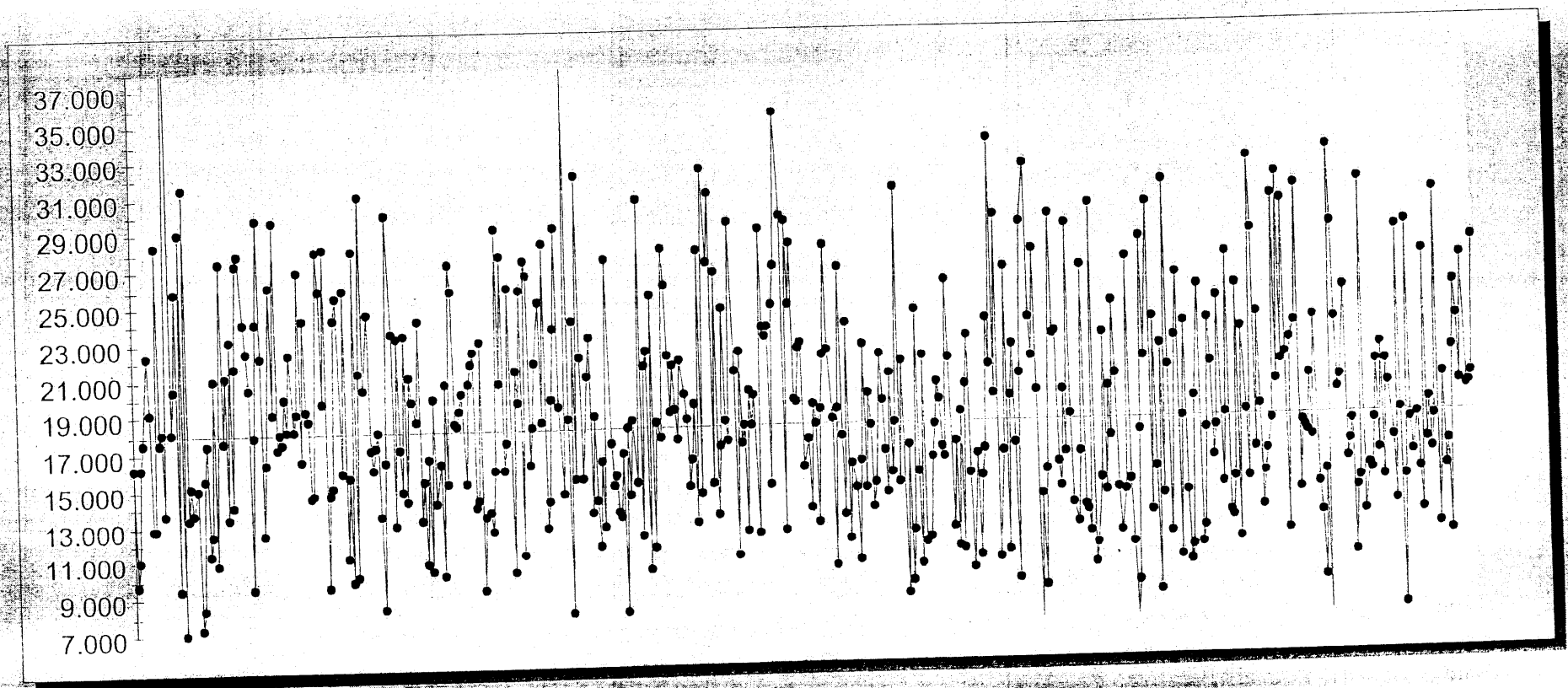
STL  
D  
C  
M  
V  
M  
S  
D

Chi Square  
Total # pts : 511  
Valid # pts : 511  
Mean : 18.17  
SD : 5.67



3/23/04 1:28:38 PM

Chi Square  
Total # pts : 510  
Valid # pts : 510  
Mean : 18.72  
SD : 6.17







**STL**

## **Instrument Checks**

QuantaSmart (TM) - 1.31 - Serial# 429670

STL Denver

5/29/04 12:05:13 AM  
SNC Protocol

## Calibration Information

Software Version IC: 2.11  
Software Version EC: 1.31Instrument Model: Tri-Carb 3170TR/SL  
Instrument Serial Number: 4296703H Chi Square: 27.55 Date Processed: 2/27/04 1:05:43 PM  
14C Chi Square: 22.31 Date Processed: 2/27/04 1:05:43 PM3H E<sup>2</sup>/B (1-18.6 keV): 1618.79 Date Processed: 5/29/04 12:05:09 AM  
14C E<sup>2</sup>/B (4-156 keV): 6628.39 Date Processed: 5/29/04 12:05:09 AM3H Efficiency (0-18.6 keV): 63.31 Date Processed: 5/29/04 12:05:09 AM  
14C Efficiency (0-156 keV): 95.65 Date Processed: 5/29/04 12:05:09 AM

IPA Background Date Processed: 5/29/04 12:05:09 AM

3H Background CPM (0-18.6 keV): 2.53 Date Processed: 5/29/04 12:05:09 AM  
14C Background CPM (0-156 keV): 2.75 Date Processed: 5/29/04 12:05:09 AM

3H Calibration DPM: 280500

3H Reference Date: 6/4/02

14C Calibration DPM: 120600

1677



**STL**

## **LSC Instrument Check**

**3170**

**5/23/04**

3H Background Baseline Oct 08, 2002 - Present

Total # pts : 596  
Valid # pts : 596  
Mean : 2.95  
Baseline SD : 0.53  
Baseline Mean : 3.01

7.754  
7.227  
6.700  
6.173  
5.646  
5.119  
4.592  
4.065  
3.538  
3.011  
2.484  
1.957  
1.430  
0.903  
0.376  
-0.151  
-0.678  
-1.205

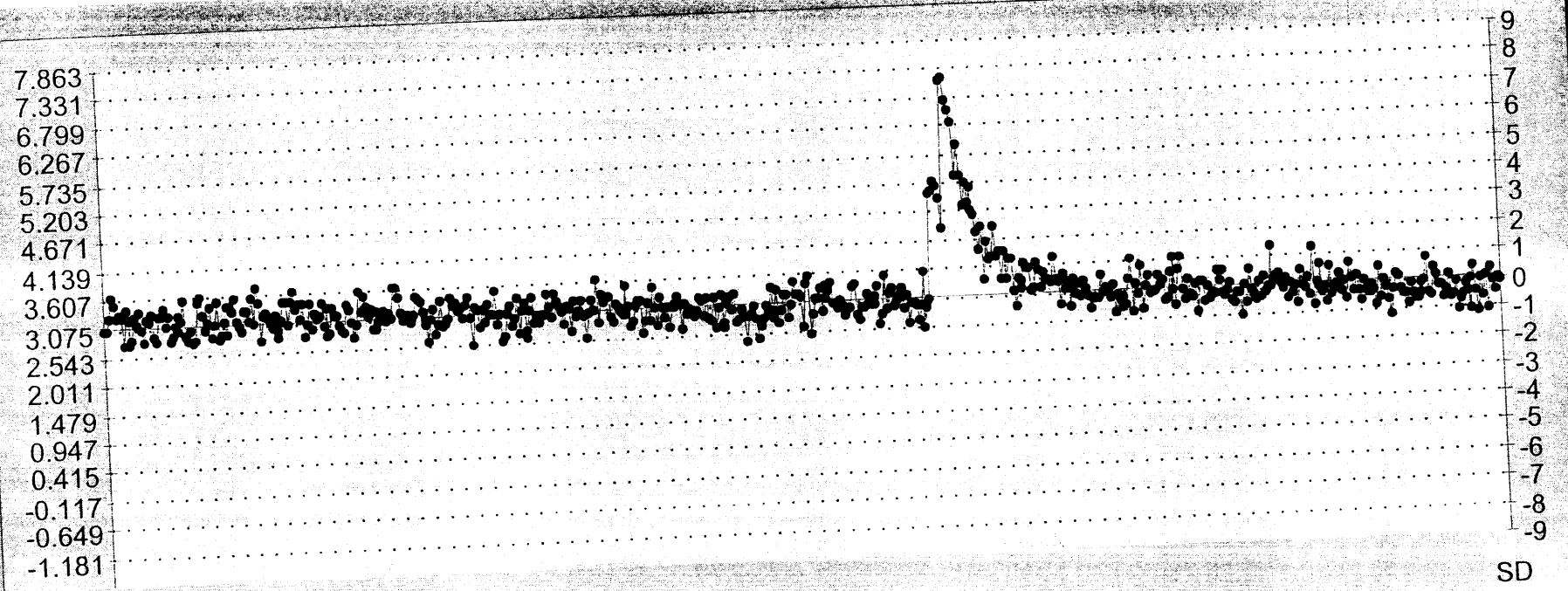
9  
8  
7  
6  
5  
4  
3  
2  
1  
0  
-1  
-2  
-3  
-4  
-5  
-6  
-7  
-8  
-9

SD

1/23/04 1:28:36 PM

4C Background Baseline Oct 08, 2002 - Present

Total # pts : 596  
 Valid # pts : 596  
 Mean : 3.18  
 Baseline SD : 0.53  
 Baseline Mean : 3.08

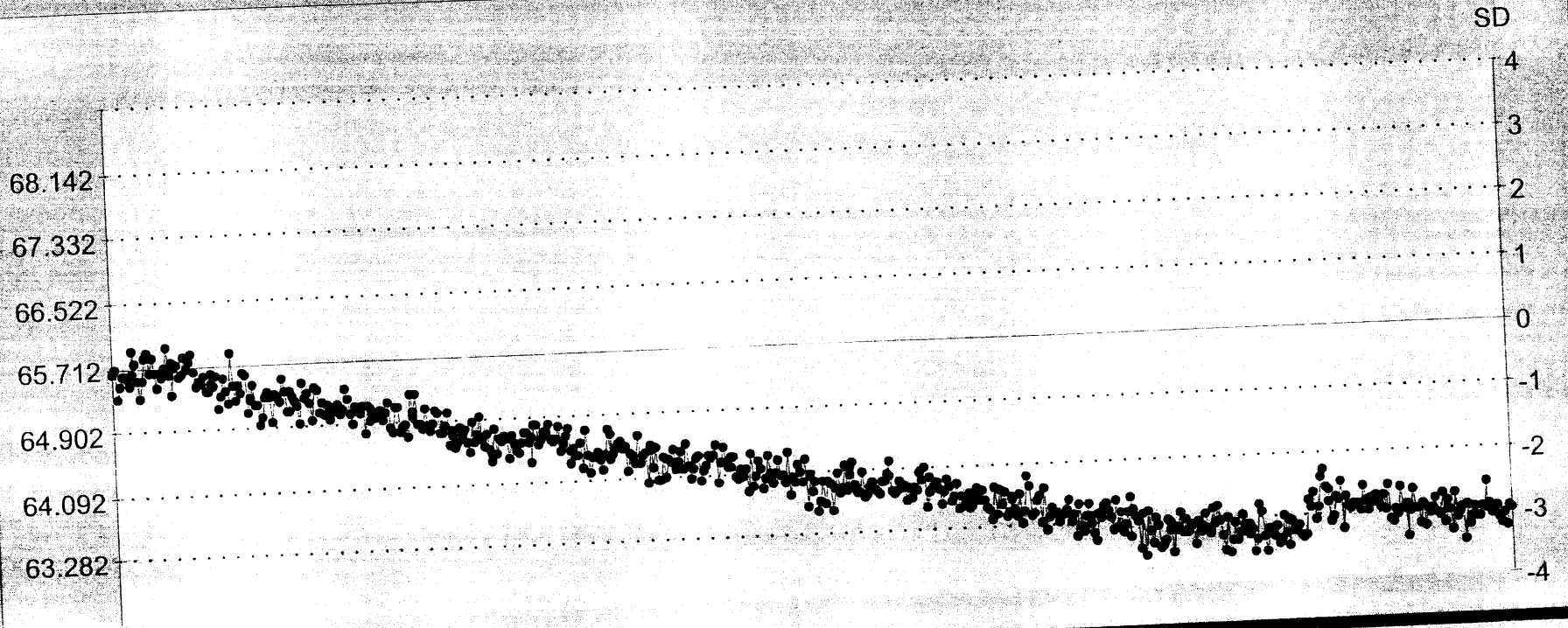


SD

SIT Dev

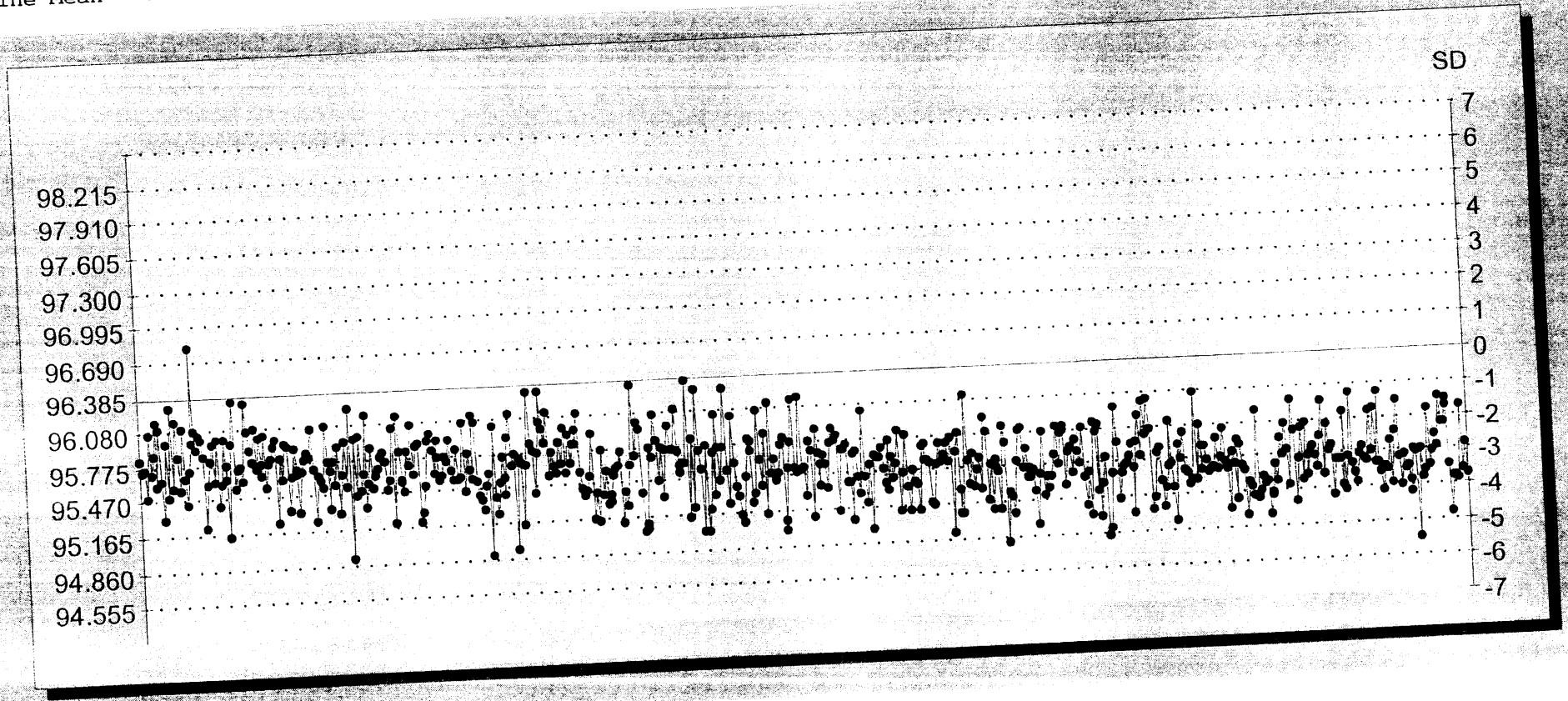
SH Efficiency Baseline Oct 08, 2002 - Present

Total # pts : 600  
Valid # pts : 600  
Mean : 64.12  
Baseline SD : 0.81  
Baseline Mean : 65.71



4C Efficiency Baseline Sep 17, 2002 - Present

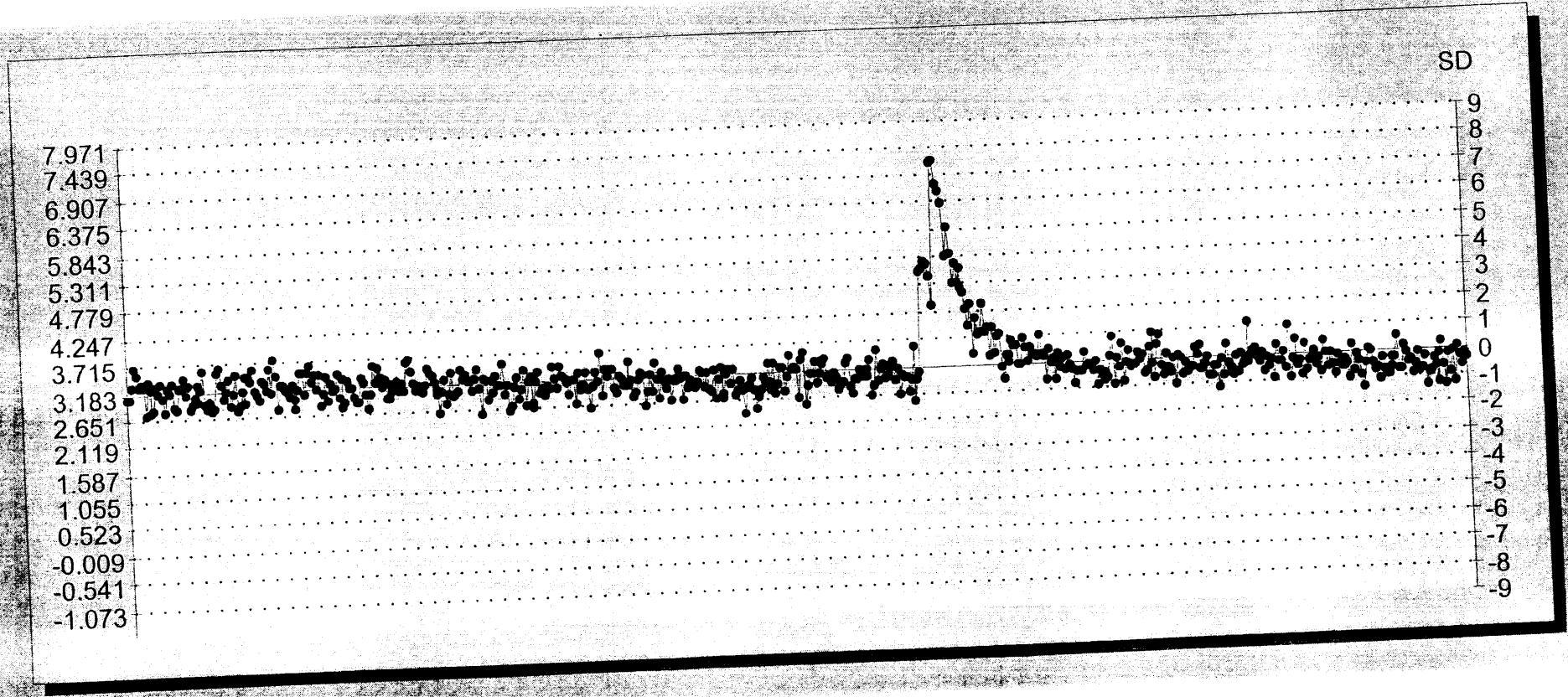
Total # pts : 603  
 Valid # pts : 603  
 Mean : 95.57  
 Baseline SD : 0.30  
 Baseline Mean : 96.38



STC Denver

1/23/04 1:28:37 PM

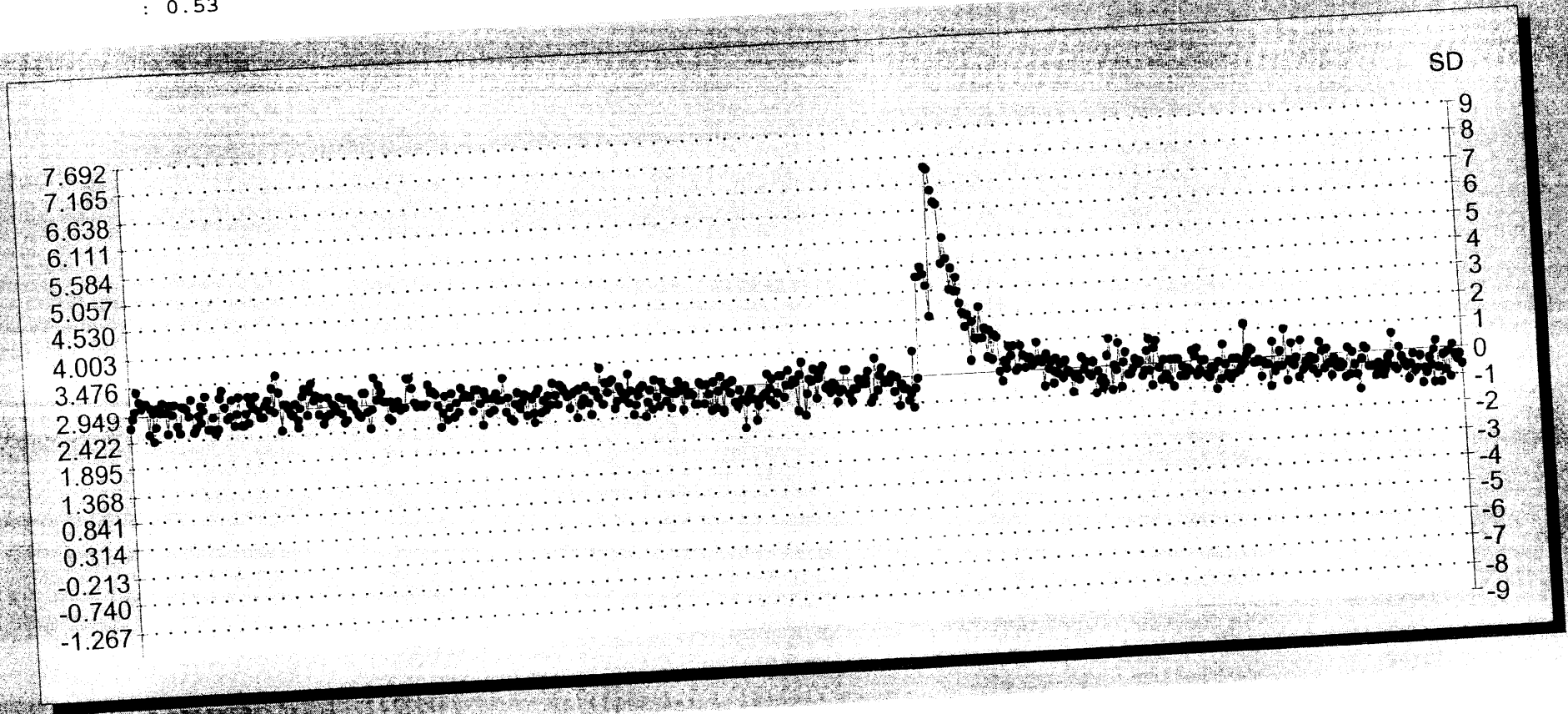
Denmark  
4C background  
Total # pts : 596  
Valid # pts : 596  
Mean : 3.18  
SD : 0.53





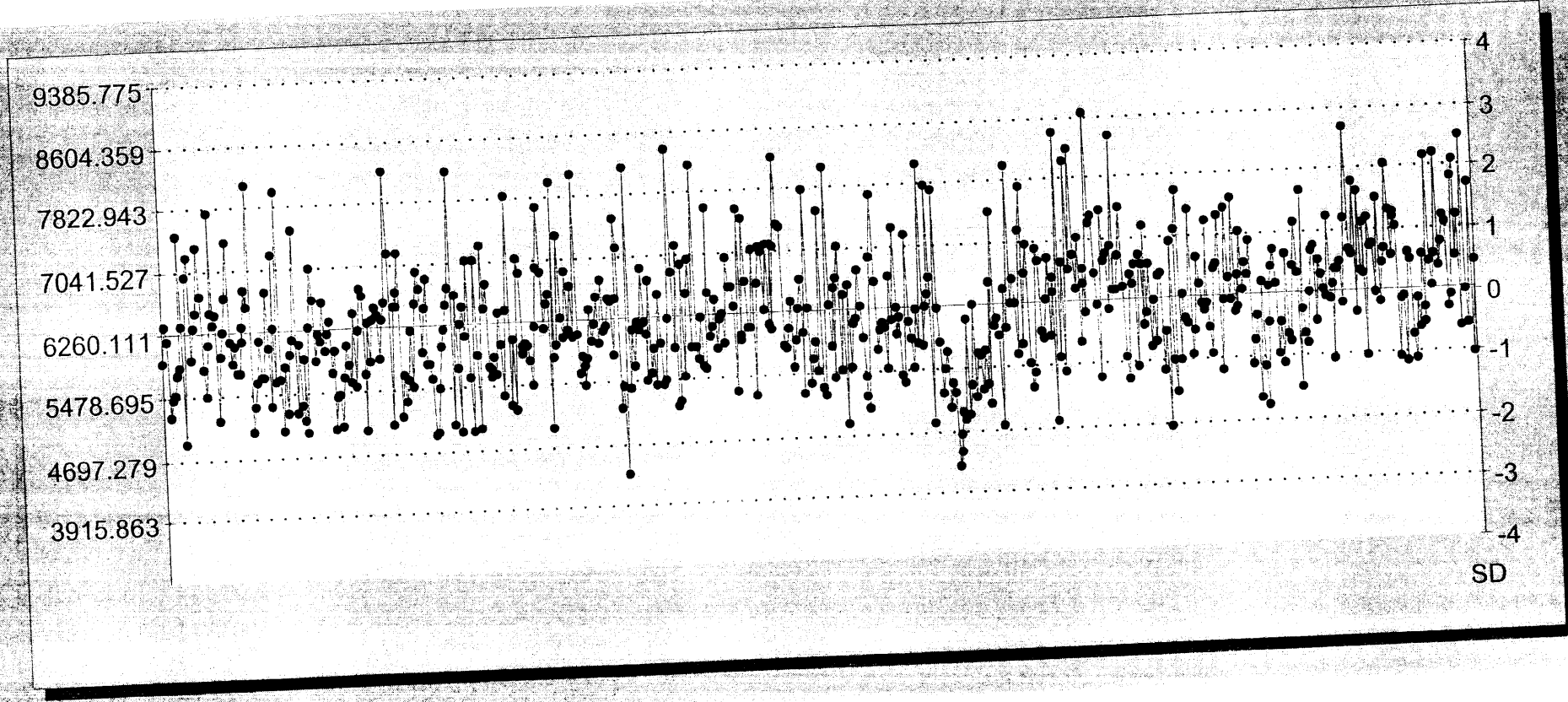
23/04 1:28:37 PM

Background : 596  
 Total # pts : 596  
 Valid # pts : 2.95  
 Mean : 0.53  
 SD : 0.53



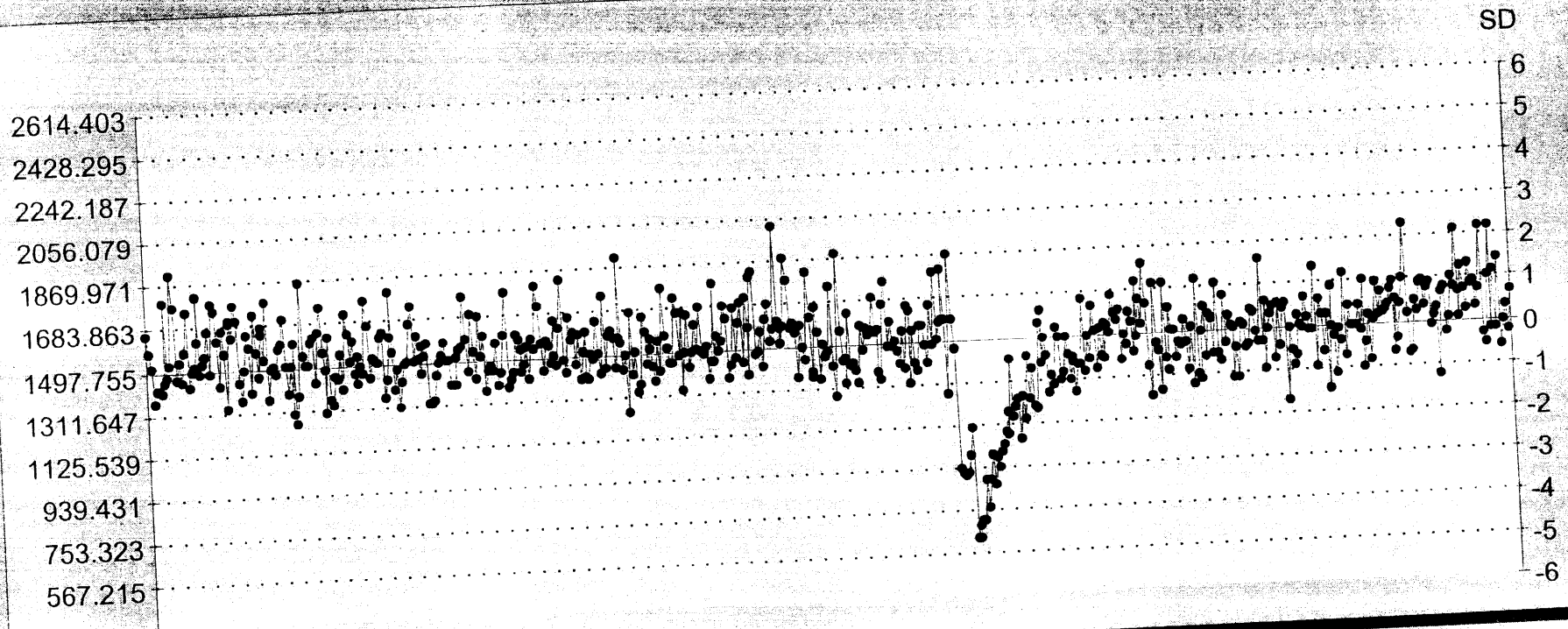
1/23/04 1:28:37 PM

4C  $\sigma^2/B$   
 Total # pts : 595  
 Valid # pts : 595  
 Mean : 6260.11  
 SD : 781.42  
 $\sigma^2/B$  Threshold : 380

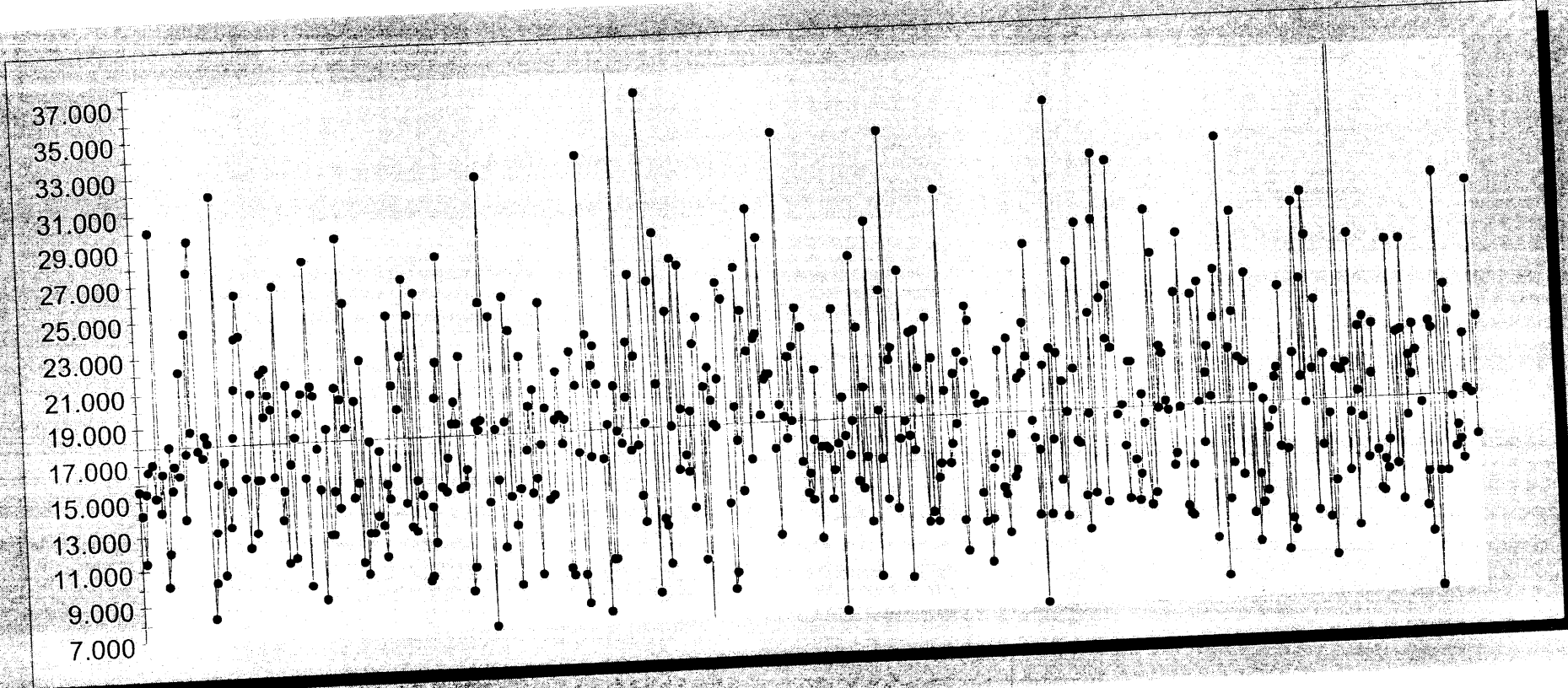


1/23/04 1:28:37 PM

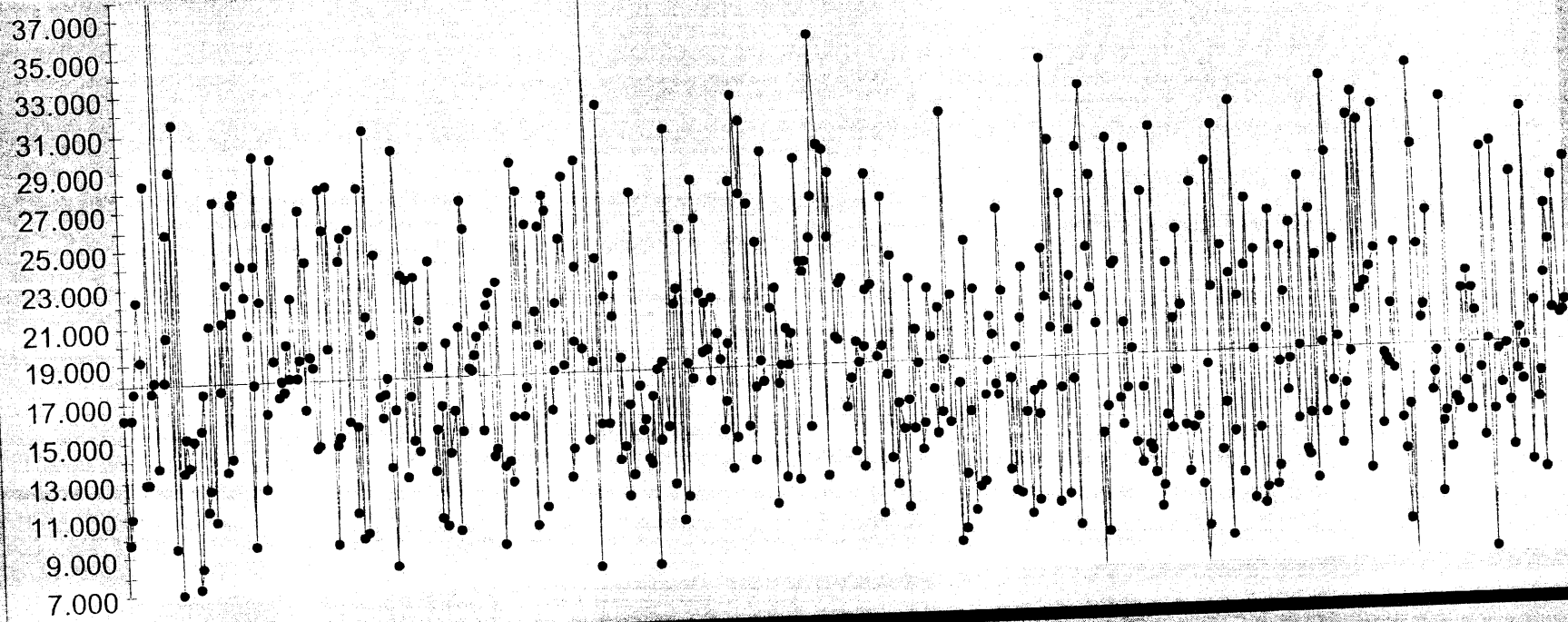
STL Denver  
H E2/B  
Total # pts : 595  
Valid # pts : 595  
Mean : 1497.76  
SD : 186.11  
E2/B Threshold : 180



4C Chi Square  
ota # pts : 511  
alid # pts : 511  
ean : 18.17  
D : 5.67



Delta Square  
Total # pts : 510  
Valid # pts : 510  
Mean : 18.72  
SD : 6.17



D4E210325

CLIENT ANALYSIS SUMMARY

Storage Loc: 167 SF SUB

Project Manager: SHD

Quote #: 57122 SDG:

Date Received: 2004-05-21

Project: USDA National Disease Center

Analytical Due Date: 2004-06-10

PO#: JOB#: 03-3040.17 Report to: Carl Young

Report Due Date: 2004-06-14

Client: 1352382 Cabrera Services

#SMPS in LOT: 11

Report Type: D Expanded Deliverable

EDD Code: 00

LOG IN: Rad to be subbed to STL St. Louis attn GC/MS SVOC: execute mass chro search for all samples, for PPO and POPOP.

Table with 5 columns: SAMPLE #, CLIENT SAMPLE ID, DATE/TIME SAMPLED, WORKORDER, and !. Row 1: 1, 01-MW-06, 2004-05-19 / 1025, GGTEE, WATER. Includes sample comments for XX 3W, XX 4E, XX ZC, D XX 3W, and S XX 3W.

Table with 5 columns: SAMPLE #, CLIENT SAMPLE ID, DATE/TIME SAMPLED, WORKORDER, and !. Row 2: 2, 01-MW-12, 2004-05-19 / 1030, GGTE3, WATER. Includes sample comments for XX 3W, XX 4E, and XX ZC.

Table with 5 columns: SAMPLE #, CLIENT SAMPLE ID, DATE/TIME SAMPLED, WORKORDER, and !. Row 3: 3, 01-MW-04, 2004-05-19 / 1330, GGTE6, WATER. Includes sample comments for XX 3W, XX 4E, and XX ZC.

Table with 5 columns: SAMPLE #, CLIENT SAMPLE ID, DATE/TIME SAMPLED, WORKORDER, and !. Row 4: 4, 01-MW-07, 2004-05-19 / 1335, GGTE7, WATER. Includes sample comments for XX 3W, XX 4E, and XX ZC.

Table with 5 columns: SAMPLE #, CLIENT SAMPLE ID, DATE/TIME SAMPLED, WORKORDER, and !. Row 5: 5, 01-MW-02, 2004-05-19 / 1600, GGTFE, WATER. Includes sample comments for XX 3W, XX 4E, and XX ZC.

Table with 5 columns: SAMPLE #, CLIENT SAMPLE ID, DATE/TIME SAMPLED, WORKORDER, and !. Row 6: 6, 01-MW-03, 2004-05-19 / 1600, GGTFH, WATER. Includes sample comment for XX 3W.

D4E210325

CLIENT ANALYSIS SUMMARY

Storage Loc: 167 SF SUB

Project Manager: SHD

Quote #: 57122 SDG:

Date Received: 2004-05-21

Project: USDA National Disease Center

Analytical Due Date: 2004-06-10

PO#: JOB#: 03-3040.17 Report to: Carl Young

Report Due Date: 2004-06-14

Client: 1352382 Cabrera Services

#SMPS in LOT: 11

Report Type: D Expanded Deliverable

EDD Code: 00

LOG IN: Rad to be subbed to STL St. Louis attn GC/MS SVOC: execute mass chro search for all samples, for PPO and POPOP.

XX 4E	EERF	C-01-1	Carbon 14 by EERF C-01-1	G8	Distillation and Suspended in LSC Cocktail	01	STANDARD TEST SET	PROT: A	WRK LOC 06
XX ZC	EPA	906.0 MOD	TRITIUM (Distill) by EPA 906.0 MOD	G8	Distillation and Suspended in LSC Cocktail	01	STANDARD TEST SET	PROT: A	WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	WORKORDER	I
8	01-MW-11	2004-05-20 / 800	GGTFX	WATER

SAMPLE COMMENTS:

XX 3W	DOE	STL-RC-0055	Ni-59 & Ni-63 by Liquid Scint. Spec.	J3	Ion Exchange Resin preconcentration and	01	STANDARD TEST SET	PROT: A	WRK LOC 06
XX 4E	EERF	C-01-1	Carbon 14 by EERF C-01-1	G8	Distillation and Suspended in LSC Cocktail	01	STANDARD TEST SET	PROT: A	WRK LOC 06
XX ZC	EPA	906.0 MOD	TRITIUM (Distill) by EPA 906.0 MOD	G8	Distillation and Suspended in LSC Cocktail	01	STANDARD TEST SET	PROT: A	WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	WORKORDER	I
9	01-MW-10	2004-05-20 / 910	GGTF3	WATER

SAMPLE COMMENTS:

XX 3W	DOE	STL-RC-0055	Ni-59 & Ni-63 by Liquid Scint. Spec.	J3	Ion Exchange Resin preconcentration and	01	STANDARD TEST SET	PROT: A	WRK LOC 06
XX 4E	EERF	C-01-1	Carbon 14 by EERF C-01-1	G8	Distillation and Suspended in LSC Cocktail	01	STANDARD TEST SET	PROT: A	WRK LOC 06
XX ZC	EPA	906.0 MOD	TRITIUM (Distill) by EPA 906.0 MOD	G8	Distillation and Suspended in LSC Cocktail	01	STANDARD TEST SET	PROT: A	WRK LOC 06

SAMPLE #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	WORKORDER	A
10	01-SC-01	2004-05-20 / 930	GGTF4	SOLID

SAMPLE COMMENTS:

XX 1L	EML	H3-04-RC MOD	Tritium by LSC by DOE H3-04-RC MOD.	G8	Distillation and Suspended in LSC Cocktail	01	STANDARD TEST SET	PROT: B	WRK LOC 06
XX 3W	DOE	STL-RC-0055	Ni-59 & Ni-63 by Liquid Scint. Spec.	J3	Ion Exchange Resin preconcentration and	01	STANDARD TEST SET	PROT: B	WRK LOC 06
XX 4E	EERF	C-01-1	Carbon 14 by EERF C-01-1	G8	Distillation and Suspended in LSC Cocktail	01	STANDARD TEST SET	PROT: B	WRK LOC 06

Severn Trent Laboratories, Inc  
 SAMPLE ANALYSIS REQUISITION

LABORATORY: STL St Louis  
 13715 Rider Trail North  
 Earth City MO 63045-1205,

NEED ANALYTICAL REPORT BY  
 6/09/04

ATTN:

LAB PURCHASE ORDER: SR059478

CLIENT CODE: 1352382 PROJECT MANAGER: Susan H. Decker

NUMBER OF SAMPLES IN LOT: 0000

<u>SAMPLE I.D.</u>	<u>SAMPLING DATE</u>	<u>ANALYSIS REQUIRED</u>
D4E210325-001 GGTEE-1-AD	5/19/04	Ni-59 & Ni-63 by Liquid Scint. Spec (NI59/63L) METHOD: STL-RC-0055
D4E210325-001 GGTEE-1-AE	5/19/04	Carbon 14 by EERF C-01-1 (RC14DS_L) METHOD: C-01-1
D4E210325-001 GGTEE-1-AF	5/19/04	TRITIUM (Distill) by EPA 906.0 MOD (RH3DS_L ) METHOD: 906.0 MOD
D4E210325-001-D GGTEE-1-AK	5/19/04	Ni-59 & Ni-63 by Liquid Scint. Spec. (NI59/63L) METHOD: STL-RC-0055
D4E210325-001-S GGTEE-1-AJ	5/19/04	Ni-59 & Ni-63 by Liquid Scint. Spec. (NI59/63L) METHOD: STL-RC-0055
D4E210325-002 GGTE3-1-AD	5/19/04	Ni-59 & Ni-63 by Liquid Scint. Spec. (NI59/63L) METHOD: STL-RC-0055
D4E210325-002 GGTE3-1-AE	5/19/04	Carbon 14 by EERF C-01-1 (RC14DS_L) METHOD: C-01-1
D4E210325-002 GGTE3-1-AF	5/19/04	TRITIUM (Distill) by EPA 906.0 MOD (RH3DS_L ) METHOD: 906.0 MOD
D4E210325-003 GGTE6-1-AD	5/19/04	Ni-59 & Ni-63 by Liquid Scint. Spec. (NI59/63L) METHOD: STL-RC-0055
D4E210325-003 GGTE6-1-AE	5/19/04	Carbon 14 by EERF C-01-1 (RC14DS_L) METHOD: C-01-1

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 \* CONTINUED \*  
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Severn Trent Laboratories, Inc  
 SAMPLE ANALYSIS REQUISITION

LABORATORY: STL St Louis  
 13715 Rider Trail North  
 Earth City MO 63045-1205,

NEED ANALYTICAL REPORT BY  
 6/09/04  
 ROUTINE

ATTN:

LAB PURCHASE ORDER: SR059478

CLIENT CODE: 1352382 PROJECT MANAGER: Susan H. Decker

NUMBER OF SAMPLES IN LOT: 0000

<u>SAMPLE I.D.</u>	<u>SAMPLING DATE</u>	<u>ANALYSIS REQUIRED</u>
D4E210325-003 GGTE6-1-AF	8 5/19/04	TRITIUM (Distill) by EPA 906.0 MOD (RH3DS_L ) METHOD: 906.0 MOD
D4E210325-004 GGTE7-1-AD	1 5/19/04	Ni-59 & Ni-63 by Liquid Scint. Spec. (NI59/63L) METHOD: STL-RC-0055
D4E210325-004 GGTE7-1-AE	8 5/19/04	Carbon 14 by EERF C-01-1 (RC14DS_L) METHOD: C-01-1
D4E210325-004 GGTE7-1-AF	7 5/19/04	TRITIUM (Distill) by EPA 906.0 MOD (RH3DS_L ) METHOD: 906.0 MOD
D4E210325-005 GGTFE-1-AD	1 5/19/04	Ni-59 & Ni-63 by Liquid Scint. Spec. (NI59/63L) METHOD: STL-RC-0055
D4E210325-005 GGTFE-1-AE	7 5/19/04	Carbon 14 by EERF C-01-1 (RC14DS_L) METHOD: C-01-1
D4E210325-005 GGTFE-1-AF	7 5/19/04	TRITIUM (Distill) by EPA 906.0 MOD (RH3DS_L ) METHOD: 906.0 MOD
D4E210325-006 GGTFH-1-AD	2 5/19/04	Ni-59 & Ni-63 by Liquid Scint. Spec. (NI59/63L) METHOD: STL-RC-0055
D4E210325-006 GGTFH-1-AE	5 5/19/04	Carbon 14 by EERF C-01-1 (RC14DS_L) METHOD: C-01-1
D4E210325-006 GGTFH-1-AF	5 5/19/04	TRITIUM (Distill) by EPA 906.0 MOD (RH3DS_L ) METHOD: 906.0 MOD

\*\*\*\*\*  
 \* CONTINUED \*  
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Severn Trent Laboratories, Inc  
 SAMPLE ANALYSIS REQUISITION

LABORATORY: STL St Louis  
 13715 Rider Trail North  
 Earth City MO 63045-1205,

NEED ANALYTICAL REPORT BY  
 6/09/04  
**ROUTINE**

ATTN:

LAB PURCHASE ORDER: SR059478

CLIENT CODE: 1352382 PROJECT MANAGER: Susan H. Decker

NUMBER OF SAMPLES IN LOT: 0000

<u>SAMPLE I.D.</u>	<u>SAMPLING DATE</u>	<u>ANALYSIS REQUIRED</u>
D4E210325-008 GGTFX-1-AD	3 5/20/04	Ni-59 & Ni-63 by Liquid Scint. Spec. (NI59/63L) METHOD: STL-RC-0055 <i>SCOOP</i>
D4E210325-008 GGTFX-1-AE	5/20/04	Carbon 14 by EERF C-01-1 (RC14DS_L) METHOD: C-01-1
D4E210325-008 GGTFX-1-AF	5 5/20/04	TRITIUM (Distill) by EPA 906.0 MOD (RH3DS_L ) METHOD: 906.0 MOD <i>LG</i>
D4E210325-009 GGTF3-1-AD	4 5/20/04	Ni-59 & Ni-63 by Liquid Scint. Spec. (NI59/63L) METHOD: STL-RC-0055 <i>SCOOP</i>
D4E210325-009 GGTF3-1-AE	5/20/04	Carbon 14 by EERF C-01-1 (RC14DS_L) METHOD: C-01-1
D4E210325-009 GGTF3-1-AF	7 5/20/04	TRITIUM (Distill) by EPA 906.0 MOD (RH3DS_L ) METHOD: 906.0 MOD <i>LG</i>
D4E210325-010 GGTF4-1-AA	2,3 5/20/04	Tritium by LSC by DOE H3-04-RC MOD. (RH3DI_S ) METHOD: H3-04-RC MOD <i>120G, 250G</i>
D4E210325-010 GGTF4-1-AF	5/20/04	Ni-59 & Ni-63 by Liquid Scint. Spec. (NI59/63S) METHOD: STL-RC-0055
D4E210325-010 GGTF4-1-AG	5/20/04	Carbon 14 by EERF C-01-1 (RC14DS_S) METHOD: C-01-1

-----  
NEED DETECTION LIMIT AND ANALYSIS DATE INCLUDED IN REPORT.

SHIPPING METHOD: FEDEX

DATE: 5/21/04

SEND REPORT TO: SUSAN DECKER

SAMPLE RECEIVED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

PLEASE SEND A SIGNED COPY OF THIS FORM WITH REPORT AT COMPLETION OF ANALYSIS.

THANK YOU.

STL Denver

INT: \_\_\_\_\_

5/21/04 15:12:00

STL St Louis  
13715 Rider Trail North  
Earth City

MO 63045-1205,

RELINQUISHED BY: *Susan Binnell*

DATE/TIME: 5/21/04 1515

RELINQUISHED BY: \_\_\_\_\_

DATE/TIME: \_\_\_\_\_

RECEIVED FOR LAB BY: *Matt Wen*

DATE/TIME: 5/22/04 0800

PLEASE RETURN ORIGINAL SAMPLE ANALYSIS REQUISITION

Lot No: D/E 210 325

**Condition Upon Receipt Form  
St. Louis Laboratory**

Client: L Denver  
Quote No: \_\_\_\_\_  
Shipper/No: \_\_\_\_\_

Date: 5/22/04 Time: 0800  
Initiated by: MW  
COC/RFA Numbers: N/A

Condition/Variance (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample received in undamaged condition?	7.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample received with Chain of Custody?
2.	<input type="radio"/> Y <input checked="" type="radio"/> N	Sample received within 4C ± 2C*?	8.	<input checked="" type="radio"/> Y <input type="radio"/> N	Chain of Custody matches sample IDs on containers?
		Record <u>all ambient</u>	9.	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Custody seal received intact on cooler.?
3.	<input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Sample received with proper pH ' ?	10.	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Custody seal tamper evident on cooler.?
4.	<input checked="" type="radio"/> Y <input type="radio"/> N	If N/A - Was pH taken by original STL lab?	11.	<input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Custody seal on bottles received intact?
5.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample received in proper containers?	12.	<input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Custody seal tamper evident on bottles?
6.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample volume sufficient for analysis?	13.	<input type="radio"/> Y <input checked="" type="radio"/> N	Was CUR (equivalent) rec' d from original STL lab?

\* Temperature Variance Does Not Affect the Following Analyses: \_\_\_\_\_

For DOE-AL (Pantex, LANL, Sandia) sites, verify pH all containers received, except for VOA, TOX, and soils.

Notes: Fed Ex 6212 6726 3170  
" " 3169  
" " 3158

**Corrective Action:**

- Client's Name: \_\_\_\_\_ Informed by: \_\_\_\_\_ By: \_\_\_\_\_
- Sample(s) processed "as is". \_\_\_\_\_
- Sample(s) on hold until: \_\_\_\_\_ If released, notify: \_\_\_\_\_

Project Management Review: A D S Herbel Date: 5/24/04

**THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED  
IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR  
INITIALS AND THE DATE NEXT TO THAT ITEM**

# General Chemistry

Supporting Documentation

Sample Sequence, Instrument Printouts, Calculations

**SEVERN**  
**TRENT**

# STL

Batch: 4162230 / 231

Method: % moist 06/09/04

*I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.*

Signature/Date: *Neil Moe*

**GENERAL CHEMISTRY  
SAMPLE DATA**

**SEVERN  
TRENT**

**STL**

# STL DENVER PERCENT WATER

PAGE 1 OF 5

SOP: DEN-WC-0023		ANALYST: DEANN	DATE: 9-Jun-04
IN: DATE	TIME: 9-Jun-04	14:45	TEMP: 104 C(104+/-1C)
OUT: DATE	TIME: 10-Jun-04	11:10	TEMP: 104 C(104+/-1C)

DISH	WORK ORDER	LOT NUMBER	CLIENT ID NUMBER	SAMPLE MASS WET	SAMPLE MASS DRY	(%) % SOLID	(%) % WATER
1	GHMQL	D4F040270-1	SOLID	15.51	14.25	91.88	8.12
2	GHMQR	270-2	SOLID	16.35	15.01	91.80	8.20
3	GHMQR	270-2X	SOLID	16.02	14.83	92.57	7.43
4	GGTF4	D4E210325-10	SOLID	16.42	13.63	83.01	16.99
5	GG44E	D4E260281-3	SOLID	15.89	15.34	96.54	3.46
6	GG44K	281-4	SOLID	16.72	16.21	96.95	3.05
7	GG44M	281-5	SOLID	14.52	13.67	94.15	5.85
8	GG444W	281-6	SOLID	15.04	12.80	85.11	14.89
9	GG442	281-7	SOLID	15.91	10.39	65.30	34.70
10	GG446	281-8	SOLID	15.95	15.64	98.06	1.94
11	GG0KT	D4E240216-3	SOLID	14.92	14.58	97.72	2.28
12	GGOKV	216-4	SOLID	15.56	14.99	96.34	3.66
13	GGOKW	216-5	SOLID	15.97	15.37	96.24	3.76
14	GGOKX	216-6	SOLID	16.26	15.86	97.54	2.46
15	GHRJ9	D4F070238-7	SOLID	15.46	14.49	93.73	6.27
16	GHRKF	D4F070239-1	SOLID	15.03	13.14	87.43	12.57
17	GHRKF	239-1X	SOLID	14.89	13.08	87.84	12.16
18			SOLID			#DIV/0!	#DIV/0!
19			SOLID			#DIV/0!	#DIV/0!
20			SOLID			#DIV/0!	#DIV/0!
21			SOLID			#DIV/0!	#DIV/0!

COMMENTS:	-9.8247209 % RPD
BATCH:	F2 % RPD
RUN:	
REVIEWED BY:	DATE:

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4162231