Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269L01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 18:09 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:35 2003
Print Time : Thu May 01 11:35 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4943

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.08	9.03	0.005	96	70	760.366	10.00		0.05	
47	47 Cl-benzene-d5, I2	12.72	12.66	0.005	82	119	211.140	10.00		0.06	
62	62 1,4-DCB-d4 150 15	15.23	15.15	0.005	152	150	183.003	10.00		0.07	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.49	7.44	0.003	111	113	518.428	19.24	19.2	96.22%	
29	29 1,2-di-Cl-ethane-	8.06	8.02	0.003	65	102	218.761	17.41	17.4	87.07%	
55	55 toluene-d8(S2)	11.21	11.15	0.004	100	99	765.373	20.15	20.2	100.76%	
70	70 4-Br-1-F-Bz (S3)	13.96	13.90	0.004	174	95	332.480	20.33	20.3	101.67%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	383.100	17.63	17.6	99	
4	4 Chloromethane	2.78	2.78	0.000	50	52	292.753	15.82	15.8	96	
9	9 F114 85 135	2.83	2.83	0.000	85	135	484.444	19.95	20.0	97	
5	5 vinyl chloride	2.96	2.96	0.000	62	64	318.677	18.16	18.2	97	
6	6 bromomethane	3.38	3.37	0.001	94	96	289.007	18.74	18.7	99	
7	7 Chloroethane	3.53	3.52	0.002	64	66	251.941	19.39	19.4	98	
8	8 tri-Cl-F-methane	4.18	4.14	0.004	101	103	621.777	20.96	21.0	99	?
111	111 isopropyl alcoho	4.29	4.27	0.002	45	43	61.593	179.53	179.5	56	#
100	100 ethyl ether x5	4.47	4.44	0.004	59	74	911.831	84.14	84.1	98	
102	102 Acrolein x10	4.18	4.15	0.003	56	55	180.850	209.16	209.2	95	?
119	119 methyl acetate	5.10	5.06	0.005	43	74	200.521	21.50	21.5	95	?
104	104 Carbon disulfide	5.22	5.18	0.004	76	78	960.634	15.16	15.2	99	
103	103 Acrylonitrilex10	4.91	4.89	0.003	53	52	323.435	178.02	178.0	100	
95	95 Acetone x10	4.34	4.31	0.004	43	58	228.722	174.91	174.9	96	
108	108 F-113	5.06	5.02	0.004	151	101	512.767	22.50	22.5	99	
13	13 11-dichloroethene	4.79	4.76	0.004	61	96	558.505	18.74	18.7	98	
101	101 Acetonnitrilex10	4.22	4.20	0.003	41	40	86.265	177.07	177.1	96	#
109	109 Iodomethane	4.83	4.80	0.003	142	127	569.024	23.67	23.7	98	
113	113 Tert butyl alcoh	4.88	4.86	0.002	59	57	132.404	201.56	201.6	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269L01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 18:09 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:35 2003
Print Time : Thu May 01 11:36 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4944

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	5.00	4.97	0.004	84	49	575.899	19.19	19.2	96	
	112 Allyl chloride	5.10	5.07	0.004	41	76	618.233	18.75	18.7	93	?
200	200 Nitro methane x1	5.85	5.82	0.004	61	46	649.609	195.82	195.8	98	?
10	10 t-Bu-Me-ether	6.03	6.00	0.004	73	57	610.777	18.97	19.0	98	
19	19 t-12-di-Cl-ethene	5.85	5.82	0.004	96	61	434.441	19.01	19.0	96	?
98	98 Vinyl acetate x5	6.45	6.41	0.004	43	86	1703.772	82.85	82.9	99	
21	21 11-dichloroethane	6.19	6.15	0.004	63	83	810.889	20.32	20.3	99	
91	91 2-butanone MEKx10	6.87	6.83	0.004	43	72	1197.008	167.86	167.9	97	?
115	115 Di isoprop ether	6.89	6.85	0.004	45	87	1858.495	18.45	18.5	98	?
22	22 c-12-di-Cl-ethene	7.02	6.97	0.005	96	61	417.889	18.69	18.7	100	
23	23 22-Dichloropropan	7.40	7.35	0.005	77	97	679.257	19.73	19.7	99	
24	24 Br-Cl-methane	7.24	7.18	0.006	128	130	141.841	17.68	17.7	99	
25	25 chloroform	7.31	7.27	0.004	83	85	731.109	18.31	18.3	100	
201	201 Ethyl acetate x2	7.36	7.31	0.005	43	61	357.480	35.16	35.2	97	?
116	116 ETBE	7.45	7.40	0.005	59	87	1080.021	17.60	17.6	99	
117	117 Iso-butyl alcoho	7.36	7.31	0.005	43	42	388.200	190.83	190.8	73	#?
26	26 tetrahydrofuranx5	7.75	7.71	0.005	72	42	67.594	86.75	86.7	97	
34	34 111-tri-Cl-ethane	8.27	8.23	0.004	97	99	637.647	19.17	19.2	100	
30	30 12-dichloroethane	8.18	8.13	0.005	62	64	274.618	17.65	17.7	99	
35	35 11-Di-Cl-propene	8.52	8.48	0.005	75	110	562.608	19.36	19.4	99	
36	36 benzene	8.79	8.75	0.005	78	52	1326.604	20.08	20.1	99	
37	37 CCl4	8.73	8.68	0.005	117	119	523.785	20.58	20.6	100	
97	97 thiophene	8.94	8.89	0.005	84	58	620.752	18.90	18.9	96	
118	118 TAME	9.05	9.00	0.005	73	43	756.627	17.91	17.9	95	
39	39 12-di-Cl-propane	9.54	9.49	0.005	63	76	365.865	18.92	18.9	98	
40	40 trichloroethene	9.59	9.54	0.005	130	132	405.826	19.82	19.8	99	
96	96 Me-methacrylate	9.89	9.85	0.004	69	100	123.368	18.37	18.4	97	
42	42 Br-di-Cl-methane	9.65	9.61	0.004	83	85	474.566	17.60	17.6	98	
41	41 dibromomethane	9.49	9.45	0.004	174	172	183.214	19.64	19.6	99	
45	45 c-13-di-Cl-propen	10.42	10.37	0.006	75	110	432.009	18.17	18.2	100	
92	92 2-ClEt-Vi-ether10	10.18	10.15	0.004	63	43	302.903	74.28	74.3	98	
56	56 toluene	11.28	11.23	0.006	91	92	1222.138	19.68	19.7	100	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269L01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 18:09 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:35 2003
Print Time : Thu May 01 11:36 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4945

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.41	11.36	0.006	69	99	228.934	17.82	17.8	99	
93	93 2-Hexanone x5	11.54	11.48	0.007	43	58	378.055	87.53	87.5	99	
48	48 112-tri-Cl-Et	11.09	11.03	0.007	97	83	170.332	18.73	18.7	95	
58	58 1,2-di-br-ethane	11.88	11.82	0.007	107	109	180.169	18.52	18.5	96	
51	51 di-Br-Cl-methane	11.62	11.57	0.006	129	127	236.052	19.28	19.3	99	
46	46 t-13-di-cl-propen	10.92	10.87	0.006	75	110	293.929	19.18	19.2	99	
105	105 1-Chlorohexane	12.69	12.64	0.006	55	93	404.758	21.47	21.5	98	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.57	10.52	0.004	43	58	136.432	20.56	20.6	97	
49	49 1,3-di-cl-propane	11.34	11.29	0.004	76	78	290.382	21.04	21.0	99	
59	59 tetra-Cl-ethene	12.06	12.00	0.004	166	168	429.899	23.14	23.1	100	
60	60 chlorobenzene	12.76	12.70	0.004	112	77	687.288	22.27	22.3	99	
61	61 1112-tetra-Cl-Et	12.68	12.62	0.004	131	133	277.514	22.46	22.5	99	?
64	64 ethylbenzene	12.95	12.90	0.004	91	106	1357.792	22.84	22.8	100	
65	65 m/p-Xylenes x2	13.16	13.10	0.005	91	106	2047.539	45.30	45.3	99	
99	99 1-4-di-Cl-butane	13.51	13.46	0.004	55	41	265.975	19.53	19.5	98	?
52	52 bromoform	13.27	13.22	0.004	173	175	133.209	21.27	21.3	96	
66	66 styrene	13.49	13.43	0.005	104	78	714.123	22.37	22.4	98	?
67	67 o-xylene	13.56	13.50	0.005	91	106	978.072	21.99	22.0	99	?
68	68 1122-Tetra-Cl-Et	13.57	13.51	0.005	83	85	160.767	19.69	19.7	98	?
110	110 t-1,4-dichloro-2	13.72	13.67	0.004	89	53	31.577	24.88	24.9	72	#?
106	106 Cl-benzyl	15.19	15.12	0.005	91	126	236.942	23.36	23.4	99	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.69	13.64	0.003	110	97	42.651	19.14	19.1	92	?
71	71 isopropylbenzene	13.92	13.86	0.004	105	120	1374.707	22.86	22.9	100	
72	72 bromobenzene	14.15	14.10	0.003	156	158	279.305	21.16	21.2	97	
73	73 n-propylbenzene	14.34	14.29	0.004	120	78	368.669	22.74	22.7	98	
74	74 2-Cl-Tl 126 1	14.44	14.37	0.004	126	128	215.744	20.03	20.0	99	
75	75 4-Cl-Tl 126 1	14.51	14.45	0.004	126	128	314.992	21.40	21.4	94	m
76	76 135-tri-Me-Bz	14.62	14.57	0.004	105	120	1055.627	21.74	21.7	100	
79	79 tert-butylbenzene	14.89	14.84	0.004	119	91	1114.768	22.36	22.4	98	
78	78 124-tri-Me-Bz	15.01	14.94	0.004	105	120	906.226	21.95	22.0	100	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

4946

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269L01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 18:09 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:35 2003
Print Time : Thu May 01 11:36 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-di-Cl-Bz 146	15.19	15.11	0.005	146	148	438.952	20.87	20.9	90	?
82	82	14-di-Cl-Bz 146	15.24	15.19	0.004	146	148	589.866	19.30	19.3	94	m
81	81	sec-butylbenzene	15.11	15.04	0.004	105	134	1597.369	21.91	21.9	100	
77	77	4-iso-Pr-toluene	15.28	15.22	0.004	119	134	1169.490	22.24	22.2	100	
84	84	12-di-Cl-benzene	15.59	15.52	0.005	146	148	393.257	19.38	19.4	98	
85	85	n-butylbenzene	15.67	15.60	0.005	91	134	1160.225	21.05	21.1	100	
86	86	12-diBr-3-Cl-Pra	16.06	15.97	0.006	157	155	28.220	18.98	19.0	95	
87	87	124-tri-Cl-Bz	17.32	17.24	0.005	180	182	295.683	18.55	18.5	95	
88	88	naphthalene	17.56	17.49	0.005	128	129	219.618	18.04	18.0	100	
90	90	123-tri-Cl-Bz	17.75	17.68	0.004	180	182	229.553	20.76	20.8	100	
89	89	hx-Cl-butadiene	17.59	17.52	0.005	225	260	292.763	24.31	24.3	96	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

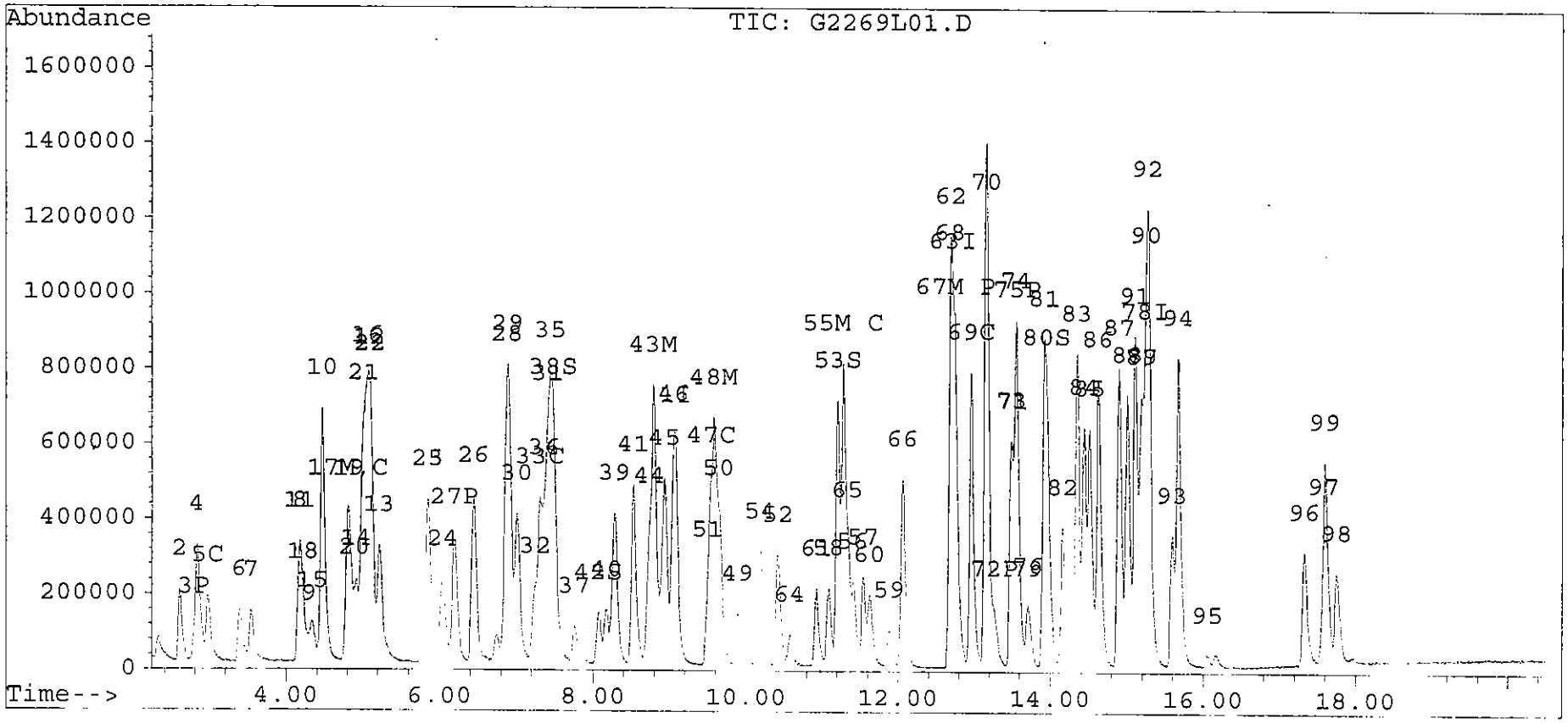
Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2269\G2269L01.D
Acq On : 30 Apr 03 6:09 pm
Sample : f=1
Misc :
Quant Time: May 1 11:35 2003

Vial: 11
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

4947

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



FORM-3A

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 524.2

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32964
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03G2269		
MS Filename:	G2269M01	Date Analyzed:	043003	Time Analyzed:	18:38
MSD Filename:	G2269N01	Date Analyzed:	043003	Time Analyzed:	19:08
MS Sample No:	**MW-17-2**	Sample Lab ID:	03-2933-3		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
BENZENE	µg/L	20	0	20.6	103	65-121
CHLOROBENZENE	µg/L	20	0	22.7	114	65-134
1,1-DICHLOROETHENE	µg/L	20	0	20.0	100	65-127
TOLUENE	µg/L	20	0	20.2	101	65-134
TRICHLOROETHENE	µg/L	20	0.9	20.5	98	65-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
BENZENE	µg/L	20	20.6	103	0	28	65-121
CHLOROBENZENE	µg/L	20	22.4	112	2	35	65-134
1,1-DICHLOROETHENE	µg/L	20	19.4	97	3	31	65-127
TOLUENE	µg/L	20	20.0	100	1	35	65-134
TRICHLOROETHENE	µg/L	20	20.9	100	2	30	65-125
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269M01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 18:38 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:44 2003
Print Time : Thu May 01 11:44 2003
Miscleneous :

Sample : f=1 $2933-03
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4949

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards									Dev(Min)		
1	1 Fluorobenzene I1	9.07	9.03	0.004	96	70	774.675	10.00		0.04	
47	47 Cl-benzene-d5, I2	12.72	12.66	0.005	82	119	217.575	10.00		0.06	
62	62 1,4-DCB-d4 150 15	15.24	15.15	0.005	152	150	187.626	10.00		0.08	
System Monitoring Compounds (Surrogate)									%Recovery		
27	27 Di-Br-F-Methane (	7.48	7.44	0.003	111	113	528.190	19.24	19.2	96.22%	
29	29 1,2-di-Cl-ethane-	8.06	8.02	0.003	65	102	215.931	16.87	16.9	84.35%	
55	55 toluene-d8(S2)	11.21	11.15	0.004	100	99	808.687	20.90	20.9	104.49%	
70	70 4-Br-1-F-Bz (S3)	13.96	13.90	0.004	174	95	344.365	20.54	20.5	102.71%	
Target Compounds									Qvalue		
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	415.115	18.79	18.8	98	
4	4 Chloromethane	2.78	2.78	0.000	50	52	305.857	16.23	16.2	97	
9	9 F114 85 135	2.83	2.83	0.000	85	135	534.423	21.60	21.6	94	
5	5 vinyl chloride	2.97	2.96	0.001	62	64	340.242	19.03	19.0	98	
6	6 bromomethane	3.39	3.37	0.002	94	96	314.373	20.05	20.1	96	
7	7 Chloroethane	3.54	3.52	0.003	64	66	264.625	19.99	20.0	99	
8	8 tri-Cl-F-methane	4.18	4.14	0.004	101	103	680.412	22.51	22.5	99	?
111	111 isopropyl alcoho	4.29	4.27	0.002	45	43	47.972	137.24	137.2	1	#
100	100 ethyl ether x5	4.47	4.44	0.004	59	74	887.068	80.34	80.3	98	
102	102 Acrolein x10	4.19	4.15	0.005	56	55	222.501	252.58	252.6	89	?
119	119 methyl acetate	5.10	5.06	0.005	43	74	253.506	26.61	26.6	100	?
104	104 Carbon disulfide	5.22	5.18	0.005	76	78	1039.627	16.10	16.1	100	
103	103 Acrylonitrilex10	4.93	4.89	0.005	53	52	261.166	141.09	141.1	96	
95	95 Acetone x10	4.34	4.31	0.004	43	58	290.029	221.19	221.2	98	
108	108 F-113	5.06	5.02	0.005	151	101	577.916	24.89	24.9	100	
13	13 11-dichloroethene	4.79	4.76	0.004	61	96	606.139	19.96	20.0	99	
101	101 Acetonnitrilex10	4.23	4.20	0.004	41	40	73.046	146.82	146.8	92	
109	109 Iodomethane	4.83	4.80	0.004	142	127	564.643	23.01	23.0	99	
113	113 Tert butyl alcoh	4.89	4.86	0.003	59	57	119.163	177.84	177.8	94	#

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269M01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 18:38 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:44 2003
Print Time : Thu May 01 11:45 2003
Miscleneous :

Sample : f=1 $2933-03
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4950

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	5.00	4.97	0.004	84	49	583.386	19.07	19.1	95	
	112 Allyl chloride	5.11	5.07	0.005	41	76	656.151	19.53	19.5	95	?
200	200 Nitro methane x1	5.85	5.82	0.004	61	46	667.219	197.41	197.4	100	?
10	10 t-Bu-Me-ether	6.04	6.00	0.005	73	57	600.945	18.32	18.3	98	
19	19 t-12-di-Cl-ethene	5.85	5.82	0.004	96	61	459.535	19.74	19.7	100	?
98	98 Vinyl acetate x5	6.45	6.41	0.004	43	86	802.799	38.32	38.3	97	
21	21 11-dichloroethane	6.20	6.15	0.005	63	83	836.385	20.57	20.6	98	
91	91 2-butanone MEKx10	6.88	6.83	0.005	43	72	1192.427	164.13	164.1	98	?
115	115 Di isoprop ether	6.90	6.85	0.005	45	87	1881.344	18.33	18.3	98	?
22	22 c-12-di-Cl-ethene	7.01	6.97	0.004	96	61	436.960	19.18	19.2	98	
23	23 22-Dichloropropan	7.39	7.35	0.004	77	97	711.931	20.29	20.3	98	
24	24 Br-Cl-methane	7.24	7.18	0.006	128	130	146.177	17.88	17.9	97	
25	25 chloroform	7.31	7.27	0.004	83	85	752.402	18.50	18.5	100	
201	201 Ethyl acetate x2	7.35	7.31	0.004	43	61	216.135	20.87	20.9	75	#?
116	116 ETBE	7.45	7.40	0.005	59	87	1079.348	17.27	17.3	100	
117	117 Iso-butyl alcoho	7.35	7.31	0.004	43	42	226.183	109.13	109.1	1	#?
26	26 tetrahydrofuranx5	7.76	7.71	0.005	72	42	64.364	81.07	81.1	95	
34	34 111-tri-Cl-ethane	8.27	8.23	0.004	97	99	670.454	19.79	19.8	99	
30	30 12-dichloroethane	8.18	8.13	0.005	62	64	282.037	17.79	17.8	99	
35	35 11-Di-Cl-propene	8.53	8.48	0.006	75	110	601.335	20.31	20.3	98	
36	36 benzene	8.80	8.75	0.005	78	52	1383.046	20.55	20.5	99	
37	37 CCl4	8.74	8.68	0.006	117	119	563.351	21.72	21.7	99	
97	97 thiophene	8.95	8.89	0.006	84	58	633.601	18.93	18.9	96	
118	118 TAME	9.05	9.00	0.005	73	43	732.507	17.02	17.0	96	
39	39 12-di-Cl-propane	9.54	9.49	0.005	63	76	383.147	19.45	19.4	97	
40	40 trichloroethene	9.59	9.54	0.005	130	132	428.177	20.53	20.5	100	
96	96 Me-methacrylate	9.89	9.85	0.004	69	100	119.429	17.49	17.5	100	
42	42 Br-di-Cl-methane	9.65	9.61	0.004	83	85	477.062	17.37	17.4	96	
41	41 dibromomethane	9.50	9.45	0.005	174	172	177.451	18.68	18.7	99	
45	45 c-13-di-Cl-propen	10.41	10.37	0.005	75	110	438.612	18.11	18.1	98	
92	92 2-ClEt-Vi-ether10	10.19	10.15	0.005	63	43	290.585	69.94	69.9	98	
56	56 toluene	11.28	11.23	0.006	91	92	1276.090	20.17	20.2	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269M01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 18:38 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:44 2003
Print Time : Thu May 01 11:45 2003
Miscleneous :

Sample : f=1 $2933-03
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4951

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.41	11.36	0.006	69	99	130.777	9.99	10.0	98	
93	93 2-Hexanone x5	11.53	11.48	0.006	43	58	337.629	76.73	76.7	96	
48	48 112-tri-Cl-Et	11.08	11.03	0.006	97	83	165.941	17.90	17.9	94	
58	58 1,2-di-br-ethane	11.88	11.82	0.007	107	109	172.190	17.38	17.4	98	
51	51 di-Br-Cl-methane	11.63	11.57	0.007	129	127	232.721	18.66	18.7	100	
46	46 t-13-di-cl-propen	10.91	10.87	0.005	75	110	287.212	18.40	18.4	99	
105	105 1-Chlorohexane	12.69	12.64	0.006	55	93	439.123	22.94	22.9	99	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.59	10.52	0.006	43	58	126.942	18.51	18.5	98	
49	49 1,3-di-cl-propane	11.34	11.29	0.004	76	78	294.443	20.70	20.7	99	
59	59 tetra-Cl-ethene	12.06	12.00	0.004	166	168	463.358	24.20	24.2	97	
60	60 chlorobenzene	12.76	12.70	0.004	112	77	722.029	22.71	22.7	98	
61	61 1112-tetra-Cl-Et	12.68	12.62	0.005	131	133	280.221	22.01	22.0	99	?
64	64 ethylbenzene	12.95	12.90	0.004	91	106	1418.776	23.16	23.2	99	
65	65 m/p-Xylenes x2	13.16	13.10	0.005	91	106	2156.122	46.29	46.3	98	
99	99 1-4-di-Cl-butane	13.52	13.46	0.005	55	41	259.306	18.48	18.5	98	
52	52 bromoform	13.28	13.22	0.005	173	175	133.503	20.66	20.7	99	
66	66 styrene	13.49	13.43	0.005	104	78	747.037	22.71	22.7	99	
67	67 o-xylene	13.56	13.50	0.005	91	106	1015.279	22.15	22.2	99	?
68	68 1122-Tetra-Cl-Et	13.57	13.51	0.005	83	85	164.797	19.58	19.6	96	?
110	110 t-1,4-dichloro-2	13.73	13.67	0.005	89	53	32.323	24.68	24.7	69	#
106	106 Cl-benzyl	15.19	15.12	0.005	91	126	262.898	25.28	25.3	97	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.69	13.64	0.003	110	97	40.952	17.93	17.9	93	
71	71 isopropylbenzene	13.92	13.86	0.004	105	120	1447.451	23.48	23.5	100	
72	72 bromobenzene	14.16	14.10	0.004	156	158	293.025	21.65	21.7	98	
73	73 n-propylbenzene	14.35	14.29	0.004	120	78	392.745	23.63	23.6	98	
74	74 2-Cl-Tl 126 1	14.45	14.37	0.005	126	128	236.513	21.42	21.4	94	
75	75 4-Cl-Tl 126 1	14.52	14.45	0.005	126	128	331.889	21.99	22.0	99	m 5/1/03
76	76 135-tri-Me-Bz	14.63	14.57	0.004	105	120	1108.916	22.27	22.3	98	
79	79 tert-butylbenzene	14.90	14.84	0.004	119	91	1187.444	23.23	23.2	99	
78	78 124-tri-Me-Bz	15.01	14.94	0.005	105	120	901.551	21.30	21.3	98	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269M01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 18:38 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:44 2003
Print Time : Thu May 01 11:45 2003
Miscleneous :

Sample : f=1 $2933-03
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4952

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-di-Cl-Bz 146	15.19	15.11	0.005	146	148	425.408	19.73	19.7	90	?
82	82	14-di-Cl-Bz 146	15.25	15.19	0.004	146	148	658.249	21.01	21.0	94	m
81	81	sec-butylbenzene	15.12	15.04	0.005	105	134	1786.653	23.91	23.9	99	
77	77	4-iso-Pr-toluene	15.29	15.22	0.004	119	134	1253.502	23.25	23.2	99	
84	84	12-di-Cl-benzene	15.60	15.52	0.005	146	148	413.326	19.87	19.9	97	
85	85	n-butylbenzene	15.67	15.60	0.005	91	134	1289.015	22.81	22.8	99	
86	86	12-diBr-3-Cl-Pra	16.06	15.97	0.005	157	155	29.283	19.21	19.2	99	
87	87	124-tri-Cl-Bz	17.32	17.24	0.005	180	182	317.616	19.40	19.4	97	
88	88	naphthalene	17.55	17.49	0.004	128	129	219.459	17.59	17.6	99	
90	90	123-tri-Cl-Bz	17.75	17.68	0.004	180	182	236.766	20.88	20.9	100	
89	89	hx-Cl-butadiene	17.59	17.52	0.005	225	260	334.033	27.08	27.1	95	

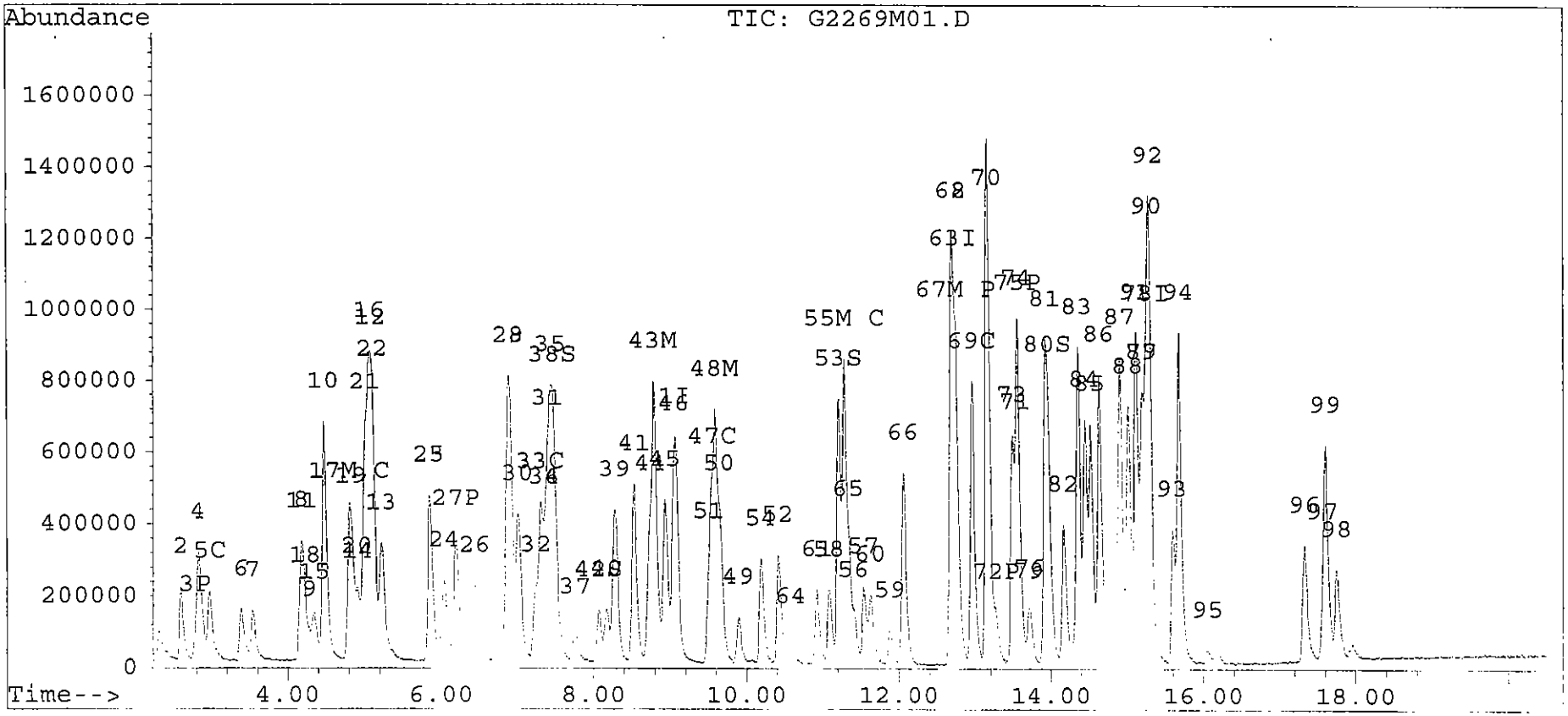
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2269\G2269M01.D Vial: 12
Acq On : 30 Apr 03 6:38 pm Operator: Eddie
Sample : f=1 $2933-03 Inst : GCMS-G
Misc : Multiplr: 1.00
Quant Time: May 1 11:44 2003 Quant Results File: quant.res

4953

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269N01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 19:08 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:46 2003
Print Time : Thu May 01 11:47 2003
Miscleneous :

Sample : f=1 $2933-03
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4954

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards									Dev(Min)		
1	1 Fluorobenzene I1	9.08	9.03	0.005	96	70	799.033	10.00	0.05		
47	47 Cl-benzene-d5, I2	12.73	12.66	0.005	82	119	232.426	10.00	0.06		
62	62 1,4-DCB-d4 150 15	15.24	15.15	0.005	152	150	196.889	10.00	0.08		
System Monitoring Compounds (Surrogate)									%Recovery		
27	27 Di-Br-F-Methane (	7.49	7.44	0.003	111	113	557.316	19.69	19.7	98.46%	
29	29 1,2-di-Cl-ethane-	8.07	8.02	0.003	65	102	221.284	16.76	16.8	83.81%	
55	55 toluene-d8(S2)	11.21	11.15	0.003	100	99	830.407	20.81	20.8	104.03%	
70	70 4-Br-1-F-Bz (S3)	13.97	13.90	0.005	174	95	362.036	20.58	20.6	102.90%	
Target Compounds									Qvalue		
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	431.107	18.93	18.9	100	
4	4 Chloromethane	2.78	2.78	0.000	50	52	326.254	16.78	16.8	96	
9	9 F114 85 135	2.83	2.83	0.000	85	135	542.850	21.28	21.3	99	
5	5 vinyl chloride	2.97	2.96	0.000	62	64	342.420	18.57	18.6	99	
6	6 bromomethane	3.40	3.37	0.003	94	96	331.116	20.49	20.5	95	
7	7 Chloroethane	3.54	3.52	0.003	64	66	268.905	19.70	19.7	99	
8	8 tri-Cl-F-methane	4.19	4.14	0.005	101	103	693.600	22.25	22.2	99	?
111	111 isopropyl alcoho	4.31	4.27	0.004	45	43	55.114	152.87	152.9	77	#
100	100 ethyl ether x5	4.47	4.44	0.004	59	74	945.291	83.00	83.0	99	
102	102 Acrolein x10	4.20	4.15	0.005	56	55	189.433	208.49	208.5	94	?
119	119 methyl acetate	5.10	5.06	0.005	43	74	239.713	24.42	24.4	93	?
104	104 Carbon disulfide	5.22	5.18	0.004	76	78	1053.792	15.82	15.8	100	
103	103 Acrylonitrilex10	4.93	4.89	0.004	53	52	307.021	160.81	160.8	98	?
95	95 Acetone x10	4.34	4.31	0.004	43	58	237.913	172.99	173.0	98	
108	108 F-113	5.06	5.02	0.004	151	101	632.383	26.40	26.4	99	
13	13 11-dichloroethene	4.80	4.76	0.005	61	96	608.613	19.43	19.4	98	
101	101 Acetonnitrilex10	4.26	4.20	0.007	41	40	92.902	181.52	181.5	85	#
109	109 Iodomethane	4.84	4.80	0.004	142	127	587.471	23.23	23.2	98	
113	113 Tert butyl alcoh	4.90	4.86	0.004	59	57	126.386	182.92	182.9	96	?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269N01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 19:08 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:46 2003
Print Time : Thu May 01 11:47 2003
Miscleneous :

Sample : f=1 $2933-03
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4955

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	5.01	4.97	0.004	84	49	602.598	19.10	19.1	95	
	112 Allyl chloride	5.11	5.07	0.004	41	76	686.580	19.81	19.8	96	?
200	200 Nitro methane x1	5.86	5.82	0.005	61	46	712.079	204.26	204.3	99	?
10	10 t-Bu-Me-ether	6.04	6.00	0.005	73	57	616.032	18.21	18.2	98	
19	19 t-12-di-Cl-ethene	5.86	5.82	0.005	96	61	475.495	19.80	19.8	96	?
98	98 Vinyl acetate x5	6.45	6.41	0.005	43	86	1383.630	64.03	64.0	96	
21	21 11-dichloroethane	6.21	6.15	0.006	63	83	887.654	21.17	21.2	99	
91	91 2-butanone MEKx10	6.88	6.83	0.005	43	72	1239.483	165.40	165.4	98	?
115	115 Di isoprop ether	6.89	6.85	0.005	45	87	1959.678	18.51	18.5	97	?
22	22 c-12-di-Cl-ethene	7.01	6.97	0.005	96	61	444.345	18.91	18.9	99	
23	23 22-Dichloropropan	7.40	7.35	0.006	77	97	731.997	20.23	20.2	98	
24	24 Br-Cl-methane	7.25	7.18	0.007	128	130	147.335	17.48	17.5	98	
25	25 chloroform	7.32	7.27	0.005	83	85	772.781	18.42	18.4	100	
201	201 Ethyl acetate x2	7.36	7.31	0.006	43	61	327.044	30.61	30.6	98	?
116	116 ETBE	7.45	7.40	0.006	59	87	1143.313	17.73	17.7	99	
117	117 Iso-butyl alcoho	7.36	7.31	0.006	43	42	358.178	167.55	167.5	90	#?
26	26 tetrahydrofuranx5	7.77	7.71	0.007	72	42	64.183	78.38	78.4	90	
34	34 111-tri-Cl-ethane	8.29	8.23	0.006	97	99	707.538	20.25	20.2	99	
30	30 12-dichloroethane	8.18	8.13	0.006	62	64	291.468	17.83	17.8	98	
35	35 11-Di-Cl-propene	8.53	8.48	0.006	75	110	630.446	20.65	20.6	99	
36	36 benzene	8.80	8.75	0.006	78	52	1433.228	20.64	20.6	99	
37	37 CCl4	8.74	8.68	0.006	117	119	580.631	21.71	21.7	100	
97	97 thiophene	8.94	8.89	0.006	84	58	673.421	19.51	19.5	96	
118	118 TAME	9.05	9.00	0.005	73	43	764.544	17.22	17.2	97	
39	39 12-di-Cl-propane	9.54	9.49	0.006	63	76	402.987	19.83	19.8	97	
40	40 trichloroethene	9.59	9.54	0.006	130	132	449.209	20.88	20.9	100	
96	96 Me-methacrylate	9.89	9.85	0.005	69	100	132.657	18.78	18.8	98	
42	42 Br-di-Cl-methane	9.66	9.61	0.005	83	85	509.430	17.98	18.0	98	
41	41 dibromomethane	9.50	9.45	0.005	174	172	182.470	18.62	18.6	100	
45	45 c-13-di-Cl-propen	10.42	10.37	0.006	75	110	458.034	18.33	18.3	98	
92	92 2-ClEt-Vi-ether10	10.20	10.15	0.006	63	43	299.817	69.96	70.0	97	
56	56 toluene	11.29	11.23	0.007	91	92	1304.268	19.99	20.0	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269N01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 19:08 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:46 2003
Print Time : Thu May 01 11:47 2003
Miscleneous :

Sample : f=1 $2933-03
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4956

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.42	11.36	0.007	69	99	199.361	14.76	14.8	97	
93	93 2-Hexanone x5	11.55	11.48	0.007	43	58	370.568	81.64	81.6	93	
48	48 112-tri-Cl-Et	11.08	11.03	0.006	97	83	172.022	17.99	18.0	95	
58	58 1,2-di-br-ethane	11.89	11.82	0.008	107	109	178.705	17.49	17.5	100	
51	51 di-Br-Cl-methane	11.63	11.57	0.007	129	127	236.128	18.36	18.4	100	
46	46 t-13-di-cl-propen	10.93	10.87	0.007	75	110	302.557	18.79	18.8	100	
105	105 1-Chlorohexane	12.70	12.64	0.007	55	93	470.284	23.85	23.9	99	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.58	10.52	0.005	43	58	136.321	18.61	18.6	96	
49	49 1,3-di-cl-propane	11.35	11.29	0.005	76	78	295.029	19.42	19.4	99	
59	59 tetra-Cl-ethene	12.07	12.00	0.005	166	168	481.078	23.52	23.5	99	
60	60 chlorobenzene	12.76	12.70	0.004	112	77	760.654	22.39	22.4	98	
61	61 1112-tetra-Cl-Et	12.69	12.62	0.006	131	133	296.618	21.81	21.8	99	?
64	64 ethylbenzene	12.97	12.90	0.006	91	106	1456.436	22.25	22.3	99	
65	65 m/p-Xylenes x2	13.17	13.10	0.005	91	106	2218.648	44.59	44.6	98	
99	99 1-4-di-Cl-butane	13.52	13.46	0.005	55	41	268.410	17.90	17.9	98	?
52	52 bromoform	13.28	13.22	0.004	173	175	133.514	19.27	19.3	96	
66	66 styrene	13.50	13.43	0.005	104	78	757.360	21.56	21.6	99	?
67	67 o-xylene	13.56	13.50	0.005	91	106	1055.350	21.56	21.6	99	?
68	68 1122-Tetra-Cl-Et	13.57	13.51	0.005	83	85	167.760	18.66	18.7	99	?
110	110 t-1,4-dichloro-2	13.73	13.67	0.005	89	53	31.791	22.36	22.4	72	#?
106	106 Cl-benzyl	15.20	15.12	0.006	91	126	245.579	21.89	21.9	98	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.71	13.64	0.005	110	97	41.377	17.26	17.3	90	?
71	71 isopropylbenzene	13.93	13.86	0.005	105	120	1556.345	24.06	24.1	100	
72	72 bromobenzene	14.17	14.10	0.004	156	158	288.810	20.33	20.3	98	
73	73 n-propylbenzene	14.35	14.29	0.004	120	78	404.898	23.22	23.2	100	
74	74 2-Cl-Tl 126 1	14.45	14.37	0.005	126	128	236.570	20.42	20.4	93	
75	75 4-Cl-Tl 126 1	14.52	14.45	0.005	126	128	329.313	20.79	20.8	100	m
76	76 135-tri-Me-Bz	14.63	14.57	0.004	105	120	1197.414	22.92	22.9	99	
79	79 tert-butylbenzene	14.91	14.84	0.005	119	91	1246.176	23.24	23.2	100	
78	78 124-tri-Me-Bz	15.02	14.94	0.005	105	120	954.190	21.48	21.5	100	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

5/1/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269N01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 19:08 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:46 2003
Print Time : Thu May 01 11:47 2003
Miscleneous :

Sample : f=1 $2933-03
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4957

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-di-Cl-Bz 146	15.20	15.11	0.005	146	148	443.615	19.61	19.6	91	
82	82	14-di-Cl-Bz 146	15.26	15.19	0.005	146	148	689.114	20.96	21.0	93	
81	81	sec-butylbenzene	15.12	15.04	0.005	105	134	1798.695	22.94	22.9	100	
77	77	4-iso-Pr-toluene	15.29	15.22	0.005	119	134	1311.559	23.18	23.2	99	
84	84	12-di-Cl-benzene	15.61	15.52	0.006	146	148	425.827	19.51	19.5	97	
85	85	n-butylbenzene	15.68	15.60	0.005	91	134	1365.645	23.03	23.0	100	
86	86	12-diBr-3-Cl-Pra	16.05	15.97	0.005	157	155	29.519	18.45	18.5	97	
87	87	124-tri-Cl-Bz	17.33	17.24	0.006	180	182	330.279	19.23	19.2	97	
88	88	naphthalene	17.57	17.49	0.005	128	129	223.073	17.03	17.0	99	
90	90	123-tri-Cl-Bz	17.76	17.68	0.005	180	182	240.502	20.22	20.2	97	
89	89	hx-Cl-butadiene	17.60	17.52	0.005	225	260	345.375	26.68	26.7	97	

m 2

m 2

5/1/03

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

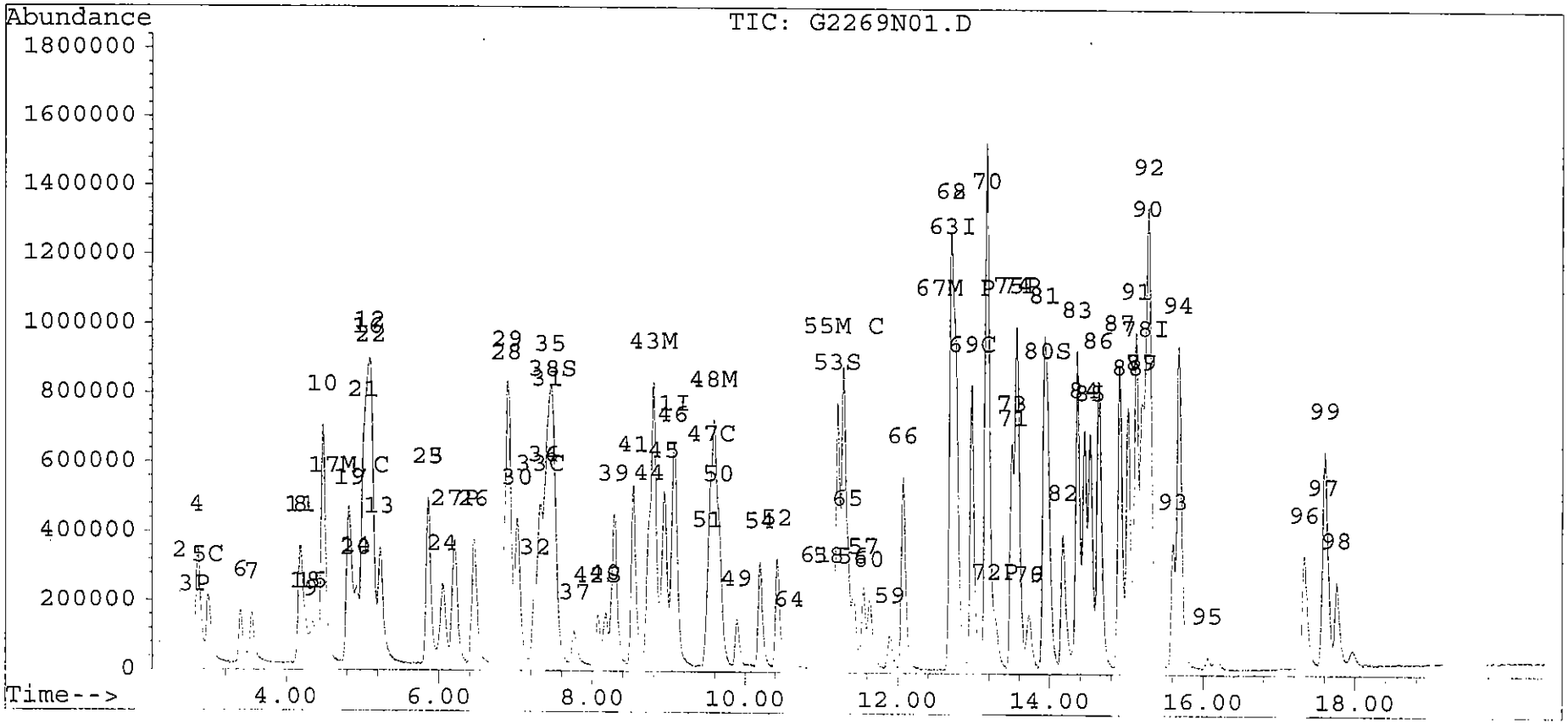
Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2269\G2269N01.D
Acq On : 30 Apr 03 7:08 pm
Sample : f=1 $2933-03
Misc :
Quant Time: May 1 11:46 2003

Vial: 13
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

4958

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\2933-03.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 22:28 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Apr 30 22:49 2003
Print Time : Thu May 01 11:49 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4959

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.12	9.03	0.010	96	70	791.241	10.00		0.09	
47	47 Cl-benzene-d5, I2	12.77	12.66	0.008	82	119	218.903	10.00		0.10	
62	62 1,4-DCB-d4 150 15	15.26	15.15	0.007	152	150	178.189	10.00		0.11	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.53	7.44	0.006	111	113	493.993	17.60	17.6	87.99%	
29	29 1,2-di-Cl-ethane-	8.12	8.02	0.006	65	102	228.093	17.45	17.4	87.24%	
55	55 toluene-d8(S2)	11.25	11.15	0.007	100	99	795.479	20.13	20.1	100.63%	
70	70 4-Br-1-F-Bz (S3)	13.99	13.90	0.006	174	95	322.931	20.28	20.3	101.42%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
111	111 isopropyl alcoho	4.26	4.27	0.000	45	43	2.725	7.63	7.6	1	#
119	119 methyl acetate	5.05	5.06	0.000	43	74	1.787	0.45	0.4	56	#
104	104 Carbon disulfide	5.26	5.18	0.008	76	78	23.344	0.35	0.4	84	#
91	91 2-butanone MEKx10	6.83	6.83	0.000	43	72	4.291	0.58	0.6	74	#
117	117 Iso-butyl alcoho	7.31	7.31	0.000	43	42	1.598	0.75	0.8	1	#
40	40 trichloroethene	9.65	9.54	0.012	130	132	18.520	0.87	0.9	89	
48	48 112-tri-Cl-Et	11.27	11.03	0.027	97	83	20.768	1.97	2.0	4	#?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.63	10.52	0.009	43	58	39.323	5.28	5.3	98	
49	49 1,3-di-cl-propane	11.27	11.29	-0.002	76	78	9.228	0.64	0.6	91	?

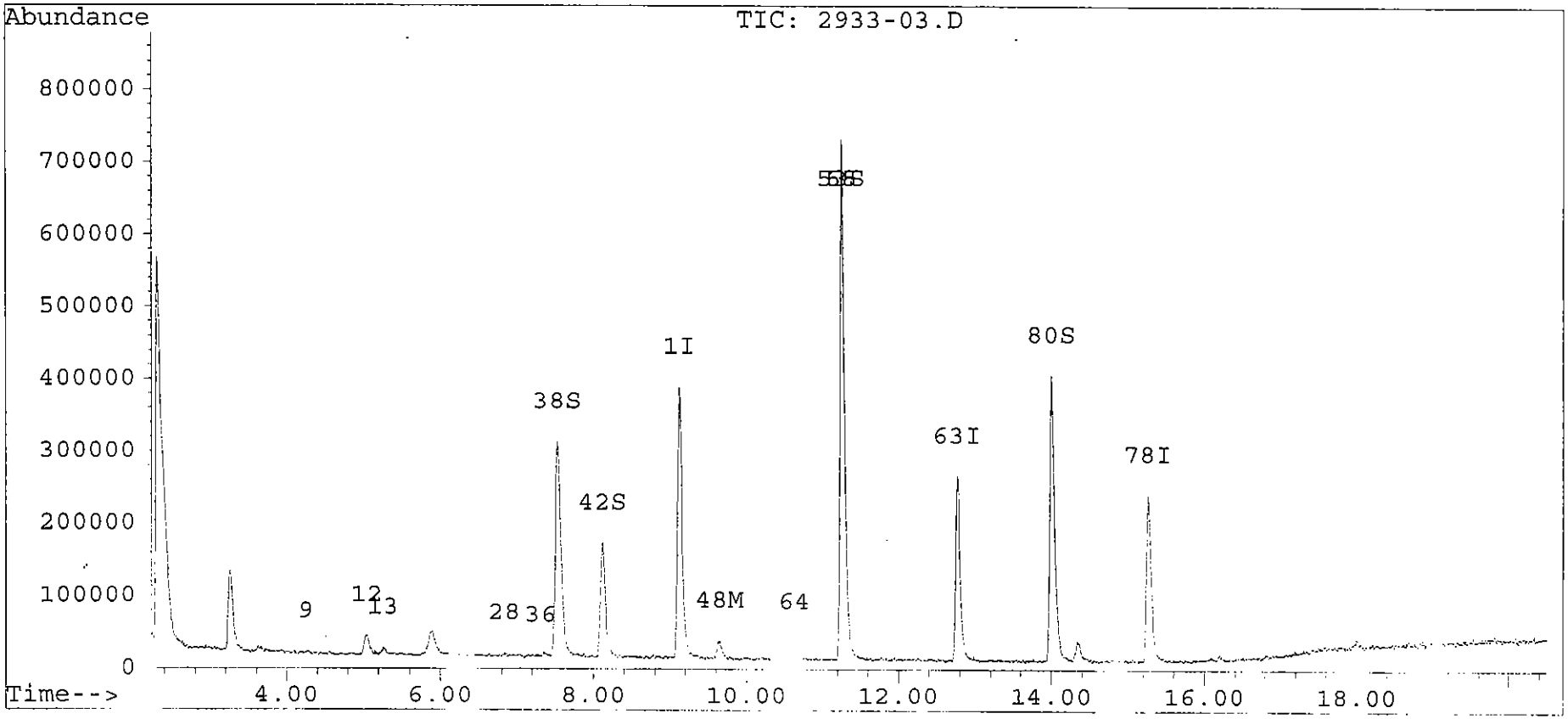
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

4960

Data File : C:\HPCHEM\1\DATA\03G2269\2933-03.D Vial: 29
Acq On : 30 Apr 03 10:28 pm Operator: Eddie
Sample : f=1 Inst : GCMS-G
Misc : Multiplr: 1.00
Quant Time: Apr 30 22:49 2003 Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



FORM-4A

Applied P & Ch Laboratory

Method Blank Summary for Method 524.2

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32964
Project ID:	JPL	Project No:	04-4428.10	Analysis Date:	04/30/03
		Sample Matrix:	Water	Analysis Time:	21:03
Sample ID:	**03G2269-MB-01**	Batch No:	03G2269	Instrument ID:	GC/MS: G
Lab Sample ID:	03G2269-MB-01	Data File Name:	G2269K02	GC Column:	DB-VEX
		Heated Purge: (Y/N)	N	Column ID:	0.45 mm

This Method Blank applies to the following samples and QC samples:

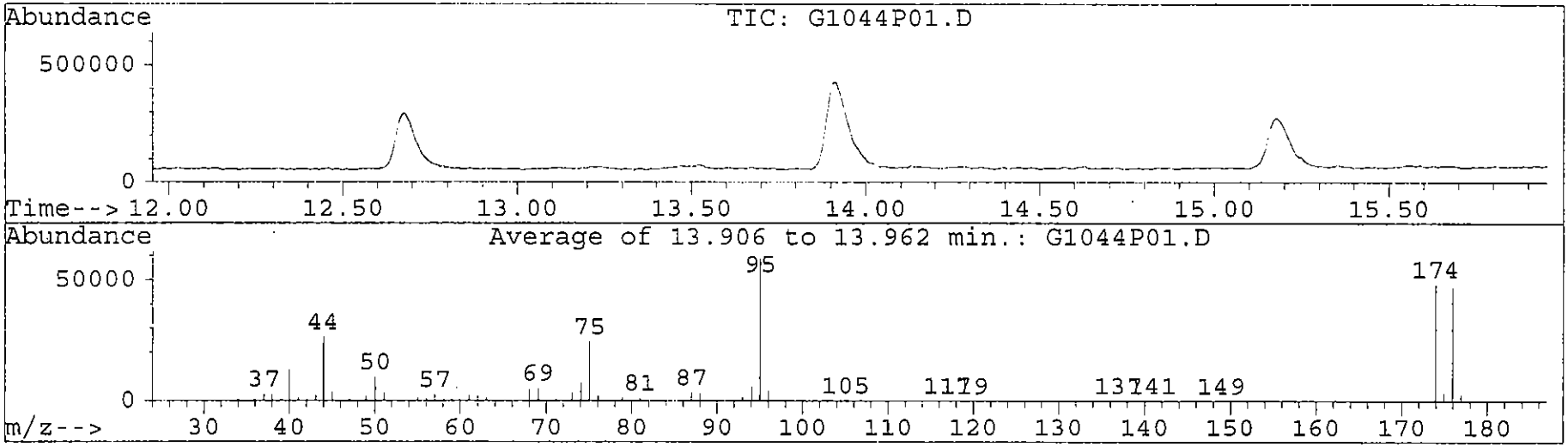
#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	03G2269-LCS-01	03G2269-LCS-01	Lab Control Spike	G2269L01	04/30/03	18:09
2	MW-17-2MS	03-2933-3MS	Matrix Spike	G2269M01	04/30/03	18:38
3	MW-17-2MSD	03-2933-3MSD	Matrix Spike Duplicate	G2269N01	04/30/03	19:08
4	DUPE-4-2Q03	03-2964-1	Field Sample	2964-01	05/01/03	00:53
5	EB-7-4/29/03	03-2964-2	Field Sample	2964-02	05/01/03	01:21
6	MW-24-1	03-2964-3	Field Sample	2964-03	05/01/03	01:50
7	MW-24-2	03-2964-4	Field Sample	2964-04	05/01/03	02:19
8	MW-24-3	03-2964-5	Field Sample	2964-05	05/01/03	02:48
9	MW-24-4	03-2964-6	Field Sample	2964-06	05/01/03	03:17
10	MW-24-5	03-2964-7	Field Sample	2964-07	05/01/03	03:46
11	TB-7-4/29/03	03-2964-8	Field Sample	2964-08	05/01/03	04:15
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

BFB

Data File : C:\HPCHEM\1\DATA\03G1044\G1044P01.D
Acq On : 10 Jan 03 1:51 pm
Sample : ##03g1044, w
Misc :

Vial: 16
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2



Peak Apex is scan: 1479

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.9	9968	PASS
75	95	30	60	41.9	24658	PASS
95	95	100	100	100.0	58860	PASS
96	95	5	9	7.2	4263	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	82.4	48487	PASS
175	174	5	9	7.2	3468	PASS
176	174	95	101	96.8	46953	PASS
177	176	5	9	6.3	2949	PASS

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name : APPLIED P & CH LAB Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 03-2964

Lab File ID: G1044 P01 BFB Injection Date: 01/10/2003

Instrument ID: GCMS-G BFB Injection Time: 1351

GC Column: VOCOL ID: 0.32 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.9
75	30.0 - 60.0% of mass 95	41.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	82.4
175	5.0 - 9.0% of mass 174	5.9 (7.2)1
176	95.0 - 101.0% of mass 174	79.8 (96.8)1
177	5.0 - 9.0% of mass 176	5.0 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD0003	003-A0003	003-A0003.D	01/10/03	1427
02	VSTD002	003-002	003-0002.D	01/10/03	1526
03	VSTD010	003-0010	003-0010.D	01/10/03	1555
04	VSTD020	003-0020	003-0020.D	01/10/03	1624
05	VSTD040	003-0040	003-0040.D	01/10/03	1654
06	VSTD080	003-0080	003-0080.D	01/10/03	1723
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

4964

Response Factor Report GCMS-G

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 09:57:17 2003
Response via : Initial Calibration

Calibration Files
0.3 =3-0003.D 2 =3-002.D 10 =3-010.D
20 =3-020.D 40 =3-040.D 80 =3-080.D

			Compound	0.3	2	10	20	40	80	Avg	%RSD	r2
1)	I	1	Fluorobenzene I1	----------ISTD----------								
2)		3	di-Cl-di-F-metha	0.401	0.288	0.312	0.289	0.285	0.276	0.308	15.17	1.000
3)	P	4	Chloromethane		0.201	0.216	0.253	0.278	0.269	0.243	13.88	
4)		9	F114 85 135	0.350	0.300	0.334	0.313	0.315	0.304	0.319	5.93	
5)	C	5	vinyl chloride	0.217	0.232	0.243	0.233	0.237	0.223	0.231	3.96	
6)		6	bromomethane	0.255	0.283	0.240	0.190	0.198	0.198	0.227	16.60	0.999
7)		7	Chloroethane	0.158	0.177	0.177	0.169	0.175	0.169	0.171	4.25	
8)		8	tri-Cl-F-methane	0.318	0.367	0.432	0.414	0.413	0.398	0.390	10.70	
9)		111	isopropyl alcoh		0.005	0.005	0.004	0.005	0.004	0.005#	12.57	
10)		100	ethyl ether x5	0.177	0.141	0.135	0.133	0.137	0.133	0.143	12.11	
11)		102	Acrolein x10		0.010	0.010	0.015	0.012	0.011	0.011#	17.19	
12)		119	methyl acetate	0.177	0.103	0.110	0.126		0.124	0.128	22.73	1.000
13)		104	Carbon disulfid	0.919	0.866	0.830	0.793	0.817	0.777	0.834	6.25	
14)		103	Acrylonitrilex1		0.024	0.024	0.024	0.024	0.024	0.024#	1.28	
15)		95	Acetone x10		0.027	0.017	0.018	0.016	0.016	0.019#	25.00	0.999
16)		108	F-113	0.232	0.267	0.343	0.325	0.321	0.311	0.300	13.95	
17)	M,C	13	11-dichloroethen	0.376	0.399	0.409	0.389	0.398	0.381	0.392	3.13	
18)		101	Acetonnitrilex1	0.009	0.001	0.007	0.007	0.007	0.006	0.006#	44.01	0.998
19)		109	Iodomethane	0.170	0.363	0.385	0.320	0.331	0.296	0.311	24.45	0.996
20)		113	Tert butyl alco		0.012	0.008	0.009	0.008	0.009	0.009#	17.38	0.999
21)		18	methylene chlori	1.220	0.724	0.498	0.407	0.365		0.643	54.62	0.993
22)		112	Allyl chloride	0.514	0.479	0.422	0.416	0.405	0.365	0.434	12.39	
23)		200	Nitro methane x	0.044	0.044	0.044	0.043	0.044	0.042	0.044#	1.92	
24)		10	t-Bu-Me-ether	0.842	0.479	0.398	0.418	0.420	0.429	0.498	34.33	1.000
25)		19	t-12-di-Cl-ethen	0.324	0.294	0.299	0.296	0.301	0.289	0.301	4.05	
26)		98	Vinyl acetate x5	0.312	0.304	0.286	0.157	0.315	0.248	0.270	22.48	
27)	P	21	11-dichloroethan	0.500	0.546	0.535	0.527	0.534	0.507	0.525	3.36	
28)		91	2-butanone MEKx1	0.104	0.095	0.090	0.088	0.094	0.092	0.094	6.20	

(#) = Out of Range

Response Factor Report GCMS-G

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 09:57:17 2003
Response via : Initial Calibration

Calibration Files
0.3 =3-0003.D 2 =3-002.D 10 =3-010.D
20 =3-020.D 40 =3-040.D 80 =3-080.D

		Compound	0.3	2	10	20	40	80	Avg	%RSD
29)		115 Di isoprop ethe	0.108	1.340	1.315	1.320	1.351	1.317	1.125	44.32
30)		22 c-12-di-Cl-ethen	0.299	0.300	0.291	0.291	0.297	0.287	0.294	1.83
31)		23 22-Dichloropropa	0.573	0.467	0.437	0.419	0.418	0.403	0.453	13.83
32)		24 Br-Cl-methane	0.042	0.099	0.104	0.104	0.108	0.105	0.094	27.43
33)	C	25 chloroform	0.648	0.531	0.493	0.488	0.504	0.487	0.525	11.86
34)		201 Ethyl acetate x		0.144	0.137	0.100	0.151	0.136	0.134	14.75
35)		116 ETBE	0.910	0.810	0.787	0.780	0.785	0.769	0.807	6.50
36)		117 Iso-butyl alcoh	0.024	0.029	0.029	0.020	0.031	0.027	0.027#	14.60
37)		26 tetrahydrofuranx		0.011	0.010	0.010	0.010	0.010	0.010#	4.18
38)	S	27 Di-Br-F-Methane	0.604	0.385	0.352	0.350	0.360	0.349	0.400	25.18
39)		34 111-tri-Cl-ethan	0.542	0.428	0.418	0.409	0.414	0.413	0.437	11.85
40)		30 12-dichloroethan	0.024	0.205	0.204	0.201	0.208	0.205	0.175	42.30
41)		35 11-Di-Cl-propene	0.413	0.378	0.379	0.371	0.378	0.373	0.382	4.04
42)	S	29 1,2-di-Cl-ethane		0.173	0.165	0.164	0.165	0.159	0.165	3.14
43)	M	36 benzene	0.854	0.901	0.876	0.863	0.883	0.837	0.869	2.63
44)		37 CCl4	0.341	0.311	0.354	0.334	0.340	0.329	0.335	4.32
45)		97 thiophene	0.441	0.456	0.429	0.421	0.430	0.415	0.432	3.39
46)		118 TAME		0.635	0.539	0.536	0.527	0.541	0.556	8.06
47)	C	39 12-di-Cl-propane	0.255	0.253	0.252	0.254	0.257	0.253	0.254	0.66
48)	M	40 trichloroethene	0.253	0.267	0.275	0.273	0.279	0.269	0.269	3.39
49)		96 Me-methacrylate		0.128	0.086	0.083	0.087	0.092	0.095	19.43
50)		42 Br-di-Cl-methane	0.441	0.364	0.340	0.327	0.331	0.324	0.355	12.65
51)		41 dibromomethane	0.100	0.117	0.128	0.132	0.133	0.127	0.123	10.29
52)		45 c-13-di-Cl-prope	0.341	0.316	0.303	0.301	0.309	0.307	0.313	4.71
53)	S	55 toluene-d8(S2)		0.509	0.500	0.491	0.504	0.493	0.500	1.57
54)		92 2-ClEt-Vi-ether1	0.045	0.052	0.054	0.055	0.057	0.057	0.054	8.68
55)	M C	56 toluene	0.926	0.820	0.796	0.777	0.794	0.786	0.817	6.80
56)		107 Et methacrylate		0.232	0.176	0.112	0.178	0.147	0.169	26.25
57)		93 2-Hexanone x5		0.062	0.058	0.050	0.058	0.057	0.057	7.78

(#) = Out of Range

Response Factor Report GCMS-G

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 09:57:17 2003
Response via : Initial Calibration

Calibration Files
0.3 =3-0003.D 2 =3-002.D 10 =3-010.D
20 =3-020.D 40 =3-040.D 80 =3-080.D

			Compound	0.3	2	10	20	40	80	Avg	%RSD	
58)		48	112-tri-Cl-Et	0.226	0.143	0.120	0.116	0.121	0.118	0.141	30.67	1.000
59)		58	1,2-di-br-ethane	0.050	0.125	0.124	0.129	0.129	0.128	0.114	27.70	1.000
60)		51	di-Br-Cl-methane	0.117	0.177	0.166	0.165	0.170	0.172	0.161	13.59	
61)		46	t-13-di-cl-prope	0.200	0.197	0.206	0.204	0.206	0.197	0.202	2.11	
62)		105	1-Chlorohexane	0.564	0.285	0.272	0.253	0.249	0.237	0.310	40.49	0.999
63)	I	47	Cl-benzene-d5, I2	----------ISTD----------								
64)		54	MIBK	0.207	0.298	0.328	0.319	0.325	0.304	0.297	15.38	0.999
65)		49	1,3-di-cl-propan	0.624	0.665	0.699	0.690	0.647	0.598	0.654	5.95	
66)		59	tetra-Cl-ethene	0.767	0.892	0.960	0.927	0.884	0.850	0.880	7.60	
67)	M P	60	chlorobenzene	1.465	1.556	1.560	1.485	1.424	1.278	1.461	7.13	
68)		61	1112-tetra-Cl-Et	0.473	0.619	0.613	0.631	0.602	0.573	0.585	9.96	
69)	C	64	ethylbenzene	3.150	3.064	2.822	2.754	2.619	2.485	2.816	9.06	
70)		65	m/p-Xylenes x2	2.309	2.321	2.213	2.124	2.010	1.868	2.141	8.30	
71)		99	1-4-di-Cl-butane	0.809	0.710	0.649	0.615	0.570	0.518	0.645	16.06	
72)	P	52	bromoform	0.118	0.305	0.317	0.319	0.302	0.282	0.274	28.23	0.998
73)		66	styrene	1.595	1.641	1.561	1.507	1.441	1.326	1.512	7.58	
74)		67	o-xylene	2.457	2.410	2.147	2.035	1.889	1.700	2.106	13.98	
75)	P	68	1122-Tetra-Cl-Et	0.391	0.469	0.403	0.385	0.349	0.323	0.387	12.94	
76)		110	t-1,4-dichloro-		0.153	0.078	0.060	0.058	0.053	0.081	51.75	0.999
77)		106	Cl-benzyl	0.890	0.534	0.539	0.531	0.489	0.448	0.572	27.91	0.996
78)	I	62	1,4-DCB-d4 150 152	----------ISTD----------								
79)		69	123-tri-Cl-Pr		0.112	0.116	0.123	0.127	0.131	0.122	6.42	
80)	S	70	4-Br-1-F-Bz (S3)		0.935	0.877	0.886	0.890	0.880	0.893	2.69	
81)		71	isopropylbenzene	2.780	3.439	3.399	3.298	3.366	3.435	3.286	7.71	
82)		72	bromobenzene	0.527	0.700	0.760	0.772	0.787	0.782	0.721	13.87	
83)		73	n-propylbenzene	0.727	0.924	0.921	0.910	0.914	0.920	0.886	8.83	
84)		74	2-Cl-Tl 126	0.646	0.602	0.566	0.545	0.606	0.566	0.589	6.23	

(#) = Out of Range

4967

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 09:57:17 2003
Response via : Initial Calibration

Calibration Files
0.3 =3-0003.D 2 =3-002.D 10 =3-010.D
20 =3-020.D 40 =3-040.D 80 =3-080.D

		Compound		0.3	2	10	20	40	80	Avg	%RSD	
85)	75	4-Cl-Tl	126	0.683	0.834	0.866	0.784	0.843	0.816	0.804	8.13	
86)	76	135-tri-Me-Bz		2.482	2.722	2.700	2.625	2.675	2.716	2.653	3.43	
87)	79	tert-butylbenzen		2.218	2.871	2.824	2.765	2.829	2.837	2.724	9.19	
88)	78	124-tri-Me-Bz		1.891	2.455	2.250	2.296	2.326	2.317	2.256	8.48	
89)	80	13-di-Cl-Bz	146	0.934	1.158	1.264	1.084	1.198	1.258	1.149	10.87	
90)	82	14-di-Cl-Bz	146	1.527	1.764	1.616	1.744	1.694	1.675	1.670	5.24	
91)	81	sec-butylbenzene		3.330	4.148	4.224	3.968	4.057	4.172	3.983	8.35	
92)	77	4-iso-Pr-toluene		2.419	3.039	3.032	2.939	2.928	2.886	2.874	8.04	
93)	84	12-di-Cl-benzene		0.920	1.150	1.163	1.111	1.152	1.156	1.109	8.49	
94)	85	n-butylbenzene		3.034	2.990	3.069	2.970	2.978	3.028	3.012	1.28	
95)	86	12-diBr-3-Cl-Pra			0.063	0.077	0.085	0.089	0.091	0.081	13.95	
96)	87	124-tri-Cl-Bz		0.534	0.749	0.838	0.873	0.858	0.901	0.792	17.24	0.999
97)	88	naphthalene		0.804	0.553	0.616	0.666	0.652	0.700	0.665	12.68	
98)	90	123-tri-Cl-Bz		0.497	0.559	0.642	0.649	0.636	0.642	0.604	10.29	
99)	89	hx-Cl-butadiene		0.432	0.625	0.690	0.663	0.662	0.652	0.621	15.29	1.000

(#) = Out of Range

INITIAL CALIBRATION SUMMARY

Method File	E524G003
Last Calibration Update	Mon Jan 13 09:57:17 2003

Level 1 File Name	3-0003.D	**Level 1 ID**	0.3
Level 2 File Name	3-002.D	**Level 2 ID**	2
Level 3 File Name	3-010.D	**Level 3 ID**	10
Level 4 File Name	3-020.D	**Level 4 ID**	20
Level 5 File Name	3-040.D	**Level 5 ID**	40
Level 6 File Name	3-080.D	**Level 6 ID**	80
Level 7 File Name	3-020.D	**Level 7 ID**	cc

Compound Name	Level 1 Response	Level 2 Response	Level 3 Response	Level 4 Response	Level 5 Response	Level 6 Response	Level 7 Response	Coeff X^0	Coeff X^1 / ave RF	Coeff X^2	R^2 / RSD
1 Fluorobenzene I1 1	765834	768596	755237	739905	721219	703721	-1	------	------	-------	------
3 di-Cl-di-F-methane 85 87	9202	44272	235359	427426	820884	1551879	-1	0.0191	0.2750	0.0000	0.9996
4 Chloromethane 50 52	4751	30836	163038	374044	803175	1514667	-1	0.0000	0.2433	0.0000	0.1388
9 F114 85 135	8035	46094	252154	462947	909235	1714061	-1	0.0000	0.3193	0.0000	0.0593
5 vinyl chloride 62 64	4990	35625	183259	344227	682967	1258237	-1	0.0000	0.2307	0.0000	0.0396
6 bromomethane 94 96	5861	43488	181174	281305	570773	1116110	-1	0.0126	0.1961	0.0000	0.9990
7 Chloroethane 64 66	3629	27223	133510	250119	505034	952606	-1	0.0000	0.1709	0.0000	0.0425
8 tri-Cl-F-methane 101 103	7295	56379	326202	612174	1192828	2238212	-1	0.0000	0.3902	0.0000	0.1070
111 isopropyl alcohol x10	1236	8181	34708	55395	131600	244204	-1	0.0000	0.0045	0.0000	0.1257
100 ethyl ether x5	20361	108089	509174	980952	1975186	3742221	-1	0.0000	0.1425	0.0000	0.1211
102 Acrolein x10	3234	15074	75489	215710	340415	601157	-1	0.0000	0.0114	0.0000	0.1719
119 methyl acetate	4062	15788	82815	187169	-1	696519	-1	-0.0033	0.1242	0.0000	0.9997
104 Carbon disulfide	21121	133095	626926	1173322	2357195	4372134	-1	0.0000	0.8336	0.0000	0.0625
103 Acrylonitrilex10	4569	37044	178667	348877	701313	1341637	-1	0.0000	0.0239	0.0000	0.0128
95 Acetone x10	989	41993	128289	268909	465240	912905	-1	0.0227	0.0159	0.0000	0.9991
108 F-113	5327	41068	259145	480691	925581	1749444	-1	0.0000	0.2998	0.0000	0.1395
13 11-dichloroethene 61 96	8641	61263	309126	575822	1147783	2146767	-1	0.0000	0.3920	0.0000	0.0313
101 Acetonnitrilex10	2063	1527	53569	97490	189257	353648	-1	0.0013	0.0063	0.0000	0.9985
109 Iodomethane	3901	55824	290992	473953	954242	1666625	-1	0.0467	0.2964	0.0000	0.9961
113 Tert butyl alcohol x10	2556	18436	60720	133851	240444	485913	-1	0.0016	0.0086	0.0000	0.9991
18 methylene chloride 49 84	28023	111315	375753	602942	1052979	-1	-1	0.0818	0.3520	0.0000	0.9932

112 Allyl chloride	11807	73643	318868	616004	1168854	2056270	-1	0.0000	0.4336	0.0000	0.1239
200 Nitro methane x10	10089	68361	334791	633827	1264975	2385881	-1	0.0000	0.0436	0.0000	0.0192
10 t-Bu-Me-ether 73 57	19344	73627	300489	618307	1211982	2415631	-1	-0.0086	0.4281	0.0000	0.9997
19 t-12-di-Cl-ethene 96 61	7446	45222	225516	438020	867973	1629626	-1	0.0000	0.3005	0.0000	0.0405
98 Vinyl acetate x5	35861	233914	1080092	1161950	4543111	6984572	-1	0.0000	0.2704	0.0000	0.2248
21 11-dichloroethane 63 83	11490	83925	403704	780313	1539657	2853804	-1	0.0000	0.5248	0.0000	0.0336
91 2-butanone MEKx10	23960	146366	680153	1296553	2708302	5159574	-1	0.0000	0.0938	0.0000	0.0620
115 Di isoprop ether	2475	206054	993426	1953682	3898884	7414434	-1	0.0032	1.3231	0.0000	0.9998
22 c-12-di-Cl-ethene 96 61	6875	46067	219592	430734	857123	1613152	-1	0.0000	0.2941	0.0000	0.0183
23 22-Dichloropropane 77 97	13155	71811	330092	619878	1207116	2269373	-1	0.0000	0.4529	0.0000	0.1383
24 Br-Cl-methane 128 130	956	15248	78733	153832	312235	593248	-1	-0.0008	0.1060	0.0000	0.9998
25 chloroform 83 85	14881	81604	372529	722194	1453363	2739754	-1	0.0000	0.5251	0.0000	0.1186
201 Ethyl acetate x2	-1	44403	206670	296783	873148	1526995	-1	0.0000	0.1337	0.0000	0.1475
116 ETBE	20917	124488	594002	1154600	2264664	4329036	-1	0.0000	0.8068	0.0000	0.0650
117 Iso-butyl alcohol X10	5582	44403	221032	297076	880890	1546333	-1	0.0000	0.0268	0.0000	0.1460
26 tetrahydrofuranx5	1945	8407	36840	75144	146600	287877	-1	0.0000	0.0102	0.0000	0.0418
27 Di-Br-F-Methane (S1) 111 1	13867	59189	265788	517816	1038870	1963588	-1	0.0096	0.3493	0.0000	0.9997
34 111-tri-Cl-ethane 97 99	12459	65859	315664	604949	1193974	2324189	-1	0.0000	0.4374	0.0000	0.1185
30 12-dichloroethane 64 62	549	31555	154021	298086	600265	1155412	-1	-0.0025	0.2060	0.0000	0.9999
35 11-Di-Cl-propene 75 110	9488	58117	286388	549558	1091787	2099663	-1	0.0000	0.3822	0.0000	0.0404
29 1,2-di-Cl-ethane-d4 [Surr] 10	-1	26643	124715	242470	475685	894560	-1	0.0000	0.1652	0.0000	0.0314
36 benzene 78 52	19613	138554	661631	1277049	2547937	4710056	-1	0.0000	0.8690	0.0000	0.0263
37 CCl4 117 119	7832	47773	267339	493900	981263	1852391	-1	0.0000	0.3348	0.0000	0.0432
97 thiophene	10129	70133	323713	623624	1239916	2337761	-1	0.0000	0.4320	0.0000	0.0339
118 TAME	4367	97622	406861	792558	1521011	3045504	-1	0.0000	0.5555	0.0000	0.0806
39 12-di-Cl-propane 63 76	5869	38931	190695	376101	741594	1426638	-1	0.0000	0.2543	0.0000	0.0066
40 trichloroethene 130 132	5805	41064	207771	403682	804090	1515012	-1	0.0000	0.2693	0.0000	0.0339
96 Me-methacrylate	1472	19691	65318	123371	250724	519513	-1	-0.0068	0.0920	0.0000	0.9983
42 Br-di-Cl-methane 83 85	10138	55994	256691	484084	955698	1823535	-1	0.0000	0.3546	0.0000	0.1265
41 dibromomethane 174 172	2292	17911	96884	194764	383350	714384	-1	0.0000	0.1227	0.0000	0.1029

Compound Name	Level 1 Response	Level 2 Response	Level 3 Response	Level 4 Response	Level 5 Response	Level 6 Response	Level 7 Response	Coeff X^0	Coeff X^1 / ave RF	Coeff X^2	R^2 / RSD
45 c-13-di-Cl-propene 75 110	7832	48533	229072	445153	890451	1727952	-1	------	------	------	------
55 toluene-d8(S2) 100 99	-1	78299	377922	725871	1455135	2774904	-1	0.0000	0.4995	0.0000	0.0157
92 2-ClEt-Vi-ether10	10352	80060	410701	820365	1655105	3234891	-1	0.0000	0.0536	0.0000	0.0868
56 toluene 91 92	21278	126101	601438	1149709	2291459	4425814	-1	0.0000	0.8167	0.0000	0.0680

107 Et methacrylate	-1	35707	132945	165590	512644	828103	-1	0.0000	0.1690	0.0000	0.2625
93 2-Hexanone x5	10744	47646	218029	368204	831419	1601350	-1	0.0000	0.0568	0.0000	0.0778
48 112-tri-Cl-Et 97 83	5203	21908	90597	172036	347876	664699	-1	0.0031	0.1179	0.0000	0.9998
58 1,2-di-br-ethane 107 109	1144	19207	94012	191133	371448	723238	-1	-0.0016	0.1288	0.0000	1.0000
51 di-Br-Cl-methane 129 127	2693	27173	125300	243477	489254	967601	-1	0.0000	0.1610	0.0000	0.1359
46 t-13-di-cl-propene 75 110	4584	30276	155530	301394	594704	1109294	-1	0.0000	0.2015	0.0000	0.0211
105 1-Chlorohexane	12961	43864	205359	374248	719249	1336615	-1	0.0247	0.2364	0.0000	0.9994
47 Cl-benzene-d5, I2	226795	229493	225971	224981	233528	241678	-1	0.0000	1.0000	0.0000	0.0000
54 MIBK	1407	13676	74160	143757	303184	587112	-1	0.0184	0.3053	0.0000	0.9988
49 1,3-di-cl-propane 76 78	4247	30516	157929	310529	604220	1155285	-1	0.0000	0.6537	0.0000	0.0595
59 tetra-Cl-ethene 166 168	5221	40927	216892	417298	825820	1643233	-1	0.0000	0.8800	0.0000	0.0760

Compound Name	Level 1 Response	Level 2 Response	Level 3 Response	Level 4 Response	Level 5 Response	Level 6 Response	Level 7 Response	Coeff X^0	Coeff X^1 / ave RF	Coeff X^2	R^2 / RSD
60 chlorobenzene 112 77	9971	71440	352480	668143	1330525	2470738	-1	0.0000	------	------	------
61 1112-tetra-Cl-Et 131 133	3219	28400	138607	283855	562377	1108773	-1	0.0000	0.5853	0.0000	0.0996
64 ethylbenzene 91 106	21430	140640	637777	1239073	2446417	4804958	-1	0.0000	2.8157	0.0000	0.0906
65 m/p-Xylenes x2	31419	213036	1000145	1911139	3754507	7222435	-1	0.0000	2.1406	0.0000	0.0830
99 1-4-di-Cl-butane	5503	32572	146606	276558	532573	1001628	-1	0.0000	0.6450	0.0000	0.1606
52 bromoform 173 175	806	13982	71698	143599	281887	544898	-1	0.0303	0.2823	0.0000	0.9980
66 styrene 104 78	10850	75317	352645	677932	1346269	2563056	-1	0.0000	1.5116	0.0000	0.0758
67 o-xylene 91 106	16715	110603	485194	915641	1764503	3287299	-1	0.0000	2.1063	0.0000	0.1398
68 1122-Tetra-Cl-Et 83 85	2658	21540	91096	173152	326262	625224	-1	0.0000	0.3868	0.0000	0.1294
110 t-1,4-dichloro-2-butene	1095	7032	17679	27009	54200	103110	-1	0.0235	0.0507	0.0000	0.9991
106 Cl-benzyl	6053	24517	121704	238713	457227	866531	-1	0.0784	0.4469	0.0000	0.9969
62 1,4-DCB-d4 150 152 I3	197143	197148	188831	184633	176207	164785	-1	0.0000	1.0000	0.0000	0.0000
69 123-tri-Cl-Pr 110 97	253	4401	21971	45443	89331	172722	-1	0.0000	0.1218	0.0000	0.0642
70 4-Br-1-F-Bz (S3) 174 95	-1	36886	165570	327081	627145	1159540	-1	0.0000	0.8935	0.0000	0.0269
71 isopropylbenzene 105 120	16442	135584	641793	1217921	2372165	4528346	-1	0.0000	3.2861	0.0000	0.0771
72 bromobenzene 156 158	3119	27613	143515	285095	554412	1030644	-1	0.0000	0.7214	0.0000	0.1387
73 n-propylbenzene 120 78	4297	36443	173970	335858	643879	1212584	-1	0.0000	0.8858	0.0000	0.0883
74 2-Cl-Tl 126 128	3821	23738	106793	201349	427470	745993	-1	0.0000	0.5885	0.0000	0.0623
75 4-Cl-Tl 126 128	4042	32882	163598	289530	594245	1075809	-1	0.0000	0.8045	0.0000	0.0813
76 135-tri-Me-Bz 105 120	14680	107323	509842	969387	1885346	3580223	-1	0.0000	2.6533	0.0000	0.0343
79 tert-butylbenzene 119 91	13115	113211	533176	1020985	1994231	3739615	-1	0.0000	2.7239	0.0000	0.0919
78 124-tri-Me-Bz 105 120	11184	96787	424953	847796	1639260	3054447	-1	0.0000	2.2558	0.0000	0.0848
80 13-di-Cl-Bz 146 148	5522	45648	238597	400250	844281	1658291	-1	0.0000	1.1491	0.0000	0.1087

82 14-di-Cl-Bz 146 148	9029	69544	305231	644124	1193857	2207723	-1	0.0000	1.6699	0.0000	0.0524
81 sec-butylbenzene 105 134	19695	163551	797663	1465228	2859247	5499576	-1	0.0000	3.9831	0.0000	0.0835
77 4-iso-Pr-toluene 119 134	14306	119820	572630	1085210	2064029	3804782	-1	0.0000	2.8739	0.0000	0.0804
84 12-di-Cl-benzene 146 148	5444	45355	219614	410082	812246	1524040	-1	0.0000	1.1088	0.0000	0.0849
85 n-butylbenzene 91 134	17944	117913	579573	1096665	2099124	3991637	-1	0.0000	3.0116	0.0000	0.0128
86 12-diBr-3-Cl-Pra 157 155	-1	2498	14611	31395	62914	120318	-1	0.0000	0.0813	0.0000	0.1395
87 124-tri-Cl-Bz 180 182	3158	29532	158333	322231	604462	1187497	-1	-0.0539	0.9002	0.0000	0.9995
88 naphthalene 128 129	4753	21798	116373	245906	459400	922945	-1	0.0000	0.6651	0.0000	0.1268
90 123-tri-Cl-Bz 180 182	2940	22060	121207	239739	448256	845940	-1	0.0000	0.6042	0.0000	0.1029
89 hx-Cl-butadiene 225 260	2553	24644	130257	244690	466707	859594	-1	0.0135	0.6525	0.0000	0.9999

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-0003.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 14:27 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:28 2003
Print Time : Mon Jan 13 10:41 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4972

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.04	9.04	0.000	96	70	765.834	10.00		0.00	
47	47 Cl-benzene-d5, I2	12.67	12.66	0.000	82	119	226.795	10.00		0.01	
62	62 1,4-DCB-d4 150 15	15.16	15.16	0.000	152	150	197.143	10.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.45	7.44	0.000	111	113	13.867	0.45	0.5	2.26%	
29	29 1,2-di-Cl-ethane-	8.03	8.03	0.000	65	102	10.557	0.64	0.6	3.22%	
55	55 toluene-d8(S2)	11.16	11.15	0.000	100	99	18.222	0.43	0.4	2.17%	
70	70 4-Br-1-F-Bz (S3)	13.91	13.90	0.000	174	95	9.453	0.47	0.5	2.37%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	9.202	0.39	0.4	63	#
4	4 Chloromethane	2.79	2.79	0.000	50	52	4.751	0.25	0.3	55	#?
9	9 F114 85 135	2.82	2.84	-0.003	85	135	8.035	0.33	0.3	69	?
5	5 vinyl chloride	2.97	2.97	0.000	62	64	4.990	0.28	0.3	54	#
6	6 bromomethane	3.39	3.38	0.000	94	96	5.861	0.34	0.3	97	
7	7 Chloroethane	3.52	3.54	-0.002	64	66	3.629	0.28	0.3	56	#
8	8 tri-Cl-F-methane	4.16	4.16	0.000	101	103	7.295	0.25	0.2	76	
111	111 isopropyl alcoho	4.31	4.28	0.003	45	43	1.236	3.99	4.0	60	#
100	100 ethyl ether x5	4.45	4.45	0.000	59	74	20.361	1.87	1.9	77	
102	102 Acrolein x10	4.19	4.17	0.002	56	55	3.234	3.71	3.7	70	
119	119 methyl acetate	5.08	5.07	0.000	43	74	4.062	0.81	0.8	56	#?
104	104 Carbon disulfide	5.20	5.19	0.000	76	78	21.121	0.33	0.3	78	#
103	103 Acrylonitrilex10	4.94	4.91	0.004	53	52	4.569	2.49	2.5	66	m
95	95 Acetone x10	4.24	4.33	-0.009	43	58	0.989	0.67	0.7	98	?
108	108 F-113	5.04	5.05	-0.001	151	101	5.327	0.26	0.3	67	#
13	13 11-dichloroethene	4.78	4.78	0.000	61	96	8.641	0.29	0.3	80	?
101	101 Acetonnitrilex10	4.23	4.22	0.001	41	40	2.063	5.25	5.2	1	#?
109	109 Iodomethane	4.79	4.82	-0.003	142	127	3.901	0.16	0.2	53	#?
113	113 Tert butyl alcoh	4.83	4.87	-0.004	59	57	2.556	3.73	3.7	1	#

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

1/13/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-0003.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 14:27 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:28 2003
Print Time : Mon Jan 13 10:41 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4973

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.98	4.98	0.000	84	49	28.023	0.81	0.8	89	
	112 Allyl chloride	5.08	5.08	0.000	41	76	11.807	0.44	0.4	72	#?
200	200 Nitro methane x1	5.83	5.83	0.000	61	46	10.089	3.02	3.0	92	#?
10	10 t-Bu-Me-ether	6.02	6.01	0.001	73	57	19.344	0.51	0.5	98	
19	19 t-12-di-Cl-ethene	5.82	5.82	0.000	96	61	7.446	0.32	0.3	93	?
98	98 Vinyl acetate x5	6.41	6.41	0.000	43	86	35.861	1.71	1.7	93	#
21	21 11-dichloroethane	6.16	6.16	0.000	63	83	11.490	0.29	0.3	98	
91	91 2-butanone MEKx10	6.86	6.84	0.002	43	72	23.960	4.00	4.0	84	#
115	115 Di isoprop ether	6.65	6.85	-0.023	45	87	2.475	0.03	0.0	99	
22	22 c-12-di-Cl-ethene	6.98	6.97	0.000	96	61	6.875	0.30	0.3	96	
23	23 22-Dichloropropan	7.36	7.35	0.000	77	97	13.155	0.38	0.4	98	
24	24 Br-Cl-methane	7.21	7.19	0.002	128	130	0.956	0.13	0.1	0	m ?
25	25 chloroform	7.28	7.27	0.000	83	85	14.881	0.46	0.5	96	
201	201 Ethyl acetate x2	7.34	7.31	0.003	43	61	5.585	0.53	0.5	43	#? 1/13/03
116	116 ETBE	7.41	7.40	0.000	59	87	20.917	0.34	0.3	99	
117	117 Iso-butyl alcoho	7.34	7.31	0.003	43	42	5.582	2.89	2.9	1	#?
26	26 tetrahydrofuranx5	7.73	7.71	0.002	72	42	1.945	2.48	2.5	22	#
34	34 111-tri-Cl-ethane	8.24	8.23	0.000	97	99	12.459	0.37	0.4	95	
30	30 12-dichloroethane	8.16	8.13	0.003	62	64	0.549	0.04	0.0	77	
35	35 11-Di-Cl-propene	8.48	8.48	0.000	75	110	9.488	0.32	0.3	88	
36	36 benzene	8.76	8.76	0.000	78	52	19.613	0.29	0.3	92	
37	37 CCl4	8.68	8.69	0.000	117	119	7.832	0.31	0.3	92	
97	97 thiophene	8.90	8.89	0.000	84	58	10.129	0.31	0.3	94	
118	118 TAME	8.93	9.01	-0.008	73	43	4.367	0.10	0.1	99	
39	39 12-di-Cl-propane	9.51	9.50	0.001	63	76	5.869	0.30	0.3	63	#
40	40 trichloroethene	9.56	9.55	0.001	130	132	5.805	0.28	0.3	94	
96	96 Me-methacrylate	9.85	9.85	0.000	69	100	1.472	0.20	0.2	33	#
42	42 Br-di-Cl-methane	9.60	9.62	-0.002	83	85	10.138	0.46	0.5	98	
41	41 dibromomethane	9.46	9.45	0.001	174	172	2.292	0.24	0.2	28	#
45	45 c-13-di-Cl-propen	10.37	10.37	0.000	75	110	7.832	0.33	0.3	60	#
92	92 2-ClEt-Vi-ether10	10.15	10.15	0.000	63	43	10.352	2.52	2.5	75	#
56	56 toluene	11.24	11.23	0.000	91	92	21.278	0.34	0.3	87	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-0003.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 14:27 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:28 2003
Print Time : Mon Jan 13 10:41 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4974

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.51	11.37	0.016	69	99	0.955	0.08	0.1	83	?
93	93 2-Hexanone x5	11.49	11.49	0.000	43	58	10.744	3.07	3.1	92	?
48	48 112-tri-Cl-Et	11.03	11.03	0.000	97	83	5.203	0.62	0.6	70	
58	58 1,2-di-br-ethane	11.84	11.83	0.001	107	109	1.144	0.13	0.1	16	#
51	51 di-Br-Cl-methane	11.59	11.57	0.002	129	127	2.693	0.22	0.2	97	
46	46 t-13-di-cl-propen	10.89	10.86	0.003	75	110	4.584	0.30	0.3	66	#
105	105 1-Chlorohexane	12.65	12.64	0.001	55	93	12.961	0.77	0.8	41	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.47	10.52	-0.004	43	58	1.407	0.28	0.3	94	
49	49 1,3-di-cl-propane	11.31	11.29	0.002	76	78	4.247	0.29	0.3	42	#
59	59 tetra-Cl-ethene	12.01	12.01	0.000	166	168	5.221	0.26	0.3	99	
60	60 chlorobenzene	12.70	12.70	0.000	112	77	9.971	0.36	0.4	48	#
61	61 1112-tetra-Cl-Et	12.63	12.63	0.000	131	133	3.219	0.24	0.2	98	?
64	64 ethylbenzene	12.91	12.91	0.000	91	106	21.430	0.25	0.2	84	
65	65 m/p-Xylenes x2	13.11	13.11	0.000	91	106	31.419	0.65	0.6	89	
99	99 1-4-di-Cl-butane	13.48	13.46	0.002	55	41	5.503	0.46	0.5	59	#?
52	52 bromoform	13.26	13.23	0.003	173	175	0.806	0.13	0.1	30	m
66	66 styrene	13.43	13.43	0.000	104	78	10.850	0.32	0.3	85	
67	67 o-xylene	13.51	13.50	0.000	91	106	16.715	0.35	0.3	76	?
68	68 1122-Tetra-Cl-Et	13.53	13.50	0.002	83	85	2.658	0.44	0.4	87	?
110	110 t-1,4-dichloro-2	13.69	13.68	0.000	89	53	1.095	1.21	1.2	1	#
106	106 Cl-benzyl	15.13	15.13	0.000	91	126	6.053	0.62	0.6	61	#?
<<< I3 : ISTD ID = 62 >>>											
71	71 isopropylbenzene	13.87	13.85	0.001	105	120	16.442	0.25	0.3	87	
72	72 bromobenzene	14.11	14.10	0.000	156	158	3.119	0.22	0.2	98	
73	73 n-propylbenzene	14.29	14.28	0.000	120	78	4.297	0.23	0.2	56	#
74	74 2-Cl-Tl 126 1	14.40	14.38	0.001	126	128	3.821	0.33	0.3	39	m
75	75 4-Cl-Tl 126 1	14.46	14.45	0.000	126	128	4.042	0.31	0.3	43	m
76	76 135-tri-Me-Bz	14.57	14.56	0.000	105	120	14.680	0.28	0.3	84	
79	79 tert-butylbenzene	14.85	14.84	0.000	119	91	13.115	0.24	0.2	81	
78	78 124-tri-Me-Bz	14.94	14.94	0.000	105	120	11.184	0.25	0.3	97	
80	80 13-di-Cl-Bz 146	15.12	15.12	0.000	146	148	5.522	0.20	0.2	80	?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

4/13/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-0003.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 14:27 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:28 2003
Print Time : Mon Jan 13 10:41 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4975

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
82	82 14-di-Cl-Bz 146	15.20	15.18	0.001	146	148	9.029	0.29	0.3	1	m?
81	81 sec-butylbenzene	15.06	15.05	0.000	105	134	19.695	0.28	0.3	70	#
77	77 4-iso-Pr-toluene	15.23	15.22	0.000	119	134	14.306	0.25	0.3	91	?
84	84 12-di-Cl-benzene	15.54	15.53	0.000	146	148	5.444	0.25	0.2	91	
85	85 n-butylbenzene	15.61	15.61	0.000	91	134	17.944	0.36	0.4	73	#
87	87 124-tri-Cl-Bz	17.25	17.26	0.000	180	182	3.158	0.20	0.2	85	#
88	88 naphthalene	17.52	17.50	0.002	128	129	4.753	0.59	0.6	81	#?
90	90 123-tri-Cl-Bz	17.67	17.69	-0.001	180	182	2.940	0.28	0.3	1	m
89	89 hx-Cl-butadiene	17.51	17.53	-0.001	225	260	2.553	0.22	0.2	44	m?

1/13/03

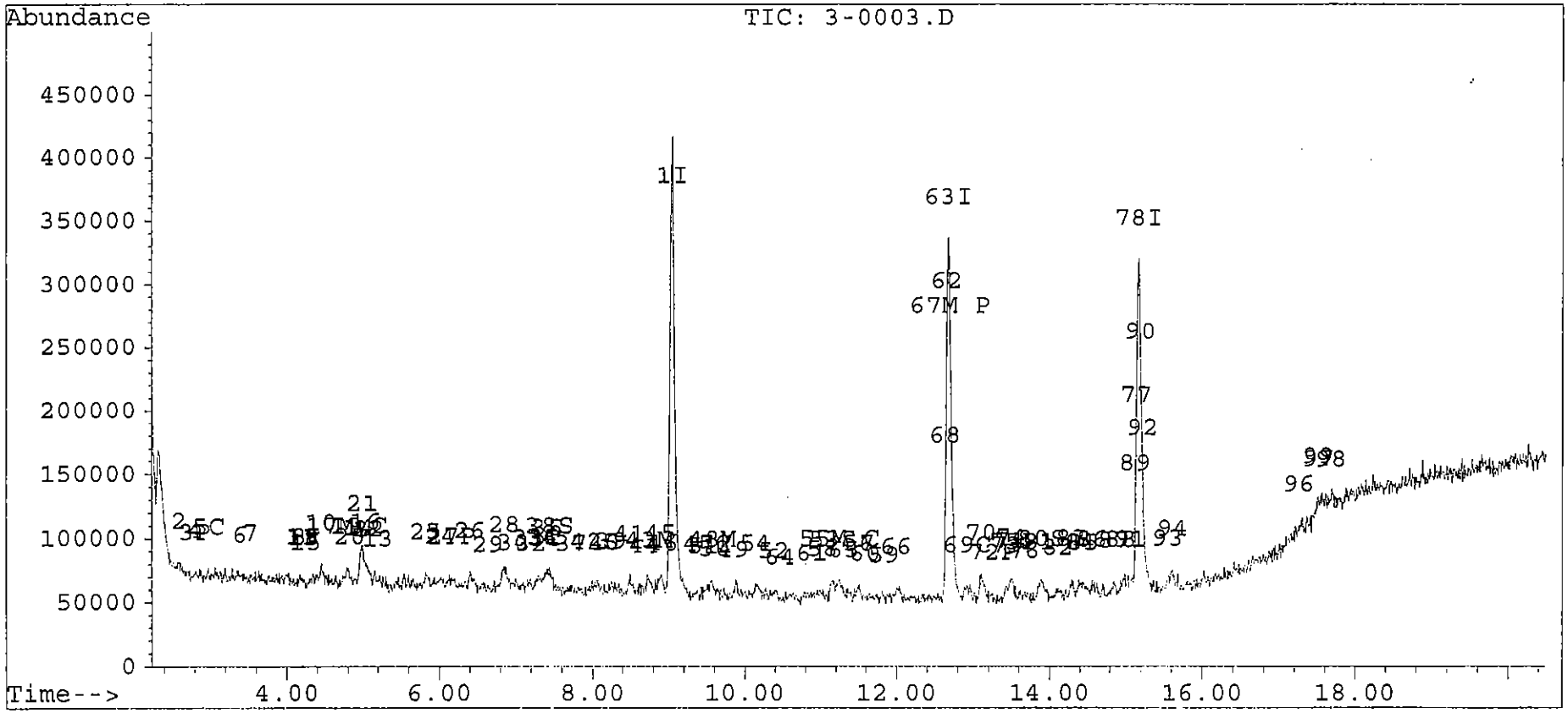
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G1044\3-0003.D Vial: 16
Acq On : 10 Jan 03 2:27 pm Operator: Eddie
Sample : f=1 Inst : GCMS-G
Misc : Multiplr: 1.00
Quant Time: Jan 13 9:28 2003 Quant Results File: quant.res

4976

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-002.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:26 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:30 2003
Print Time : Mon Jan 13 10:42 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4977

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.04	9.04	0.000	96	70	768.596	10.00		0.00	
47	47 Cl-benzene-d5, I2	12.67	12.66	0.000	82	119	229.493	10.00		0.00	
62	62 1,4-DCB-d4 150 15	15.16	15.16	0.000	152	150	197.148	10.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.43	7.44	0.000	111	113	59.189	1.93	1.9	9.63%	
29	29 1,2-di-Cl-ethane-	8.04	8.03	0.000	65	102	26.643	1.62	1.6	8.09%	
55	55 toluene-d8(S2)	11.15	11.15	0.000	100	99	78.299	1.86	1.9	9.29%	
70	70 4-Br-1-F-Bz (S3)	13.90	13.90	0.000	174	95	36.886	1.85	1.9	9.25%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	44.272	1.87	1.9	95	
4	4 Chloromethane	2.79	2.79	0.000	50	52	30.836	1.65	1.6	91	
9	9 F114 85 135	2.83	2.84	-0.002	85	135	46.094	1.87	1.9	82	
5	5 vinyl chloride	2.97	2.97	0.000	62	64	35.625	2.01	2.0	100	
6	6 bromomethane	3.39	3.38	0.000	94	96	43.488	2.52	2.5	82	
7	7 Chloroethane	3.53	3.54	-0.001	64	66	27.223	2.07	2.1	99	
8	8 tri-Cl-F-methane	4.16	4.16	0.000	101	103	56.379	1.91	1.9	87	m
111	111 isopropyl alcoho	4.26	4.28	-0.002	45	43	8.181	26.30	26.3	1	# 1/16/03
100	100 ethyl ether x5	4.45	4.45	0.000	59	74	108.089	9.87	9.9	99	
102	102 Acrolein x10	4.17	4.17	0.000	56	55	15.074	17.25	17.2	78	?
119	119 methyl acetate	5.07	5.07	0.000	43	74	15.788	3.14	3.1	100	?
104	104 Carbon disulfide	5.20	5.19	0.000	76	78	133.095	2.06	2.1	100	
103	103 Acrylonitrilex10	4.91	4.91	0.000	53	52	37.044	20.10	20.1	100	
95	95 Acetone x10	4.31	4.33	-0.002	43	58	41.993	28.37	28.4	90	
108	108 F-113	5.04	5.05	-0.001	151	101	41.068	2.00	2.0	97	
13	13 11-dichloroethene	4.78	4.78	0.000	61	96	61.263	2.03	2.0	95	
101	101 Acetonnitrilex10	4.21	4.22	0.000	41	40	1.527	3.87	3.9	1	#
109	109 Iodomethane	4.81	4.82	-0.001	142	127	55.824	2.32	2.3	97	
113	113 Tert butyl alcoh	4.86	4.87	-0.001	59	57	18.436	26.84	26.8	87	#

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-002.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:26 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:30 2003
Print Time : Mon Jan 13 10:42 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4978

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.98	4.98	0.000	84	49	111.315	3.20	3.2	97	
	112 Allyl chloride	5.08	5.08	0.000	41	76	73.643	2.71	2.7	92	?
200	200 Nitro methane x1	5.82	5.83	0.000	61	46	68.361	20.39	20.4	97	#?
10	10 t-Bu-Me-ether	6.01	6.01	0.000	73	57	73.627	1.95	1.9	94	
19	19 t-12-di-Cl-ethene	5.82	5.82	0.000	96	61	45.222	1.96	2.0	94	?
98	98 Vinyl acetate x5	6.40	6.41	0.000	43	86	233.914	11.10	11.1	100	
21	21 11-dichloroethane	6.16	6.16	0.000	63	83	83.925	2.08	2.1	97	
91	91 2-butanone MEKx10	6.84	6.84	0.000	43	72	146.366	24.33	24.3	95	?
115	115 Di isoprop ether	6.85	6.85	0.000	45	87	206.054	2.36	2.4	97	?
22	22 c-12-di-Cl-ethene	6.97	6.97	0.000	96	61	46.067	2.04	2.0	95	
23	23 22-Dichloropropan	7.35	7.35	0.000	77	97	71.811	2.06	2.1	93	
24	24 Br-Cl-methane	7.19	7.19	0.000	128	130	15.248	2.10	2.1	93	
25	25 chloroform	7.27	7.27	0.000	83	85	81.604	2.50	2.5	97	
201	201 Ethyl acetate x2	7.32	7.31	0.000	43	61	44.403	4.20	4.2	88	?
116	116 ETBE	7.41	7.40	0.000	59	87	124.488	2.01	2.0	100	
117	117 Iso-butyl alcoho	7.32	7.31	0.000	43	42	44.403	22.93	22.9	1	#?
26	26 tetrahydrofuranx5	7.71	7.71	0.000	72	42	8.407	10.67	10.7	92	
34	34 111-tri-Cl-ethane	8.23	8.23	0.000	97	99	65.859	1.96	2.0	100	
30	30 12-dichloroethane	8.12	8.13	-0.002	62	64	31.555	2.35	2.3	93	
35	35 11-Di-Cl-propene	8.49	8.48	0.000	75	110	58.117	1.98	2.0	99	
36	36 benzene	8.75	8.76	-0.001	78	52	138.554	2.07	2.1	100	
37	37 CCl4	8.70	8.69	0.002	117	119	47.773	1.86	1.9	96	
97	97 thiophene	8.90	8.89	0.000	84	58	70.133	2.11	2.1	98	
118	118 TAME	9.00	9.01	0.000	73	43	97.622	2.29	2.3	92	
39	39 12-di-Cl-propane	9.50	9.50	0.000	63	76	38.931	1.99	2.0	100	
40	40 trichloroethene	9.56	9.55	0.000	130	132	41.064	1.98	2.0	94	
96	96 Me-methacrylate	9.86	9.85	0.001	69	100	19.691	2.68	2.7	78	
42	42 Br-di-Cl-methane	9.62	9.62	0.000	83	85	55.994	2.55	2.6	94	
41	41 dibromomethane	9.46	9.45	0.000	174	172	17.911	1.90	1.9	95	
45	45 c-13-di-Cl-propen	10.38	10.37	0.000	75	110	48.533	2.02	2.0	93	
92	92 2-ClEt-Vi-ether10	10.15	10.15	0.000	63	43	80.060	19.39	19.4	93	
56	56 toluene	11.22	11.23	0.000	91	92	126.101	2.01	2.0	95	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-002.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:26 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:30 2003
Print Time : Mon Jan 13 10:42 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4979

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.36	11.37	0.000	69	99	35.707	3.06	3.1	93	
93	93 2-Hexanone x5	11.49	11.49	0.000	43	58	47.646	13.58	13.6	91	
48	48 112-tri-Cl-Et	11.04	11.03	0.001	97	83	21.908	2.62	2.6	95	
58	58 1,2-di-br-ethane	11.84	11.83	0.002	107	109	19.207	2.19	2.2	88	
51	51 di-Br-Cl-methane	11.58	11.57	0.001	129	127	27.173	2.20	2.2	96	
46	46 t-13-di-cl-propen	10.87	10.86	0.000	75	110	30.276	1.95	2.0	99	
105	105 1-Chlorohexane	12.65	12.64	0.002	55	93	43.864	2.59	2.6	88	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.53	10.52	0.000	43	58	13.676	2.73	2.7	96	
49	49 1,3-di-cl-propane	11.30	11.29	0.000	76	78	30.516	2.04	2.0	98	
59	59 tetra-Cl-ethene	12.01	12.01	0.000	166	168	40.927	2.03	2.0	96	
60	60 chlorobenzene	12.70	12.70	0.000	112	77	71.440	2.54	2.5	90	
61	61 1112-tetra-Cl-Et	12.63	12.63	0.000	131	133	28.400	2.11	2.1	100	?
64	64 ethylbenzene	12.91	12.91	0.000	91	106	140.640	1.61	1.6	97	
65	65 m/p-Xylenes x2	13.11	13.11	0.000	91	106	213.036	4.35	4.4	100	
99	99 1-4-di-Cl-butane	13.45	13.46	0.000	55	41	32.572	2.72	2.7	94	?
52	52 bromoform	13.20	13.23	-0.002	173	175	13.982	2.28	2.3	97	
66	66 styrene	13.43	13.43	0.000	104	78	75.317	2.17	2.2	97	?
67	67 o-xylene	13.49	13.50	0.000	91	106	110.603	2.29	2.3	94	?
68	68 1122-Tetra-Cl-Et	13.49	13.50	0.000	83	85	21.540	3.55	3.6	99	?
110	110 t-1,4-dichloro-2	13.66	13.68	-0.001	89	53	7.032	7.71	7.7	31	#?
106	106 Cl-benzyl	15.11	15.13	-0.001	91	126	24.517	2.48	2.5	96	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.64	13.64	0.000	110	97	4.401	1.83	1.8	93	?
71	71 isopropylbenzene	13.86	13.85	0.000	105	120	135.584	2.09	2.1	99	
72	72 bromobenzene	14.10	14.10	0.000	156	158	27.613	1.94	1.9	96	
73	73 n-propylbenzene	14.28	14.28	0.000	120	78	36.443	1.99	2.0	94	
74	74 2-Cl-Tl 126 1	14.38	14.38	0.000	126	128	23.738	2.05	2.0	88	
75	75 4-Cl-Tl 126 1	14.45	14.45	0.000	126	128	32.882	2.54	2.5	95	m
76	76 135-tri-Me-Bz	14.56	14.56	0.000	105	120	107.323	2.05	2.1	100	
79	79 tert-butylbenzene	14.84	14.84	0.000	119	91	113.211	2.10	2.1	96	
78	78 124-tri-Me-Bz	14.95	14.94	0.000	105	120	96.787	2.18	2.2	98	

1/13/03

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-002.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:26 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:30 2003
Print Time : Mon Jan 13 10:42 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4980

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80 13-di-Cl-Bz 146	15.12	15.12	0.000	146	148	45.648	1.67	1.7	96	?
82	82 14-di-Cl-Bz 146	15.19	15.18	0.000	146	148	69.544	2.26	2.3	95	?
81	81 sec-butylbenzene	15.04	15.05	0.000	105	134	163.551	2.35	2.4	95	
77	77 4-iso-Pr-toluene	15.22	15.22	0.000	119	134	119.820	2.11	2.1	99	?
84	84 12-di-Cl-benzene	15.53	15.53	0.000	146	148	45.355	2.07	2.1	100	
85	85 n-butylbenzene	15.61	15.61	0.000	91	134	117.913	2.33	2.3	95	
86	86 12-diBr-3-Cl-Pra	15.98	16.00	-0.001	157	155	2.498	1.56	1.6	29	#
87	87 124-tri-Cl-Bz	17.26	17.26	0.000	180	182	29.532	1.89	1.9	93	
88	88 naphthalene	17.50	17.50	0.000	128	129	21.798	2.70	2.7	82	#
90	90 123-tri-Cl-Bz	17.70	17.69	0.000	180	182	22.060	2.11	2.1	99	
89	89 hx-Cl-butadiene	17.54	17.53	0.000	225	260	24.644	2.11	2.1	84	#

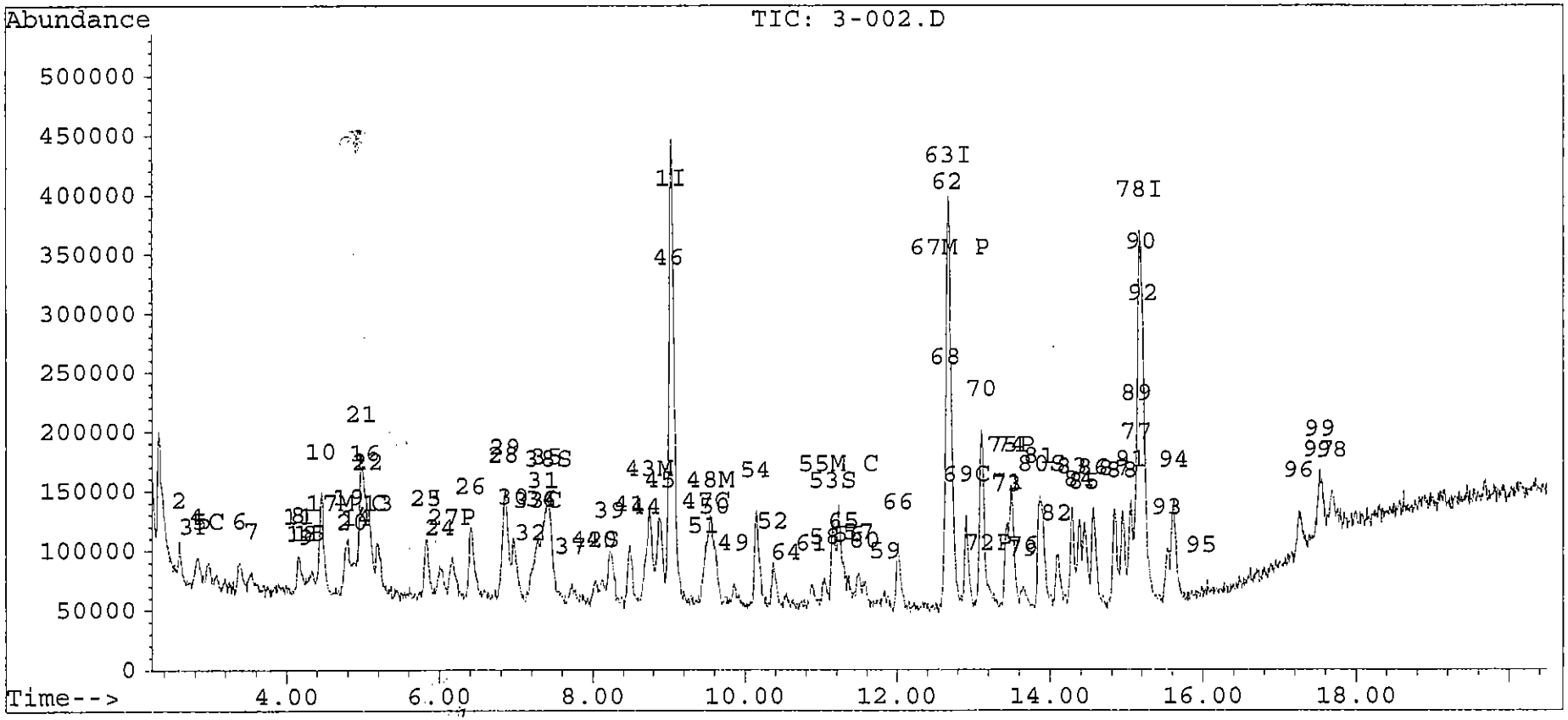
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G1044\3-002.D
Acq On : 10 Jan 03 3:26 pm
Sample : f=1
Misc :
Quant Time: Jan 13 9:30 2003

Vial: 2
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-010.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:55 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:33 2003
Print Time : Mon Jan 13 10:43 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4982

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.03	9.04	0.000	96	70	755.237	10.00		0.00	
47	47 Cl-benzene-d5, I2	12.67	12.66	0.000	82	119	225.971	10.00		0.01	
62	62 1,4-DCB-d4 150 15	15.16	15.16	0.000	152	150	188.831	10.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.44	7.44	0.000	111	113	265.788	8.80	8.8	43.99%	
29	29 1,2-di-Cl-ethane-	8.02	8.03	0.000	65	102	124.715	7.71	7.7	38.53%	
55	55 toluene-d8(S2)	11.15	11.15	0.000	100	99	377.922	9.13	9.1	45.65%	
70	70 4-Br-1-F-Bz (S3)	13.90	13.90	0.000	174	95	165.570	8.67	8.7	43.37%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.61	2.60	0.000	85	87	235.359	10.11	10.1	99	
4	4 Chloromethane	2.79	2.79	0.000	50	52	163.038	8.87	8.9	98	
9	9 F114 85 135	2.83	2.84	-0.001	85	135	252.154	10.44	10.4	98	
5	5 vinyl chloride	2.98	2.97	0.000	62	64	183.259	10.52	10.5	99	
6	6 bromomethane	3.38	3.38	0.000	94	96	181.174	10.70	10.7	98	m
7	7 Chloroethane	3.53	3.54	-0.001	64	66	133.510	10.35	10.3	99	
8	8 tri-Cl-F-methane	4.17	4.16	0.000	101	103	326.202	11.26	11.3	99	?
111	111 isopropyl alcoho	4.28	4.28	0.000	45	43	34.708	113.56	113.6	1	#
100	100 ethyl ether x5	4.45	4.45	0.000	59	74	509.174	47.30	47.3	99	
102	102 Acrolein x10	4.17	4.17	0.000	56	55	75.489	87.90	87.9	95	?
119	119 methyl acetate	5.06	5.07	-0.001	43	74	82.815	16.77	16.8	90	?
104	104 Carbon disulfide	5.19	5.19	0.000	76	78	626.926	9.87	9.9	100	
103	103 Acrylonitrilex10	4.90	4.91	0.000	53	52	178.667	98.65	98.7	100	
95	95 Acetone x10	4.33	4.33	0.000	43	58	128.289	88.19	88.2	92	
108	108 F-113	5.04	5.05	-0.001	151	101	259.145	12.84	12.8	99	?
13	13 11-dichloroethene	4.78	4.78	0.000	61	96	309.126	10.41	10.4	99	
101	101 Acetonnitrilex10	4.23	4.22	0.002	41	40	53.569	138.16	138.2	59	#
109	109 Iodomethane	4.82	4.82	0.000	142	127	290.992	12.33	12.3	99	
113	113 Tert butyl alcoh	4.87	4.87	0.000	59	57	60.720	89.96	90.0	91	#

m 1/13/03

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-010.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:55 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:33 2003
Print Time : Mon Jan 13 10:43 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4983

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.98	4.98	0.000	84	49	375.753	10.99	11.0	100	
	112 Allyl chloride	5.09	5.08	0.000	41	76	318.868	11.96	12.0	95	?
200	200 Nitro methane x1	5.82	5.83	-0.001	61	46	334.791	101.61	101.6	95	#?
10	10 t-Bu-Me-ether	6.01	6.01	0.000	73	57	300.489	8.08	8.1	98	
19	19 t-12-di-Cl-ethene	5.83	5.82	0.000	96	61	225.516	9.93	9.9	97	?
98	98 Vinyl acetate x5	6.41	6.41	0.000	43	86	1080.092	52.17	52.2	99	
21	21 11-dichloroethane	6.17	6.16	0.000	63	83	403.704	10.17	10.2	99	
91	91 2-butanone MEKx10	6.83	6.84	-0.001	43	72	680.153	115.05	115.1	99	?
115	115 Di isoprop ether	6.85	6.85	0.000	45	87	993.426	11.60	11.6	99	?
22	22 c-12-di-Cl-ethene	6.98	6.97	0.000	96	61	219.592	9.88	9.9	99	
23	23 22-Dichloropropan	7.36	7.35	0.000	77	97	330.092	9.65	9.6	99	
24	24 Br-Cl-methane	7.20	7.19	0.000	128	130	78.733	11.05	11.0	100	
25	25 chloroform	7.27	7.27	0.000	83	85	372.529	11.61	11.6	100	
201	201 Ethyl acetate x2	7.32	7.31	0.000	43	61	206.670	19.88	19.9	91	?
116	116 ETBE	7.40	7.40	0.000	59	87	594.002	9.75	9.7	98	
117	117 Iso-butyl alcoho	7.32	7.31	0.000	43	42	221.032	116.16	116.2	62	#?
26	26 tetrahydrofuranx5	7.72	7.71	0.000	72	42	36.840	47.60	47.6	80	
34	34 111-tri-Cl-ethane	8.23	8.23	0.000	97	99	315.664	9.56	9.6	98	
30	30 12-dichloroethane	8.14	8.13	0.000	62	64	154.021	11.67	11.7	98	
35	35 11-Di-Cl-propene	8.49	8.48	0.000	75	110	286.388	9.92	9.9	100	
36	36 benzene	8.75	8.76	-0.001	78	52	661.631	10.08	10.1	98	
37	37 CCl4	8.69	8.69	0.000	117	119	267.339	10.57	10.6	100	
97	97 thiophene	8.90	8.89	0.000	84	58	323.713	9.89	9.9	98	
118	118 TAME	9.00	9.01	0.000	73	43	406.861	9.72	9.7	98	
39	39 12-di-Cl-propane	9.50	9.50	0.000	63	76	190.695	9.93	9.9	99	
40	40 trichloroethene	9.55	9.55	0.000	130	132	207.771	10.22	10.2	98	
96	96 Me-methacrylate	9.85	9.85	0.000	69	100	65.318	9.06	9.1	99	
42	42 Br-di-Cl-methane	9.61	9.62	0.000	83	85	256.691	11.91	11.9	100	
41	41 dibromomethane	9.45	9.45	0.000	174	172	96.884	10.46	10.5	100	
45	45 c-13-di-Cl-propen	10.38	10.37	0.000	75	110	229.072	9.69	9.7	99	
92	92 2-ClEt-Vi-ether10	10.15	10.15	0.000	63	43	410.701	101.25	101.3	99	
56	56 toluene	11.23	11.23	0.000	91	92	601.438	9.74	9.7	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-010.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:55 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:33 2003
Print Time : Mon Jan 13 10:43 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4984

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.36	11.37	0.000	69	99	132.945	11.60	11.6	99	
93	93 2-Hexanone x5	11.49	11.49	0.000	43	58	218.029	63.26	63.3	93	
48	48 112-tri-Cl-Et	11.04	11.03	0.001	97	83	90.597	11.03	11.0	98	
58	58 1,2-di-br-ethane	11.84	11.83	0.001	107	109	94.012	10.89	10.9	98	
51	51 di-Br-Cl-methane	11.57	11.57	0.000	129	127	125.300	10.31	10.3	99	
46	46 t-13-di-cl-propen	10.88	10.86	0.001	75	110	155.530	10.21	10.2	96	
105	105 1-Chlorohexane	12.64	12.64	0.000	55	93	205.359	12.34	12.3	99	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.53	10.52	0.000	43	58	74.160	15.03	15.0	95	
49	49 1,3-di-cl-propane	11.30	11.29	0.001	76	78	157.929	10.71	10.7	96	
59	59 tetra-Cl-ethene	12.01	12.01	0.000	166	168	216.892	10.91	10.9	98	
60	60 chlorobenzene	12.70	12.70	0.000	112	77	352.480	12.72	12.7	100	
61	61 1112-tetra-Cl-Et	12.63	12.63	0.000	131	133	138.607	10.48	10.5	98	?
64	64 ethylbenzene	12.90	12.91	0.000	91	106	637.777	7.42	7.4	99	
65	65 m/p-Xylenes x2	13.10	13.11	0.000	91	106	1000.145	20.75	20.8	98	
99	99 1-4-di-Cl-butane	13.46	13.46	0.000	55	41	146.606	12.42	12.4	99	?
52	52 bromoform	13.22	13.23	0.000	173	175	71.698	11.86	11.9	98	
66	66 styrene	13.43	13.43	0.000	104	78	352.645	10.32	10.3	99	?
67	67 o-xylene	13.50	13.50	0.000	91	106	485.194	10.18	10.2	99	?
68	68 1122-Tetra-Cl-Et	13.51	13.50	0.000	83	85	91.096	15.26	15.3	95	?
110	110 t-1,4-dichloro-2	13.68	13.68	0.000	89	53	17.679	19.68	19.7	81	#
106	106 Cl-benzyl	15.13	15.13	0.000	91	126	121.704	12.48	12.5	99	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.65	13.64	0.000	110	97	21.971	9.56	9.6	95	
71	71 isopropylbenzene	13.85	13.85	0.000	105	120	641.793	10.34	10.3	100	
72	72 bromobenzene	14.10	14.10	0.000	156	158	143.515	10.54	10.5	95	
73	73 n-propylbenzene	14.28	14.28	0.000	120	78	173.970	9.90	9.9	99	
74	74 2-Cl-Tl 126 1	14.38	14.38	0.000	126	128	106.793	9.61	9.6	93	
75	75 4-Cl-Tl 126 1	14.44	14.45	0.000	126	128	163.598	13.21	13.2	100	m
76	76 135-tri-Me-Bz	14.56	14.56	0.000	105	120	509.842	10.18	10.2	98	
79	79 tert-butylbenzene	14.83	14.84	0.000	119	91	533.176	10.35	10.3	99	
78	78 124-tri-Me-Bz	14.94	14.94	0.000	105	120	424.953	9.98	10.0	96	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

1/13/03

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-010.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 15:55 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:33 2003
Print Time : Mon Jan 13 10:43 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4985

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80 13-di-Cl-Bz 146	15.12	15.12	0.000	146	148	238.597	9.11	9.1	94	?
82	82 14-di-Cl-Bz 146	15.18	15.18	0.000	146	148	305.231	10.34	10.3	92	
81	81 sec-butylbenzene	15.05	15.05	0.000	105	134	797.663	11.98	12.0	97	
77	77 4-iso-Pr-toluene	15.22	15.22	0.000	119	134	572.630	10.55	10.6	100	
84	84 12-di-Cl-benzene	15.53	15.53	0.000	146	148	219.614	10.49	10.5	99	
85	85 n-butylbenzene	15.61	15.61	0.000	91	134	579.573	11.97	12.0	100	
86	86 12-diBr-3-Cl-Pra	15.99	16.00	0.000	157	155	14.611	9.52	9.5	93	
87	87 124-tri-Cl-Bz	17.26	17.26	0.000	180	182	158.333	10.59	10.6	97	
88	88 naphthalene	17.50	17.50	0.000	128	129	116.373	15.07	15.1	99	
90	90 123-tri-Cl-Bz	17.70	17.69	0.000	180	182	121.207	12.12	12.1	97	
89	89 hx-Cl-butadiene	17.54	17.53	0.000	225	260	130.257	11.63	11.6	98	

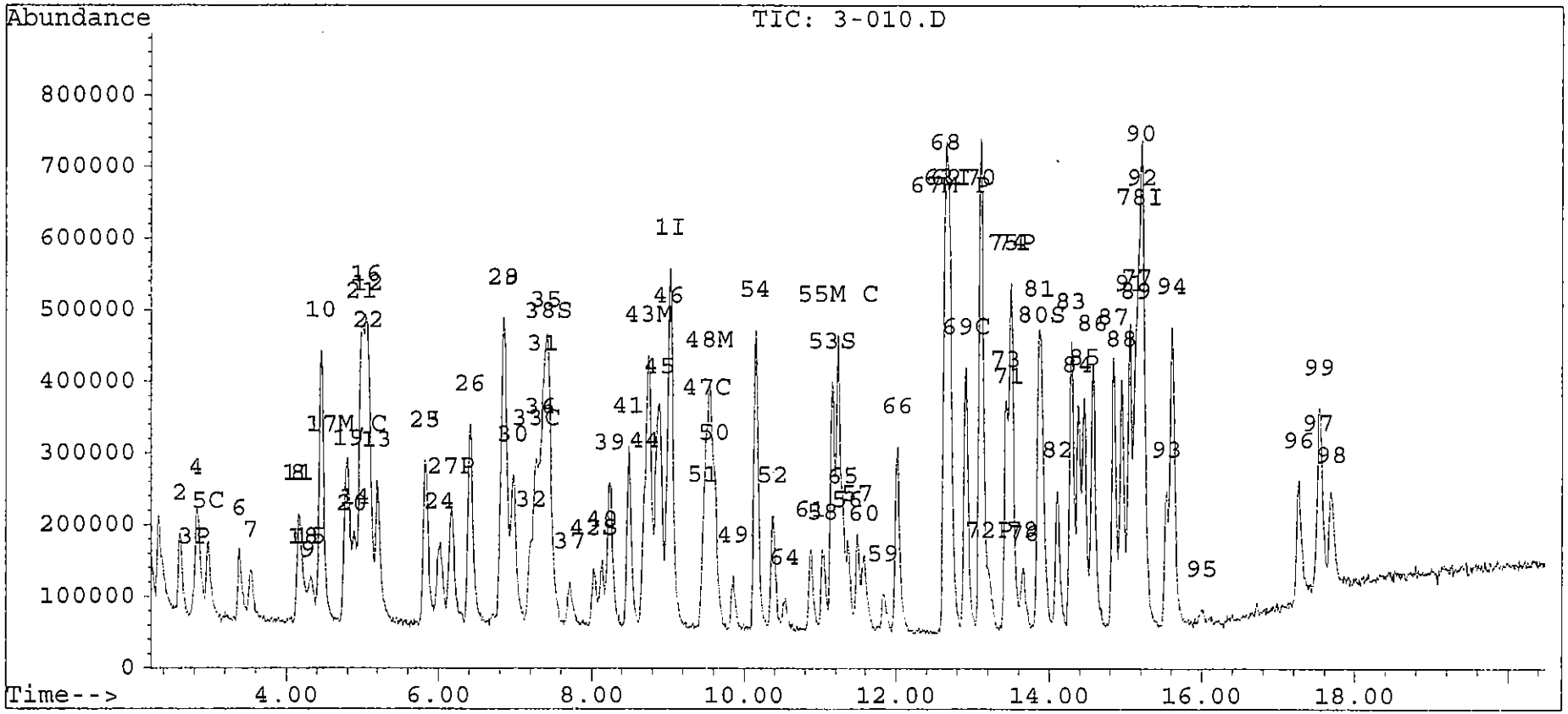
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G1044\3-010.D
Acq On : 10 Jan 03 3:55 pm
Sample : f=1
Misc :
Quant Time: Jan 13 9:33 2003

Vial: 3
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-020.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:24 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:35 2003
Print Time : Mon Jan 13 10:43 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4987

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.04	9.04	0.000	96	70	739.905	10.00		0.00	
47	47 Cl-benzene-d5, I2	12.66	12.66	0.000	82	119	224.981	10.00		0.00	
62	62 1,4-DCB-d4 150 15	15.16	15.16	0.000	152	150	184.633	10.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.44	7.44	0.000	111	113	517.816	17.49	17.5	87.47%	
29	29 1,2-di-Cl-ethane-	8.03	8.03	0.000	65	102	242.470	15.29	15.3	76.47%	
55	55 toluene-d8(S2)	11.15	11.15	0.000	100	99	725.871	17.90	17.9	89.50%	
70	70 4-Br-1-F-Bz (S3)	13.90	13.90	0.000	174	95	327.081	17.52	17.5	87.62%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	427.426	18.74	18.7	100	
4	4 Chloromethane	2.79	2.79	0.000	50	52	374.044	20.77	20.8	100	
9	9 F114 85 135	2.84	2.84	0.000	85	135	462.947	19.56	19.6	100	
5	5 vinyl chloride	2.97	2.97	0.000	62	64	344.227	20.16	20.2	100	
6	6 bromomethane	3.38	3.38	0.000	94	96	281.305	16.95	17.0	100	
7	7 Chloroethane	3.54	3.54	0.000	64	66	250.119	19.79	19.8	100	
8	8 tri-Cl-F-methane	4.16	4.16	0.000	101	103	612.174	21.57	21.6	100	?
111	111 isopropyl alcoho	4.28	4.28	0.000	45	43	55.395	185.00	185.0	98	
100	100 ethyl ether x5	4.45	4.45	0.000	59	74	980.952	93.02	93.0	100	
102	102 Acrolein x10	4.17	4.17	0.000	56	55	215.710	256.38	256.4	100	?
119	119 methyl acetate	5.07	5.07	0.000	43	74	187.169	38.69	38.7	100	?
104	104 Carbon disulfide	5.19	5.19	0.000	76	78	1173.322	18.86	18.9	99	
103	103 Acrylonitrilex10	4.91	4.91	0.000	53	52	348.877	196.63	196.6	100	
95	95 Acetone x10	4.33	4.33	0.000	43	58	268.909	188.68	188.7	100	
108	108 F-113	5.05	5.05	0.000	151	101	480.691	24.32	24.3	100	?
13	13 11-dichloroethene	4.78	4.78	0.000	61	96	575.822	19.79	19.8	99	
101	101 Acetonnitrilex10	4.22	4.22	0.000	41	40	97.490	256.65	256.7	100	
109	109 Iodomethane	4.82	4.82	0.000	142	127	473.953	20.50	20.5	100	
113	113 Tert butyl alcoh	4.87	4.87	0.000	59	57	133.851	202.41	202.4	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-020.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:24 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:35 2003
Print Time : Mon Jan 13 10:44 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4988

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.98	4.98	0.000	84	49	602.942	18.01	18.0	100	
	112 Allyl chloride	5.08	5.08	0.000	41	76	616.004	23.57	23.6	100	?
200	200 Nitro methane x1	5.83	5.83	0.000	61	46	633.827	196.35	196.3	100	?
10	10 t-Bu-Me-ether	6.01	6.01	0.000	73	57	618.307	16.97	17.0	99	
19	19 t-12-di-Cl-ethene	5.82	5.82	0.000	96	61	438.020	19.68	19.7	100	?
98	98 Vinyl acetate x5	6.41	6.41	0.000	43	86	1161.950	57.29	57.3	100	
21	21 11-dichloroethane	6.16	6.16	0.000	63	83	780.313	20.06	20.1	100	
91	91 2-butanone MEKx10	6.84	6.84	0.000	43	72	1296.553	223.87	223.9	100	?
115	115 Di isoprop ether	6.85	6.85	0.000	45	87	1953.682	23.28	23.3	100	?
22	22 c-12-di-Cl-ethene	6.97	6.97	0.000	96	61	430.734	19.78	19.8	100	
23	23 22-Dichloropropan	7.35	7.35	0.000	77	97	619.878	18.49	18.5	100	
24	24 Br-Cl-methane	7.19	7.19	0.000	128	130	153.832	22.03	22.0	100	
25	25 chloroform	7.27	7.27	0.000	83	85	722.194	22.98	23.0	100	
201	201 Ethyl acetate x2	7.31	7.31	0.000	43	61	296.783	29.13	29.1	99	?
116	116 ETBE	7.40	7.40	0.000	59	87	1154.600	19.34	19.3	100	
117	117 Iso-butyl alcoho	7.31	7.31	0.000	43	42	297.076	159.36	159.4	100	?
26	26 tetrahydrofuranx5	7.71	7.71	0.000	72	42	75.144	99.10	99.1	100	
34	34 111-tri-Cl-ethane	8.23	8.23	0.000	97	99	604.949	18.69	18.7	100	
30	30 12-dichloroethane	8.13	8.13	0.000	62	64	298.086	23.05	23.1	100	
35	35 11-Di-Cl-propene	8.48	8.48	0.000	75	110	549.558	19.43	19.4	100	
36	36 benzene	8.76	8.76	0.000	78	52	1277.049	19.85	19.9	100	
37	37 CCl4	8.69	8.69	0.000	117	119	493.900	19.94	19.9	100	
97	97 thiophene	8.89	8.89	0.000	84	58	623.624	19.45	19.5	98	
118	118 TAME	9.01	9.01	0.000	73	43	792.558	19.33	19.3	99	
39	39 12-di-Cl-propane	9.50	9.50	0.000	63	76	376.101	19.98	20.0	100	
40	40 trichloroethene	9.55	9.55	0.000	130	132	403.682	20.26	20.3	100	
96	96 Me-methacrylate	9.85	9.85	0.000	69	100	123.371	17.47	17.5	100	
42	42 Br-di-Cl-methane	9.62	9.62	0.000	83	85	484.084	22.93	22.9	99	
41	41 dibromomethane	9.45	9.45	0.000	174	172	194.764	21.46	21.5	100	
45	45 c-13-di-Cl-propen	10.37	10.37	0.000	75	110	445.153	19.23	19.2	100	
92	92 2-ClEt-Vi-ether10	10.15	10.15	0.000	63	43	820.365	206.44	206.4	100	
56	56 toluene	11.23	11.23	0.000	91	92	1149.709	19.01	19.0	100	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-020.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:24 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:35 2003
Print Time : Mon Jan 13 10:44 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4989

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.37	11.37	0.000	69	99	165.590	14.75	14.8	100	
93	93 2-Hexanone x5	11.49	11.49	0.000	43	58	368.204	109.05	109.1	99	
48	48 112-tri-Cl-Et	11.03	11.03	0.000	97	83	172.036	21.38	21.4	100	
58	58 1,2-di-br-ethane	11.83	11.83	0.000	107	109	191.133	22.61	22.6	100	
51	51 di-Br-Cl-methane	11.57	11.57	0.000	129	127	243.477	20.44	20.4	100	
46	46 t-13-di-cl-propen	10.86	10.86	0.000	75	110	301.394	20.19	20.2	100	
105	105 1-Chlorohexane	12.64	12.64	0.000	55	93	374.248	22.95	22.9	100	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.52	10.52	0.000	43	58	143.757	29.26	29.3	99	
49	49 1,3-di-cl-propane	11.29	11.29	0.000	76	78	310.529	21.15	21.1	100	
59	59 tetra-Cl-ethene	12.01	12.01	0.000	166	168	417.298	21.08	21.1	100	
60	60 chlorobenzene	12.70	12.70	0.000	112	77	668.143	24.21	24.2	100	
61	61 1112-tetra-Cl-Et	12.63	12.63	0.000	131	133	283.855	21.56	21.6	100	?
64	64 ethylbenzene	12.91	12.91	0.000	91	106	1239.073	14.48	14.5	98	
65	65 m/p-Xylenes x2	13.11	13.11	0.000	91	106	1911.139	39.83	39.8	100	
99	99 1-4-di-Cl-butane	13.46	13.46	0.000	55	41	276.558	23.53	23.5	99	?
52	52 bromoform	13.23	13.23	0.000	173	175	143.599	23.85	23.8	100	
66	66 styrene	13.43	13.43	0.000	104	78	677.932	19.93	19.9	100	?
67	67 o-xylene	13.50	13.50	0.000	91	106	915.641	19.30	19.3	100	?
68	68 1122-Tetra-Cl-Et	13.50	13.50	0.000	83	85	173.152	29.14	29.1	100	?
110	110 t-1,4-dichloro-2	13.68	13.68	0.000	89	53	27.009	30.20	30.2	94	
106	106 Cl-benzyl	15.13	15.13	0.000	91	126	238.713	24.59	24.6	99	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.64	13.64	0.000	110	97	45.443	20.21	20.2	100	
71	71 isopropylbenzene	13.85	13.85	0.000	105	120	1217.921	20.07	20.1	100	
72	72 bromobenzene	14.10	14.10	0.000	156	158	285.095	21.41	21.4	100	
73	73 n-propylbenzene	14.28	14.28	0.000	120	78	335.858	19.55	19.5	100	
74	74 2-Cl-Tl 126 1	14.38	14.38	0.000	126	128	201.349	18.53	18.5	100	
75	75 4-Cl-Tl 126 1	14.45	14.45	0.000	126	128	289.530	23.91	23.9	93	m
76	76 135-tri-Me-Bz	14.56	14.56	0.000	105	120	969.387	19.79	19.8	100	
79	79 tert-butylbenzene	14.84	14.84	0.000	119	91	1020.985	20.26	20.3	99	
78	78 124-tri-Me-Bz	14.94	14.94	0.000	105	120	847.796	20.36	20.4	100	

1/13/03

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-020.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:24 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:35 2003
Print Time : Mon Jan 13 10:44 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4990

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-di-Cl-Bz 146	15.12	15.12	0.000	146	148	400.250	15.63	15.6	84	?
82	82	14-di-Cl-Bz 146	15.18	15.18	0.000	146	148	644.124	22.31	22.3	100	
81	81	sec-butylbenzene	15.05	15.05	0.000	105	134	1465.228	22.51	22.5	97	
77	77	4-iso-Pr-toluene	15.22	15.22	0.000	119	134	1085.210	20.45	20.5	100	
84	84	12-di-Cl-benzene	15.53	15.53	0.000	146	148	410.082	20.03	20.0	100	
85	85	n-butylbenzene	15.61	15.61	0.000	91	134	1096.665	23.17	23.2	100	
86	86	12-diBr-3-Cl-Pra	16.00	16.00	0.000	157	155	31.395	20.93	20.9	100	
87	87	124-tri-Cl-Bz	17.26	17.26	0.000	180	182	322.231	22.03	22.0	100	
88	88	naphthalene	17.50	17.50	0.000	128	129	245.906	32.56	32.6	100	
90	90	123-tri-Cl-Bz	17.69	17.69	0.000	180	182	239.739	24.52	24.5	100	
89	89	hx-Cl-butadiene	17.53	17.53	0.000	225	260	244.690	22.34	22.3	100	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

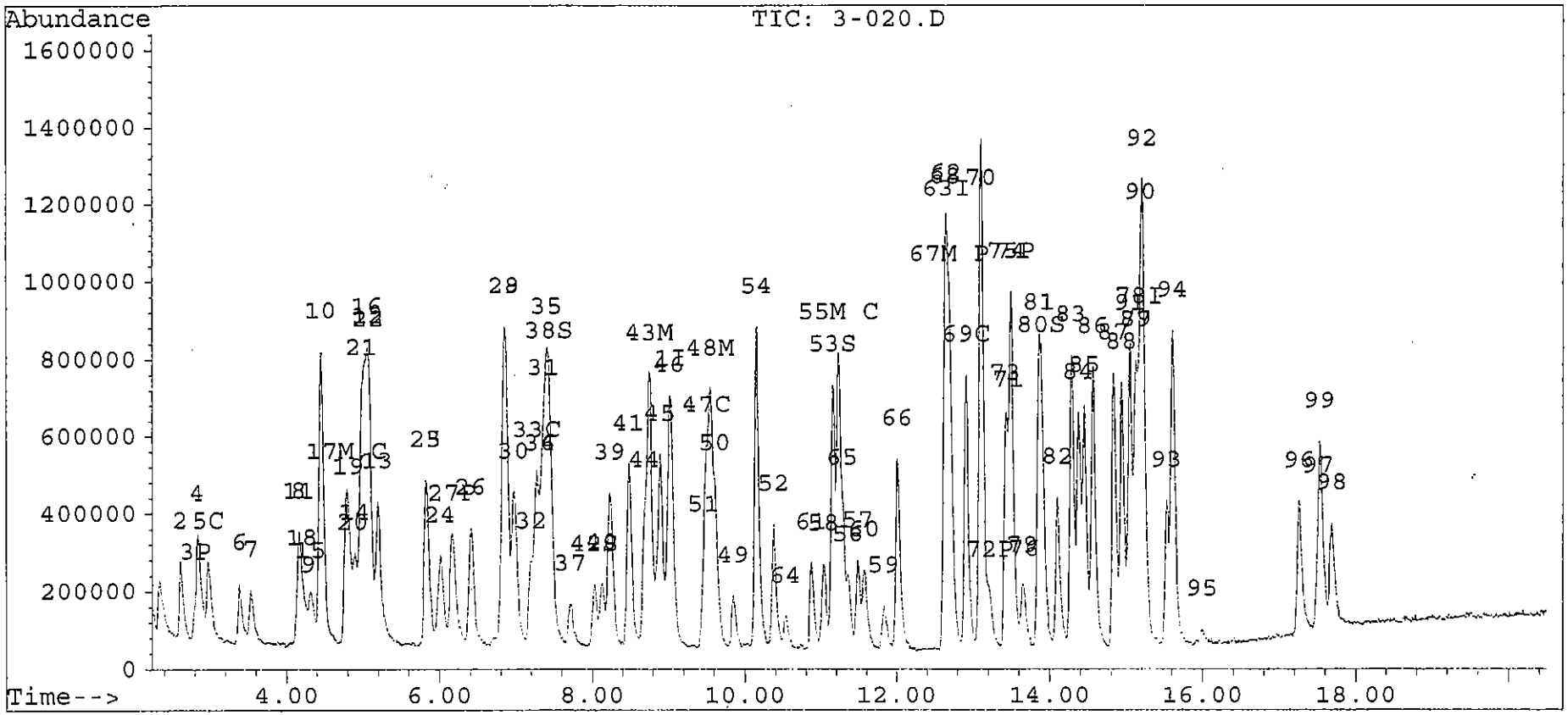
Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G1044\3-020.D
Acq On : 10 Jan 03 4:24 pm
Sample : f=1
Misc :
Quant Time: Jan 13 9:35 2003

Vial: 4
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration

4991



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-040.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:54 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:38 2003
Print Time : Mon Jan 13 10:44 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4992

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.04	9.04	0.000	96	70	721.219	10.00		0.00	
47	47 Cl-benzene-d5, I2	12.67	12.66	0.001	82	119	233.528	10.00		0.01	
62	62 1,4-DCB-d4 150 15	15.18	15.16	0.001	152	150	176.207	10.00		0.02	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.44	7.44	0.000	111	113	1038.870	36.01	36.0	180.04%	
29	29 1,2-di-Cl-ethane-	8.02	8.03	0.000	65	102	475.685	30.78	30.8	153.91%	
55	55 toluene-d8(S2)	11.15	11.15	0.000	100	99	1455.135	36.81	36.8	184.07%	
70	70 4-Br-1-F-Bz (S3)	13.90	13.90	0.000	174	95	627.145	35.21	35.2	176.03%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	820.884	36.93	36.9	99	
4	4 Chloromethane	2.79	2.79	0.000	50	52	803.175	45.76	45.8	100	
9	9 F114 85 135	2.83	2.84	-0.002	85	135	909.235	39.41	39.4	94	
5	5 vinyl chloride	2.97	2.97	0.000	62	64	682.967	41.04	41.0	99	
6	6 bromomethane	3.37	3.38	0.000	94	96	570.773	35.29	35.3	96	
7	7 Chloroethane	3.52	3.54	-0.002	64	66	505.034	40.99	41.0	99	
8	8 tri-Cl-F-methane	4.16	4.16	0.000	101	103	1192.828	43.11	43.1	100	?
111	111 isopropyl alcoho	4.26	4.28	-0.002	45	43	131.600	450.89	450.9	1	#
100	100 ethyl ether x5	4.45	4.45	0.000	59	74	1975.186	192.15	192.1	99	
102	102 Acrolein x10	4.17	4.17	0.000	56	55	340.415	415.08	415.1	92	?
119	119 methyl acetate	5.07	5.07	0.000	43	74	271.933	57.66	57.7	96	?
104	104 Carbon disulfide	5.19	5.19	0.000	76	78	2357.195	38.87	38.9	100	
103	103 Acrylonitrilex10	4.90	4.91	0.000	53	52	701.313	405.50	405.5	98	
95	95 Acetone x10	4.32	4.33	0.000	43	58	465.240	334.90	334.9	98	
108	108 F-113	5.03	5.05	-0.002	151	101	925.581	48.03	48.0	100	
13	13 11-dichloroethene	4.77	4.78	0.000	61	96	1147.783	40.46	40.5	99	
101	101 Acetonnitrilex10	4.22	4.22	0.000	41	40	189.257	511.14	511.1	80	#
109	109 Iodomethane	4.81	4.82	0.000	142	127	954.242	42.35	42.3	99	
113	113 Tert butyl alcoh	4.87	4.87	0.000	59	57	240.444	373.03	373.0	96	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-040.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:54 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:38 2003
Print Time : Mon Jan 13 10:44 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4993

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.98	4.98	0.000	84	49	1052.979	32.26	32.3	100	
	112 Allyl chloride	5.08	5.08	0.000	41	76	1168.854	45.89	45.9	99	?
200	200 Nitro methane x1	5.82	5.83	0.000	61	46	1264.975	402.01	402.0	100	?
10	10 t-Bu-Me-ether	6.01	6.01	0.000	73	57	1211.982	34.13	34.1	98	
19	19 t-12-di-Cl-ethene	5.82	5.82	0.000	96	61	867.973	40.01	40.0	99	?
98	98 Vinyl acetate x5	6.41	6.41	0.000	43	86	4543.111	229.80	229.8	99	
21	21 11-dichloroethane	6.15	6.16	0.000	63	83	1539.657	40.61	40.6	98	
91	91 2-butanone MEKx10	6.84	6.84	0.000	43	72	2708.302	479.74	479.7	99	?
115	115 Di isoprop ether	6.85	6.85	0.000	45	87	3898.884	47.66	47.7	100	?
22	22 c-12-di-Cl-ethene	6.97	6.97	0.000	96	61	857.123	40.38	40.4	99	
23	23 22-Dichloropropan	7.36	7.35	0.001	77	97	1207.116	36.94	36.9	99	
24	24 Br-Cl-methane	7.19	7.19	0.000	128	130	312.235	45.88	45.9	99	
25	25 chloroform	7.27	7.27	0.000	83	85	1453.363	47.45	47.4	99	
201	201 Ethyl acetate x2	7.31	7.31	0.000	43	61	873.148	87.93	87.9	83	#?
116	116 ETBE	7.40	7.40	0.000	59	87	2264.664	38.92	38.9	99	
117	117 Iso-butyl alcoho	7.31	7.31	0.000	43	42	880.890	484.77	484.8	63	#?
26	26 tetrahydrofuranx5	7.71	7.71	0.000	72	42	146.600	198.35	198.3	94	
34	34 111-tri-Cl-ethane	8.24	8.23	0.000	97	99	1193.974	37.85	37.8	97	
30	30 12-dichloroethane	8.13	8.13	0.000	62	64	600.265	47.63	47.6	99	
35	35 11-Di-Cl-propene	8.48	8.48	0.000	75	110	1091.787	39.61	39.6	99	
36	36 benzene	8.75	8.76	0.000	78	52	2547.937	40.64	40.6	100	
37	37 CCl4	8.69	8.69	0.000	117	119	981.263	40.64	40.6	100	
97	97 thiophene	8.90	8.89	0.000	84	58	1239.916	39.68	39.7	99	
118	118 TAME	9.01	9.01	0.000	73	43	1521.011	38.05	38.1	100	
39	39 12-di-Cl-propane	9.50	9.50	0.000	63	76	741.594	40.42	40.4	100	
40	40 trichloroethene	9.55	9.55	0.000	130	132	804.090	41.41	41.4	100	
96	96 Me-methacrylate	9.85	9.85	0.000	69	100	250.724	36.43	36.4	97	
42	42 Br-di-Cl-methane	9.61	9.62	0.000	83	85	955.698	46.44	46.4	98	
41	41 dibromomethane	9.45	9.45	0.000	174	172	383.350	43.33	43.3	99	
45	45 c-13-di-Cl-propen	10.37	10.37	0.000	75	110	890.451	39.45	39.5	99	
92	92 2-ClEt-Vi-ether10	10.15	10.15	0.000	63	43	1655.105	427.28	427.3	98	
56	56 toluene	11.23	11.23	0.000	91	92	2291.459	38.88	38.9	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-040.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:54 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:38 2003
Print Time : Mon Jan 13 10:44 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4994

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.37	11.37	0.000	69	99	512.644	46.85	46.8	99	
93	93 2-Hexanone x5	11.48	11.49	-0.001	43	58	831.419	252.62	252.6	99	
48	48 112-tri-Cl-Et	11.04	11.03	0.000	97	83	347.876	44.36	44.4	94	
58	58 1,2-di-br-ethane	11.84	11.83	0.001	107	109	371.448	45.07	45.1	100	
51	51 di-Br-Cl-methane	11.58	11.57	0.000	129	127	489.254	42.14	42.1	100	
46	46 t-13-di-cl-propen	10.87	10.86	0.000	75	110	594.704	40.88	40.9	96	
105	105 1-Chlorohexane	12.64	12.64	0.000	55	93	719.249	45.24	45.2	99	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.53	10.52	0.000	43	58	303.184	59.45	59.4	96	
49	49 1,3-di-cl-propane	11.30	11.29	0.000	76	78	604.220	39.64	39.6	100	
59	59 tetra-Cl-ethene	12.01	12.01	0.000	166	168	825.820	40.18	40.2	99	
60	60 chlorobenzene	12.71	12.70	0.000	112	77	1330.525	46.45	46.4	99	
61	61 1112-tetra-Cl-Et	12.63	12.63	0.000	131	133	562.377	41.15	41.1	100	?
64	64 ethylbenzene	12.90	12.91	0.000	91	106	2446.417	27.53	27.5	98	
65	65 m/p-Xylenes x2	13.10	13.11	0.000	91	106	3754.507	75.38	75.4	99	
99	99 1-4-di-Cl-butane	13.46	13.46	0.000	55	41	532.573	43.66	43.7	96	
52	52 bromoform	13.22	13.23	0.000	173	175	281.887	45.10	45.1	96	
66	66 styrene	13.43	13.43	0.000	104	78	1346.269	38.14	38.1	98	
67	67 o-xylene	13.50	13.50	0.000	91	106	1764.503	35.83	35.8	100	?
68	68 1122-Tetra-Cl-Et	13.51	13.50	0.000	83	85	326.262	52.90	52.9	100	?
110	110 t-1,4-dichloro-2	13.67	13.68	0.000	89	53	54.200	58.39	58.4	95	?
106	106 Cl-benzyl	15.13	15.13	0.000	91	126	457.227	45.37	45.4	99	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.65	13.64	0.000	110	97	89.331	41.64	41.6	94	?
71	71 isopropylbenzene	13.86	13.85	0.000	105	120	2372.165	40.96	41.0	99	
72	72 bromobenzene	14.11	14.10	0.000	156	158	554.412	43.62	43.6	98	
73	73 n-propylbenzene	14.29	14.28	0.000	120	78	643.879	39.27	39.3	98	
74	74 2-Cl-Tl 126 1	14.38	14.38	0.000	126	128	427.470	41.22	41.2	95	
75	75 4-Cl-Tl 126 1	14.45	14.45	0.000	126	128	594.245	51.42	51.4	98	m
76	76 135-tri-Me-Bz	14.57	14.56	0.000	105	120	1885.346	40.33	40.3	99	
79	79 tert-butylbenzene	14.84	14.84	0.000	119	91	1994.231	41.47	41.5	88	
78	78 124-tri-Me-Bz	14.94	14.94	0.000	105	120	1639.260	41.24	41.2	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

4/13/03

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-040.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 16:54 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:38 2003
Print Time : Mon Jan 13 10:44 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4995

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-di-Cl-Bz 146	15.13	15.12	0.000	146	148	844.281	34.55	34.6	94	?
82	82	14-di-Cl-Bz 146	15.19	15.18	0.000	146	148	1193.857	43.33	43.3	92	
81	81	sec-butylbenzene	15.05	15.05	0.000	105	134	2859.247	46.03	46.0	96	
77	77	4-iso-Pr-toluene	15.22	15.22	0.000	119	134	2064.029	40.76	40.8	99	
84	84	12-di-Cl-benzene	15.54	15.53	0.000	146	148	812.246	41.57	41.6	97	
85	85	n-butylbenzene	15.61	15.61	0.000	91	134	2099.124	46.47	46.5	99	
86	86	12-diBr-3-Cl-Pra	15.99	16.00	0.000	157	155	62.914	43.94	43.9	93	
87	87	124-tri-Cl-Bz	17.27	17.26	0.000	180	182	604.462	43.31	43.3	100	
88	88	naphthalene	17.50	17.50	0.000	128	129	459.400	63.75	63.7	100	
90	90	123-tri-Cl-Bz	17.69	17.69	0.000	180	182	448.256	48.03	48.0	98	
89	89	hx-Cl-butadiene	17.55	17.53	0.001	225	260	466.707	44.65	44.6	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

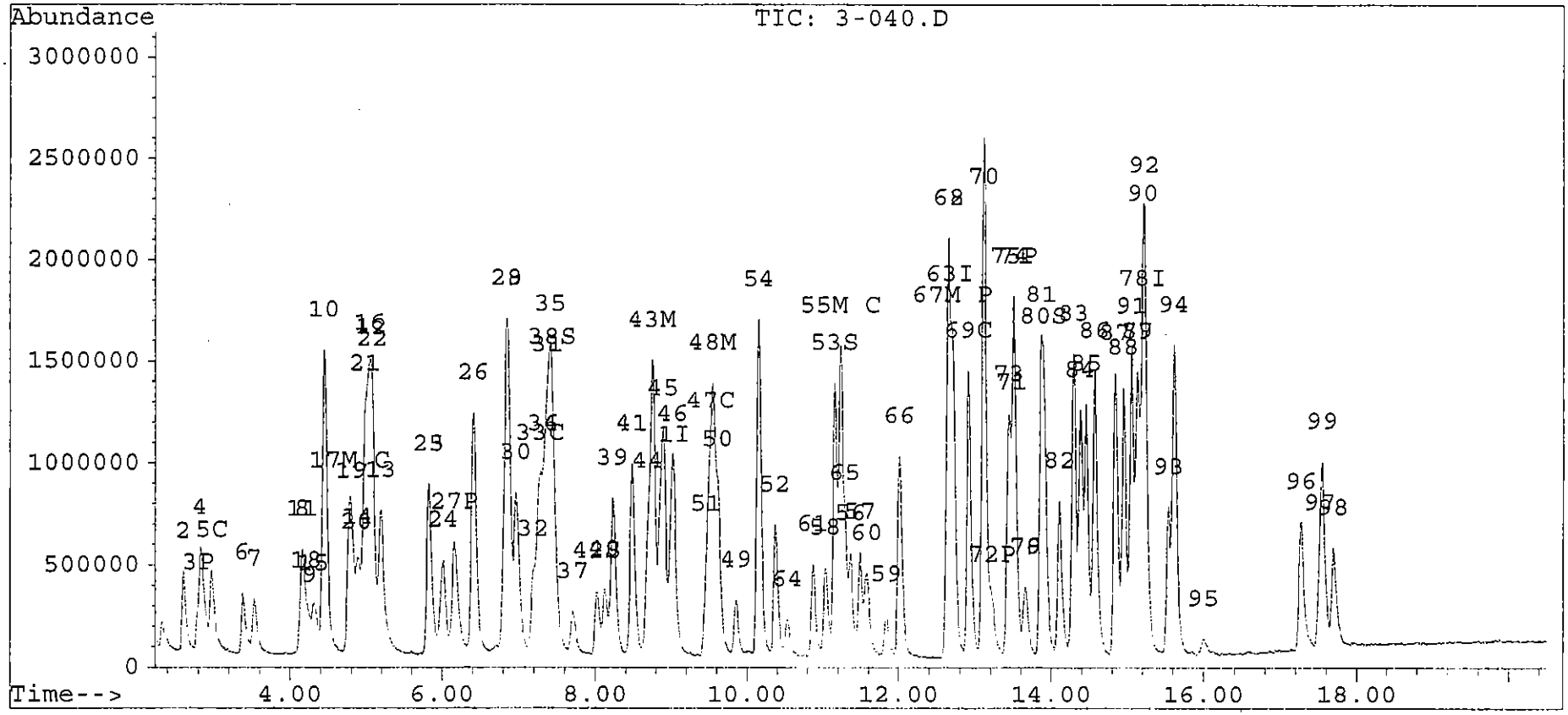
Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G1044\3-040.D
Acq On : 10 Jan 03 4:54 pm
Sample : f=1
Misc :
Quant Time: Jan 13 9:38 2003

Vial: 5
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

4996

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-080.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 17:23 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:39 2003
Print Time : Mon Jan 13 10:45 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4997

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.04	9.04	0.000	96	70	703.721	10.00		0.00	
47	47 Cl-benzene-d5, I2	12.67	12.66	0.000	82	119	241.678	10.00		0.01	
62	62 1,4-DCB-d4 150 15	15.18	15.16	0.002	152	150	164.785	10.00		0.02	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.44	7.44	0.000	111	113	1963.588	69.75	69.8	348.75%	
29	29 1,2-di-Cl-ethane-	8.02	8.03	0.000	65	102	894.560	59.33	59.3	296.64%	
55	55 toluene-d8(S2)	11.16	11.15	0.000	100	99	2774.904	71.95	71.9	359.74%	
70	70 4-Br-1-F-Bz (S3)	13.91	13.90	0.000	174	95	1159.540	69.60	69.6	348.02%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	1551.879	71.55	71.6	99	
4	4 Chloromethane	2.78	2.79	-0.002	50	52	1514.667	88.45	88.5	97	
9	9 F114 85 135	2.83	2.84	-0.002	85	135	1714.061	76.15	76.2	97	
5	5 vinyl chloride	2.96	2.97	0.000	62	64	1258.237	77.49	77.5	99	
6	6 bromomethane	3.38	3.38	0.000	94	96	1116.110	70.72	70.7	96	
7	7 Chloroethane	3.52	3.54	-0.002	64	66	952.606	79.23	79.2	100	
8	8 tri-Cl-F-methane	4.15	4.16	0.000	101	103	2238.212	82.90	82.9	100	?
111	111 isopropyl alcoho	4.27	4.28	0.000	45	43	244.204	857.50	857.5	59	#
100	100 ethyl ether x5	4.44	4.45	-0.001	59	74	3742.221	373.10	373.1	100	
102	102 Acrolein x10	4.17	4.17	0.000	56	55	601.157	751.24	751.2	90	?
119	119 methyl acetate	5.07	5.07	0.000	43	74	696.519	151.37	151.4	95	?
104	104 Carbon disulfide	5.18	5.19	0.000	76	78	4372.134	73.88	73.9	100	
103	103 Acrylonitrilex10	4.90	4.91	0.000	53	52	1341.637	795.03	795.0	98	?
95	95 Acetone x10	4.32	4.33	0.000	43	58	912.905	673.49	673.5	97	
108	108 F-113	5.03	5.05	-0.002	151	101	1749.444	93.05	93.0	100	
13	13 11-dichloroethene	4.78	4.78	0.000	61	96	2146.767	77.56	77.6	99	
101	101 Acetonnitrilex10	4.21	4.22	0.000	41	40	353.648	978.88	978.9	83	#
109	109 Iodomethane	4.81	4.82	-0.001	142	127	1666.625	75.80	75.8	99	
113	113 Tert butyl alcoh	4.87	4.87	0.000	59	57	485.913	772.60	772.6	85	#?

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Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-080.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 17:23 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:39 2003
Print Time : Mon Jan 13 10:45 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4998

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.98	4.98	0.000	84	49	1493.871	46.91	46.9	100	
	112 Allyl chloride	5.08	5.08	0.000	41	76	2056.270	82.74	82.7	98	?
200	200 Nitro methane x1	5.82	5.83	0.000	61	46	2385.881	777.09	777.1	99	?
10	10 t-Bu-Me-ether	6.01	6.01	0.000	73	57	2415.631	69.73	69.7	98	
19	19 t-12-di-Cl-ethene	5.82	5.82	0.000	96	61	1629.626	76.99	77.0	98	?
98	98 Vinyl acetate x5	6.40	6.41	0.000	43	86	6984.572	362.07	362.1	100	
21	21 11-dichloroethane	6.16	6.16	0.000	63	83	2853.804	77.14	77.1	98	
91	91 2-butanone MEKx10	6.84	6.84	0.000	43	72	5159.574	936.67	936.7	98	?
115	115 Di isoprop ether	6.85	6.85	0.000	45	87	7414.434	92.88	92.9	100	?
22	22 c-12-di-Cl-ethene	6.98	6.97	0.000	96	61	1613.152	77.88	77.9	99	
23	23 22-Dichloropropan	7.36	7.35	0.000	77	97	2269.373	71.18	71.2	100	
24	24 Br-Cl-methane	7.19	7.19	0.000	128	130	593.248	89.34	89.3	100	
25	25 chloroform	7.27	7.27	0.000	83	85	2739.754	91.67	91.7	100	
201	201 Ethyl acetate x2	7.32	7.31	0.000	43	61	1526.995	157.60	157.6	87	?
116	116 ETBE	7.41	7.40	0.000	59	87	4329.036	76.24	76.2	99	
117	117 Iso-butyl alcoho	7.32	7.31	0.000	43	42	1546.333	872.13	872.1	70	#?
26	26 tetrahydrofuranx5	7.71	7.71	0.000	72	42	287.877	399.18	399.2	97	
34	34 111-tri-Cl-ethane	8.24	8.23	0.000	97	99	2324.189	75.51	75.5	99	
30	30 12-dichloroethane	8.13	8.13	0.000	62	64	1155.412	93.96	94.0	99	
35	35 11-Di-Cl-propene	8.48	8.48	0.000	75	110	2099.663	78.07	78.1	99	
36	36 benzene	8.75	8.76	-0.001	78	52	4710.056	76.99	77.0	100	
37	37 CCl4	8.69	8.69	0.000	117	119	1852.391	78.63	78.6	100	
97	97 thiophene	8.89	8.89	0.000	84	58	2337.761	76.68	76.7	98	
118	118 TAME	9.01	9.01	0.000	73	43	3045.504	78.09	78.1	100	
39	39 12-di-Cl-propane	9.50	9.50	0.000	63	76	1426.638	79.70	79.7	100	
40	40 trichloroethene	9.55	9.55	0.000	130	132	1515.012	79.96	80.0	99	
96	96 Me-methacrylate	9.85	9.85	0.000	69	100	519.513	77.36	77.4	98	
42	42 Br-di-Cl-methane	9.61	9.62	0.000	83	85	1823.535	90.81	90.8	99	
41	41 dibromomethane	9.46	9.45	0.000	174	172	714.384	82.76	82.8	98	
45	45 c-13-di-Cl-propen	10.38	10.37	0.000	75	110	1727.952	78.47	78.5	100	
92	92 2-ClEt-Vi-ether10	10.16	10.15	0.000	63	43	3234.891	855.88	855.9	97	
56	56 toluene	11.23	11.23	0.000	91	92	4425.814	76.96	77.0	98	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-080.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 17:23 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:39 2003
Print Time : Mon Jan 13 10:45 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

4999

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.37	11.37	0.000	69	99	828.103	77.56	77.6	98	
93	93 2-Hexanone x5	11.49	11.49	0.000	43	58	1601.350	498.66	498.7	98	
48	48 112-tri-Cl-Et	11.04	11.03	0.000	97	83	664.699	86.86	86.9	92	
58	58 1,2-di-br-ethane	11.83	11.83	0.000	107	109	723.238	89.94	89.9	100	
51	51 di-Br-Cl-methane	11.57	11.57	0.000	129	127	967.601	85.41	85.4	99	
46	46 t-13-di-cl-propen	10.88	10.86	0.001	75	110	1109.294	78.14	78.1	96	
105	105 1-Chlorohexane	12.65	12.64	0.001	55	93	1336.615	86.16	86.2	99	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.53	10.52	0.000	43	58	587.112	111.24	111.2	97	
49	49 1,3-di-cl-propane	11.30	11.29	0.001	76	78	1155.285	73.25	73.2	99	
59	59 tetra-Cl-ethene	12.01	12.01	0.000	166	168	1643.233	77.26	77.3	99	
60	60 chlorobenzene	12.70	12.70	0.000	112	77	2470.738	83.34	83.3	99	
61	61 1112-tetra-Cl-Et	12.64	12.63	0.000	131	133	1108.773	78.39	78.4	99	?
64	64 ethylbenzene	12.91	12.91	0.000	91	106	4804.958	52.25	52.3	97	
65	65 m/p-Xylenes x2	13.11	13.11	0.000	91	106	7222.435	140.12	140.1	99	
99	99 1-4-di-Cl-butane	13.47	13.46	0.001	55	41	1001.628	79.35	79.3	98	
52	52 bromoform	13.24	13.23	0.000	173	175	544.898	84.24	84.2	95	
66	66 styrene	13.44	13.43	0.000	104	78	2563.056	70.16	70.2	100	
67	67 o-xylene	13.51	13.50	0.001	91	106	3287.299	64.50	64.5	100	?
68	68 1122-Tetra-Cl-Et	13.51	13.50	0.000	83	85	625.224	97.95	98.0	98	?
110	110 t-1,4-dichloro-2	13.68	13.68	0.000	89	53	103.110	107.34	107.3	94	?
106	106 Cl-benzyl	15.14	15.13	0.001	91	126	866.531	83.08	83.1	99	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.65	13.64	0.000	110	97	172.722	86.09	86.1	95	?
71	71 isopropylbenzene	13.87	13.85	0.001	105	120	4528.346	83.61	83.6	99	
72	72 bromobenzene	14.11	14.10	0.000	156	158	1030.644	86.70	86.7	98	
73	73 n-propylbenzene	14.30	14.28	0.001	120	78	1212.584	79.08	79.1	97	
74	74 2-Cl-Tl 126 1	14.39	14.38	0.000	126	128	745.993	76.92	76.9	99	
75	75 4-Cl-Tl 126 1	14.46	14.45	0.000	126	128	1075.809	99.53	99.5	92	
76	76 135-tri-Me-Bz	14.58	14.56	0.001	105	120	3580.223	81.88	81.9	99	
79	79 tert-butylbenzene	14.85	14.84	0.000	119	91	3739.615	83.15	83.2	99	
78	78 124-tri-Me-Bz	14.96	14.94	0.001	105	120	3054.447	82.17	82.2	99	

m 1/13/03

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G1044\3-080.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 17:23 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Jan 13 09:39 2003
Print Time : Mon Jan 13 10:45 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

5000

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-di-Cl-Bz 146	15.14	15.12	0.002	146	148	1658.291	72.57	72.6	95	?
82	82	14-di-Cl-Bz 146	15.20	15.18	0.001	146	148	2207.723	85.68	85.7	93	
81	81	sec-butylbenzene	15.06	15.05	0.000	105	134	5499.576	94.67	94.7	96	
77	77	4-iso-Pr-toluene	15.23	15.22	0.001	119	134	3804.782	80.34	80.3	100	
84	84	12-di-Cl-benzene	15.54	15.53	0.000	146	148	1524.040	83.41	83.4	99	
85	85	n-butylbenzene	15.61	15.61	0.000	91	134	3991.637	94.49	94.5	99	
86	86	12-diBr-3-Cl-Pra	15.99	16.00	0.000	157	155	120.318	89.86	89.9	91	
87	87	124-tri-Cl-Bz	17.26	17.26	0.000	180	182	1187.497	90.98	91.0	100	
88	88	naphthalene	17.50	17.50	0.000	128	129	922.945	136.94	136.9	100	
90	90	123-tri-Cl-Bz	17.69	17.69	0.000	180	182	845.940	96.93	96.9	100	
89	89	hx-Cl-butadiene	17.54	17.53	0.000	225	260	859.594	87.93	87.9	98	

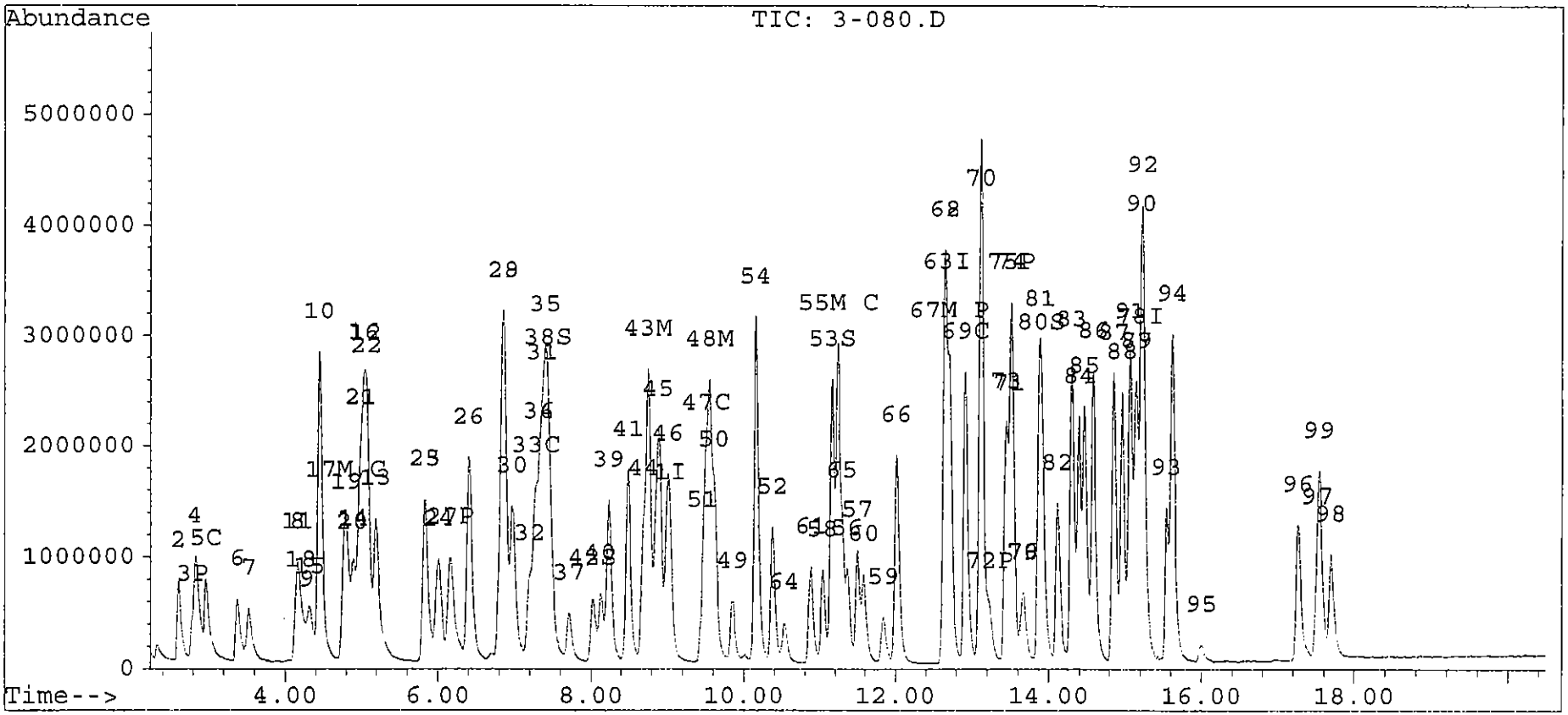
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G1044\3-080.D
Acq On : 10 Jan 03 5:23 pm
Sample : f=1
Misc :
Quant Time: Jan 13 9:39 2003

Vial: 6
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



Data Filename: C:\HPCHEM\1\DATA\03G1044\G1044Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 18:50 2003
Method Update: Mon Jan 13 09:57 2003
Quant. Time : Jan 13 10:36 2003
Print Time : Mon Jan 13 10:37 2003
Miscleneous :

Sample : f=1 ccv/icv
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

5002

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.03	9.04	0.000	96	70	796.616	10.00		0.00	
47	47 Cl-benzene-d5, I2	12.66	12.66	0.000	82	119	235.344	10.00		0.00	
62	62 1,4-DCB-d4 150 15	15.15	15.16	0.000	152	150	194.845	10.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.44	7.44	0.000	111	113	491.970	17.40	17.4	87.02%	
29	29 1,2-di-Cl-ethane-	8.02	8.03	0.000	65	102	225.901	17.16	17.2	85.82%	
55	55 toluene-d8(S2)	11.15	11.15	0.000	100	99	697.975	17.54	17.5	87.70%	
70	70 4-Br-1-F-Bz (S3)	13.90	13.90	0.000	174	95	306.029	17.58	17.6	87.89%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	391.713	17.19	17.2	100	
4	4 Chloromethane	2.78	2.79	-0.002	50	52	347.170	17.91	17.9	98	
9	9 F114 85 135	2.83	2.84	-0.002	85	135	431.287	16.95	17.0	97	
5	5 vinyl chloride	2.96	2.97	-0.001	62	64	324.322	17.64	17.6	99	
6	6 bromomethane	3.37	3.38	-0.001	94	96	311.034	19.27	19.3	94	
7	7 Chloroethane	3.52	3.54	-0.003	64	66	236.890	17.40	17.4	99	
8	8 tri-Cl-F-methane	4.14	4.16	-0.002	101	103	548.800	17.66	17.7	99	?
111	111 isopropyl alcoho	4.27	4.28	-0.001	45	43	67.350	187.37	187.4	47	#
100	100 ethyl ether x5	4.44	4.45	-0.002	59	74	929.231	81.84	81.8	100	
102	102 Acrolein x10	4.15	4.17	-0.002	56	55	135.563	149.65	149.7	99	?
119	119 methyl acetate	5.06	5.07	-0.002	43	74	161.424	16.58	16.6	99	?
104	104 Carbon disulfide	5.18	5.19	-0.001	76	78	1078.389	16.24	16.2	99	
103	103 Acrylonitrilex10	4.89	4.91	-0.002	53	52	330.493	173.63	173.6	99	?
95	95 Acetone x10	4.31	4.33	-0.002	43	58	230.352	167.58	167.6	96	
108	108 F-113	5.02	5.05	-0.003	151	101	423.314	17.73	17.7	98	
13	13 11-dichloroethene	4.76	4.78	-0.002	61	96	530.128	16.97	17.0	99	
101	101 Acetonnitrilex10	4.20	4.22	-0.002	41	40	91.752	179.80	179.8	80	#
109	109 Iodomethane	4.80	4.82	-0.002	142	127	536.517	21.14	21.1	99	
113	113 Tert butyl alcoh	4.86	4.87	0.000	59	57	116.507	169.00	169.0	100	?

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Data Filename: C:\HPCHEM\1\DATA\03G1044\G1044Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 18:50 2003
Method Update: Mon Jan 13 09:57 2003
Quant. Time : Jan 13 10:36 2003
Print Time : Mon Jan 13 10:37 2003
Miscleneous :

Sample : f=1 ccv/icv
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

5003

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	4.97	4.98	-0.001	84	49	397.006	11.83	11.8	100	
	112 Allyl chloride	5.07	5.08	-0.001	41	76	588.305	17.03	17.0	97	?
200	200 Nitro methane x1	5.82	5.83	-0.001	61	46	610.779	175.74	175.7	95	#?
10	10 t-Bu-Me-ether	6.00	6.01	-0.001	73	57	557.717	16.56	16.6	96	
19	19 t-12-di-Cl-ethene	5.82	5.82	0.000	96	61	406.048	16.96	17.0	95	?
98	98 Vinyl acetate x5	6.41	6.41	0.000	43	86	1965.632	91.24	91.2	100	
21	21 11-dichloroethane	6.15	6.16	-0.001	63	83	750.915	17.96	18.0	99	
91	91 2-butanone MEKx10	6.83	6.84	-0.001	43	72	1231.875	164.89	164.9	97	?
115	115 Di isoprop ether	6.85	6.85	0.000	45	87	1808.509	17.14	17.1	99	?
22	22 c-12-di-Cl-ethene	6.97	6.97	0.000	96	61	395.661	16.89	16.9	97	
23	23 22-Dichloropropan	7.35	7.35	0.000	77	97	576.991	15.99	16.0	99	
24	24 Br-Cl-methane	7.18	7.19	-0.001	128	130	141.700	16.86	16.9	99	
25	25 chloroform	7.27	7.27	0.000	83	85	689.236	16.48	16.5	100	
201	201 Ethyl acetate x2	7.31	7.31	0.000	43	61	378.636	35.55	35.6	90	?
116	116 ETBE	7.40	7.40	0.000	59	87	1052.083	16.37	16.4	100	
117	117 Iso-butyl alcoho	7.31	7.31	0.000	43	42	392.518	184.17	184.2	64	#?
26	26 tetrahydrofuranx5	7.71	7.71	0.000	72	42	69.559	85.20	85.2	99	
34	34 111-tri-Cl-ethane	8.23	8.23	0.000	97	99	564.989	16.22	16.2	100	
30	30 12-dichloroethane	8.13	8.13	0.000	62	64	282.242	17.32	17.3	99	
35	35 11-Di-Cl-propene	8.48	8.48	0.000	75	110	497.493	16.34	16.3	100	
36	36 benzene	8.75	8.76	-0.001	78	52	1199.382	17.33	17.3	100	
37	37 CCl4	8.68	8.69	0.000	117	119	455.994	17.10	17.1	99	
97	97 thiophene	8.89	8.89	0.000	84	58	583.305	16.95	16.9	99	
118	118 TAME	9.00	9.01	0.000	73	43	702.458	15.87	15.9	100	
39	39 12-di-Cl-propane	9.49	9.50	0.000	63	76	351.243	17.34	17.3	99	
40	40 trichloroethene	9.54	9.55	-0.001	130	132	377.871	17.62	17.6	98	
96	96 Me-methacrylate	9.85	9.85	0.000	69	100	125.425	17.85	17.8	98	
42	42 Br-di-Cl-methane	9.61	9.62	0.000	83	85	450.244	15.94	15.9	96	
41	41 dibromomethane	9.45	9.45	0.000	174	172	180.293	18.45	18.5	98	
45	45 c-13-di-Cl-propen	10.37	10.37	0.000	75	110	412.841	16.57	16.6	99	
92	92 2-ClEt-Vi-ether10	10.15	10.15	0.000	63	43	750.880	175.75	175.8	99	
56	56 toluene	11.23	11.23	0.000	91	92	1093.591	16.81	16.8	98	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Data Filename: C:\HPCHEM\1\DATA\03G1044\G1044Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 18:50 2003
Method Update: Mon Jan 13 09:57 2003
Quant. Time : Jan 13 10:36 2003
Print Time : Mon Jan 13 10:37 2003
Miscleneous :

Sample : f=1 ccv/icv
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

5004

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.36	11.37	0.000	69	99	232.775	17.29	17.3	100	
93	93 2-Hexanone x5	11.48	11.49	-0.001	43	58	392.829	86.81	86.8	97	
48	48 112-tri-Cl-Et	11.03	11.03	0.000	97	83	161.722	16.95	17.0	98	
58	58 1,2-di-br-ethane	11.82	11.83	0.000	107	109	172.988	16.98	17.0	98	
51	51 di-Br-Cl-methane	11.57	11.57	0.000	129	127	224.132	17.48	17.5	99	
46	46 t-13-di-cl-propen	10.87	10.86	0.000	75	110	282.573	17.60	17.6	100	
105	105 1-Chlorohexane	12.64	12.64	0.000	55	93	359.945	18.07	18.1	96	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.52	10.52	0.000	43	58	140.136	18.90	18.9	97	
49	49 1,3-di-cl-propane	11.29	11.29	0.000	76	78	281.641	18.31	18.3	100	
59	59 tetra-Cl-ethene	12.00	12.01	0.000	166	168	377.073	18.21	18.2	100	
60	60 chlorobenzene	12.70	12.70	0.000	112	77	623.775	18.14	18.1	99	
61	61 1112-tetra-Cl-Et	12.62	12.63	0.000	131	133	260.584	18.92	18.9	100	?
64	64 ethylbenzene	12.90	12.91	0.000	91	106	1145.522	17.29	17.3	99	
65	65 m/p-Xylenes x2	13.10	13.11	0.000	91	106	1801.521	35.76	35.8	100	
99	99 1-4-di-Cl-butane	13.46	13.46	0.000	55	41	249.550	16.44	16.4	98	
52	52 bromoform	13.22	13.23	0.000	173	175	130.519	18.57	18.6	98	
66	66 styrene	13.43	13.43	0.000	104	78	627.907	17.65	17.7	98	
67	67 o-xylene	13.50	13.50	0.000	91	106	854.318	17.23	17.2	100	?
68	68 1122-Tetra-Cl-Et	13.51	13.50	0.000	83	85	157.341	17.29	17.3	97	?
110	110 t-1,4-dichloro-2	13.67	13.68	0.000	89	53	29.653	20.23	20.2	82	#?
106	106 Cl-benzyl	15.12	15.13	0.000	91	126	217.674	18.94	18.9	99	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.64	13.64	0.000	110	97	40.148	16.92	16.9	97	?
71	71 isopropylbenzene	13.86	13.85	0.000	105	120	1123.964	17.55	17.6	99	
72	72 bromobenzene	14.10	14.10	0.000	156	158	256.336	18.24	18.2	98	
73	73 n-propylbenzene	14.29	14.28	0.000	120	78	307.368	17.81	17.8	100	
74	74 2-Cl-Tl 126 1	14.37	14.38	0.000	126	128	196.033	17.09	17.1	94	
75	75 4-Cl-Tl 126 1	14.45	14.45	0.000	126	128	271.926	17.35	17.3	99	
76	76 135-tri-Me-Bz	14.57	14.56	0.000	105	120	876.887	16.96	17.0	99	
79	79 tert-butylbenzene	14.84	14.84	0.000	119	91	953.072	17.96	18.0	87	
78	78 124-tri-Me-Bz	14.94	14.94	0.000	105	120	768.449	17.48	17.5	99	

m 1/13/03

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Data Filename: C:\HPCHEM\1\DATA\03G1044\G1044Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Jan 10 18:50 2003
Method Update: Mon Jan 13 09:57 2003
Quant. Time : Jan 13 10:36 2003
Print Time : Mon Jan 13 10:37 2003
Miscleneous :

Sample : f=1 ccv/icv
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

5005

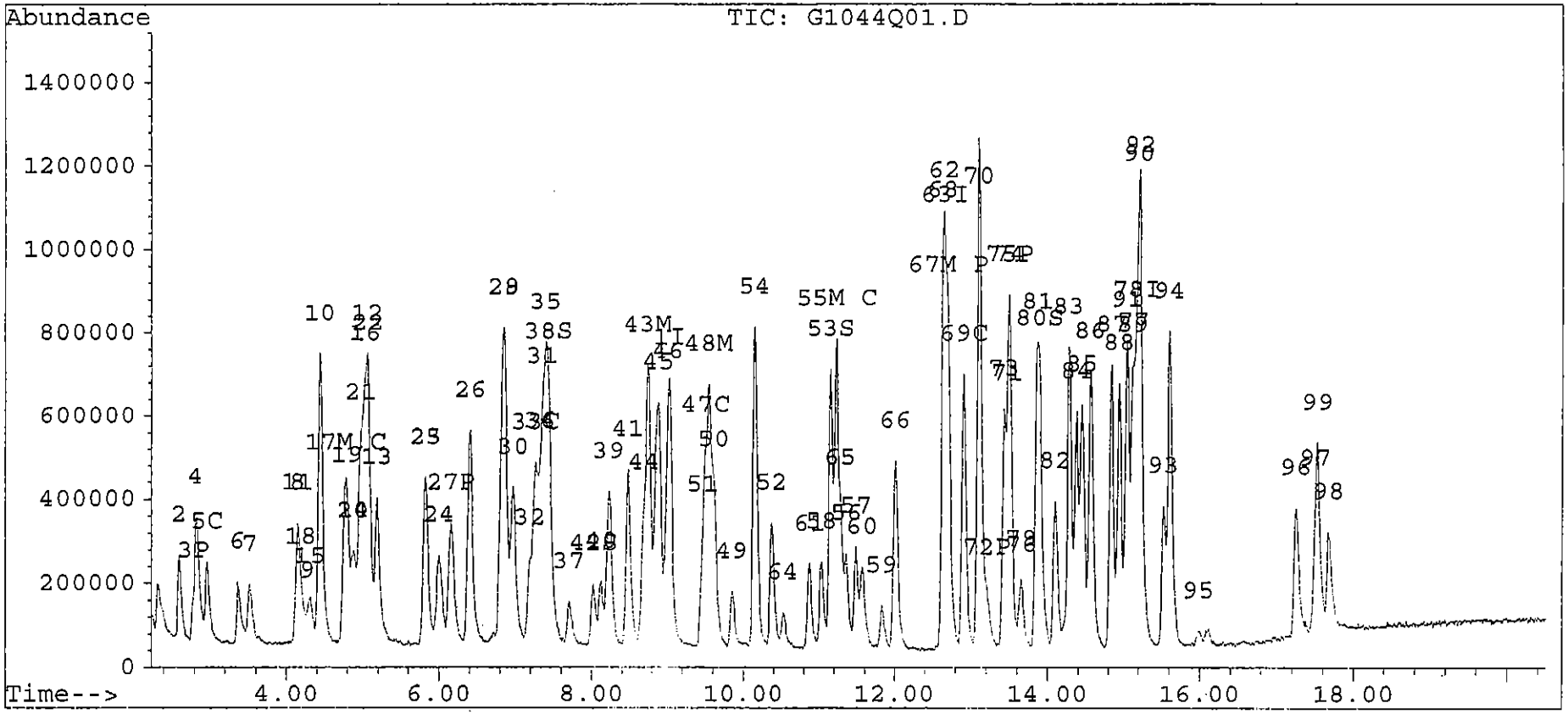
ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80 13-di-Cl-Bz 146	15.11	15.12	0.000	146	148	402.440	17.97	18.0	90	?
82	82 14-di-Cl-Bz 146	15.19	15.18	0.000	146	148	541.239	16.63	16.6	93	
81	81 sec-butylbenzene	15.04	15.05	0.000	105	134	1390.850	17.92	17.9	98	
77	77 4-iso-Pr-toluene	15.22	15.22	0.000	119	134	1009.580	18.03	18.0	98	
84	84 12-di-Cl-benzene	15.52	15.53	0.000	146	148	377.204	17.46	17.5	99	
85	85 n-butylbenzene	15.60	15.61	0.000	91	134	1017.452	17.34	17.3	100	
86	86 12-diBr-3-Cl-Pra	15.97	16.00	-0.001	157	155	28.653	18.10	18.1	87	
87	87 124-tri-Cl-Bz	17.24	17.26	0.000	180	182	286.395	16.93	16.9	99	
88	88 naphthalene	17.49	17.50	0.000	128	129	236.255	18.23	18.2	100	
90	90 123-tri-Cl-Bz	17.68	17.69	0.000	180	182	211.274	17.95	17.9	100	
89	89 hx-Cl-butadiene	17.52	17.53	0.000	225	260	228.481	17.77	17.8	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Data File : C:\HPCHEM\1\DATA\03G1044\G1044Q01.D Vial: 9
Acq On : 10 Jan 03 6:50 pm Operator: Eddie
Sample : f=1 ccv/icv Inst : GCMS-G
Misc : Multiplr: 1.00
Quant Time: Jan 13 10:36 2003 Quant Results File: quant.res

5006

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 09:57:17 2003
Response via : Multiple Level Calibration



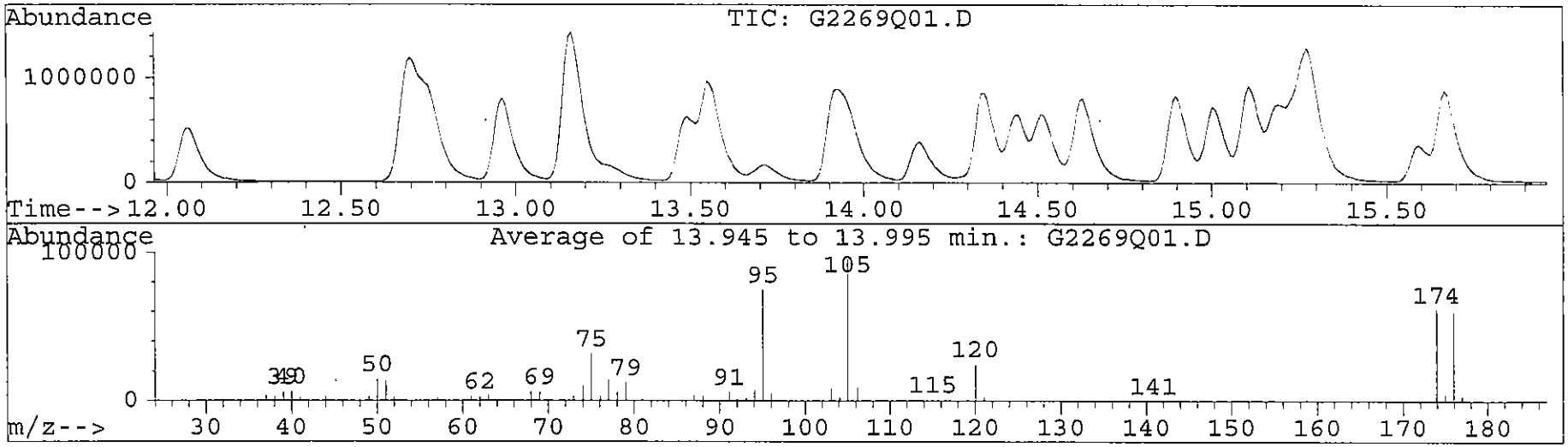
5007

BFB

Data File : C:\HPCHEM\1\DATA\03G2269\G2269Q01.D
Acq On : 30 Apr 03 5:40 pm
Sample : f=1
Misc :

Vial: 17
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2



Peak Apex is scan: 1443

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.6	14722	PASS
75	95	30	60	42.3	31794	PASS
95	95	100	100	100.0	75222	PASS
96	95	5	9	6.7	5047	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	82.8	62279	PASS
175	174	5	9	7.5	4689	PASS
176	174	95	101	96.3	60000	PASS
177	176	5	9	6.8	4089	PASS

G2269Q01.D E524G003.M Thu May 01 11:29:45 2003

FORM-5A

Applied P & Ch Laboratory

Volatile Organic Instrument Performance Check for Method 524.2

Bromofluorobenzene (BFB), Part II

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	032964
Project ID:	JPL	BFB Inj. Date:	04/30/03	Batch No:	03G2269
		BFB Inj. Time:	17:40	Sequence No:	03G2269
Project No:	04-4428.10	Instrument ID:	G	GC Column:	DB-VEX
Data File Name:	G2269Q01	Heated Purge: (Y/N)	N	Column ID:	0.45 mm

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

#	Client Sample No	Lab Sample ID	Data File Name	Date Analyzed	Time Analyzed
1	03G2269-CCV-01	03G2269-CCV-01	G2269Q01	04/30/03	17:40
2	03G2269-LCS-01	03G2269-LCS-01	G2269L01	04/30/03	18:09
3	MW-17-2MS	03-2933-3MS	G2269M01	04/30/03	18:38
4	MW-17-2MSD	03-2933-3MSD	G2269N01	04/30/03	19:08
5	03G2269-MB-01	03G2269-MB-01	G2269K02	04/30/03	21:03
6	DUPE-4-2Q03	03-2964-1	2964-01	05/01/03	00:53
7	EB-7-4/29/03	03-2964-2	2964-02	05/01/03	01:21
8	MW-24-1	03-2964-3	2964-03	05/01/03	01:50
9	MW-24-2	03-2964-4	2964-04	05/01/03	02:19
10	MW-24-3	03-2964-5	2964-05	05/01/03	02:48
11	MW-24-4	03-2964-6	2964-06	05/01/03	03:17
12	MW-24-5	03-2964-7	2964-07	05/01/03	03:46
13	TB-7-4/29/03	03-2964-8	2964-08	05/01/03	04:15
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

Evaluate Continuing Calibration Report

5009

Data File : C:\HPCHEM\1\DATA\03G2269\G2269Q01.D Vial: 17
Acq On : 30 Apr 03 5:40 pm Operator: Eddie
Sample : f=1 Inst : GCMS-G
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 35% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1 Fluorobenzene I1 1	1.000	1.000	0.0	103	0.00
2		3 di-Cl-di-F-methane 85 8	0.308	0.255	17.3	91	0.00
3	P	4 Chloromethane 50 5	0.243	0.207	15.1	84	0.00
4		9 F114 85 135	0.319	0.329	-3.0	108	0.00
5	C	5 vinyl chloride 62 6	0.231	0.210	9.2	93	0.00
6		6 bromomethane 94 9	0.227	0.195	14.2	106	0.00
7		7 Chloroethane 64 66	0.171	0.166	3.1	101	0.00
8		8 tri-Cl-F-methane 101 10	0.390	0.412	-5.7	103	0.00
9		111 isopropyl alcohol x10	0.005	0.004#	12.3	109	0.00
10		100 ethyl ether x5	0.143	0.115	19.2	89	0.00
11		102 Acrolein x10	0.011	0.012#	-1.7	82	0.00
12		119 methyl acetate	0.128	0.104	18.4	85	0.00
13		104 Carbon disulfide	0.834	0.651	21.9#	85	0.00
14		103 Acrylonitrilex10	0.024	0.020#	14.3	89	0.00
15		95 Acetone x10	0.019	0.017#	8.9	98	0.00
16		108 F-113	0.300	0.346	-15.4	110	0.00
17	M,C	13 11-dichloroethene 61 9	0.392	0.380	3.1	101	0.00
18		101 Acetonnitrilex10	0.006	0.000#	95.5#	4#	0.00
19		109 Iodomethane	0.311	0.352	-13.3	113	0.00
20		113 Tert butyl alcohol x10	0.009	0.008#	16.1	88	0.00
21		18 methylene chloride 49 8	0.643	0.381	40.7#	96	0.00
22		112 Allyl chloride	0.434	0.407	6.1	101	0.00
23		200 Nitro methane x10	0.044	0.040#	8.2	96	0.00
24		10 t-Bu-Me-ether 73 57	0.498	0.387	22.1#	95	0.00
25		19 t-12-di-Cl-ethene 96 6	0.301	0.274	8.8	95	0.00
26		98 Vinyl acetate x5	0.270	0.239	11.5	157#	0.00
27	P	21 11-dichloroethane 63 8	0.525	0.543	-3.5	106	0.00

(#) = Out of Range

5010

Data File : C:\HPCHEM\1\DATA\03G2269\G2269Q01.D Vial: 17
Acq On : 30 Apr 03 5:40 pm Operator: Eddie
Sample : f=1 Inst : GCMS-G
Misc : Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 35% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
28		91 2-butanone MEKx10	0.094	0.080	14.3	94	0.00
29		115 Di isoprop ether	1.125	1.196	-6.3	93	0.00
30		22 c-12-di-Cl-ethene 96 6	0.294	0.277	5.8	98	0.00
31		23 22-Dichloropropane 77 9	0.453	0.454	-0.2	112	0.00
32		24 Br-Cl-methane 128 13	0.094	0.092	2.3	91	0.00
33	C	25 chloroform 83 8	0.525	0.481	8.3	102	0.00
34		201 Ethyl acetate x2	0.134	0.119	11.3	122	0.00
35		116 ETBE	0.807	0.690	14.4	91	0.00
36		117 Iso-butyl alcohol X10	0.027	0.024#	9.6	124	0.00
37		26 tetrahydrofuranx5	0.010	0.009#	12.9	91	0.00
38	S	27 Di-Br-F-Methane (S1) 11	0.400	0.340	14.9	100	0.00
39		34 111-tri-Cl-ethane 97 9	0.437	0.427	2.4	108	0.00
40		30 12-dichloroethane 64 6	0.175	0.180	-3.2	92	0.00
41		35 11-Di-Cl-propene 75 11	0.382	0.385	-0.9	107	0.00
42	S	29 1,2-di-Cl-ethane-d4 [Sur	0.165	0.141	14.7	89	0.00
43	M	36 benzene 78 5	0.869	0.876	-0.8	105	0.00
44		37 CCl4 117 11	0.335	0.357	-6.6	110	0.00
45		97 thiophene	0.432	0.401	7.2	98	0.00
46		118 TAME	0.556	0.471	15.3	90	0.00
47	C	39 12-di-Cl-propane 63 7	0.254	0.242	5.0	98	0.00
48	M	40 trichloroethene 130 13	0.269	0.271	-0.7	102	0.00
49		96 Me-methacrylate	0.095	0.079	17.0	98	0.00
50		42 Br-di-Cl-methane 83 8	0.355	0.307	13.4	97	0.00
51		41 dibromomethane 174 17	0.123	0.117	4.9	91	0.00
52		45 c-13-di-Cl-propene 75 11	0.313	0.290	7.3	99	0.00
53	S	55 toluene-d8(S2) 100	0.500	0.505	-1.0	106	0.00
54		92 2-ClEt-Vi-ether10	0.054	0.019#	64.3#	36	0.00

(#) = Out of Range

5011

Data File : C:\HPCHEM\1\DATA\03G2269\G2269Q01.D
Acq On : 30 Apr 03 5:40 pm
Sample : f=1
Misc :

Vial: 17
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 35% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
55	M C	56 toluene 91 9	0.817	0.806	1.3	107	0.00
56		107 Et methacrylate	0.169	0.157	7.0	145	0.00
57		93 2-Hexanone x5	0.057	0.052	8.0	108	0.00
58		48 112-tri-Cl-Et 97 8	0.141	0.103	26.6#	91	0.00
59		58 1,2-di-br-ethane 107 109	0.114	0.112	2.3	89	0.00
60		51 di-Br-Cl-methane 129 12	0.161	0.147	8.7	92	0.00
61		46 t-13-di-cl-propene 75 11	0.202	0.187	7.3	94	0.00
62		105 1-Chlorohexane	0.310	0.277	10.8	113	0.00
63	I	47 Cl-benzene-d5, I2	1.000	1.000	0.0	99	0.00
64		54 MIBK	0.297	0.301	-1.5	93	0.00
65		49 1,3-di-cl-propane 76 78	0.654	0.637	2.6	92	0.00
66		59 tetra-Cl-ethene 166 16	0.880	0.986	-12.1	106	0.00
67	M P	60 chlorobenzene 112 7	1.461	1.603	-9.7	107	0.00
68		61 1112-tetra-Cl-Et 131 13	0.585	0.628	-7.3	99	0.00
69	C	64 ethylbenzene 91 10	2.816	3.096	-10.0	112	0.00
70		65 m/p-Xylenes x2	2.141	2.328	-8.7	109	0.00
71		99 1-4-di-Cl-butane	0.645	0.575	10.8	93	0.00
72	P	52 bromoform 173 17	0.274	0.292	-6.7	91	0.00
73		66 styrene 104 7	1.512	1.613	-6.7	106	0.00
74		67 o-xylene 91 10	2.106	2.272	-7.9	111	0.00
75	P	68 1122-Tetra-Cl-Et 83 8	0.387	0.364	5.9	94	0.00
76		110 t-1,4-dichloro-2-butene	0.081	0.069	14.4	114	0.00
77		106 Cl-benzyl	0.572	0.565	1.2	106	0.00
78	I	62 1,4-DCB-d4 150 152 I3	1.000	1.000	0.0	102	0.00
79		69 123-tri-Cl-Pr 110 9	0.122	0.109	10.6	90	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03G2269\G2269Q01.D
Acq On : 30 Apr 03 5:40 pm
Sample : f=1
Misc :

Vial: 17
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 35% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
80	S	70 4-Br-1-F-Bz (S3) 174 9	0.893	0.921	-3.1	106	0.00
81		71 isopropylbenzene 105 12	3.286	3.857	-17.4	119	0.00
82		72 bromobenzene 156 15	0.721	0.740	-2.5	97	0.00
83		73 n-propylbenzene 120 7	0.886	1.037	-17.1	116	0.00
84		74 2-Cl-Tl 126 128	0.589	0.606	-3.0	113	0.00
85		75 4-Cl-Tl 126 128	0.804	0.773	4.0	100	0.00
86		76 135-tri-Me-Bz 105 12	2.653	2.961	-11.6	115	0.00
87		79 tert-butylbenzene 119 9	2.724	3.089	-13.4	114	0.00
88		78 124-tri-Me-Bz 105 12	2.256	2.498	-10.7	111	0.00
89		80 13-di-Cl-Bz 146 148	1.149	1.104	4.0	104	0.00
90		82 14-di-Cl-Bz 146 148	1.670	1.730	-3.6	101	0.00
91		81 sec-butylbenzene 105 13	3.983	4.446	-11.6	114	0.00
92		77 4-iso-Pr-toluene 119 13	2.874	3.318	-15.5	115	0.00
93		84 12-di-Cl-benzene 146 14	1.109	1.043	6.0	95	0.00
94		85 n-butylbenzene 91 13	3.012	3.287	-9.1	113	0.00
95		86 12-diBr-3-Cl-Pra 157 15	0.081	0.073	10.1	87	0.00
96		87 124-tri-Cl-Bz 180 18	0.792	0.814	-2.8	95	0.00
97		88 naphthalene 128 12	0.665	0.571	14.1	87	0.00
98		90 123-tri-Cl-Bz 180 18	0.604	0.592	2.0	93	0.00
99		89 hx-Cl-butadiene 225 26	0.621	0.797	-28.4#	122	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Continuing Calibration Concentration Summary

Data File G2269Q01.D
Method File E524G003

Compound Name	Amount	Actual	Units	%Dev	Target Response
1 Fluorobenzene I1 1	10	10.00	ppb	0.00	761786
3 di-Cl-di-F-methane 85 87	20	17.84	ppb	10.82	388177
4 Chloromethane 50 52	20	16.98	ppb	15.10	314773
9 F114 85 135	20	20.61	ppb	3.04	501305
5 vinyl chloride 62 64	20	18.16	ppb	9.19	319243
6 bromomethane 94 96	20	19.26	ppb	3.68	297323
7 Chloroethane 64 66	20	19.38	ppb	3.10	252239
8 tri-Cl-F-methane 101 103	20	21.14	ppb	5.68	628206
111 isopropyl alcohol x10	200	175.40	ppb	12.30	60291
100 ethyl ether x5	100	80.76	ppb	19.24	876837
102 Acrolein x10	200	203.31	ppb	1.65	176116
119 methyl acetate	20	17.07	ppb	14.66	158971
104 Carbon disulfide	20	15.62	ppb	21.90	992000
103 Acrylonitrilex10	200	171.37	ppb	14.32	311929
95 Acetone x10	200	202.99	ppb	1.50	263169
108 F-113	20	23.08	ppb	15.41	527111
13 11-dichloroethene 61 96	20	19.38	ppb	3.09	578845
101 Acetonnitrilex10	200	6.47	ppb	96.76	4137
109 Iodomethane	20	22.19	ppb	10.97	536775
113 Tert butyl alcohol x10	200	178.57	ppb	10.72	117653
18 methylene chloride 49 84	20	19.35	ppb	3.27	581064
112 Allyl chloride	20	18.78	ppb	6.08	620506
200 Nitro methane x10	200	183.54	ppb	8.23	610000
10 t-Bu-Me-ether 73 57	20	18.30	ppb	8.48	590288
19 t-12-di-Cl-ethene 96 61	20	18.25	ppb	8.77	417743
98 Vinyl acetate x5	100	88.47	ppb	11.53	1822747
21 11-dichloroethane 63 83	20	20.70	ppb	3.52	827680
91 2-butanone MEKx10	200	171.45	ppb	14.27	1224926
115 Di isoprop ether	20	18.06	ppb	9.69	1822892
22 c-12-di-Cl-ethene 96 61	20	18.83	ppb	5.84	421869
23 22-Dichloropropane 77 97	20	20.04	ppb	0.18	691258
24 Br-Cl-methane 128 130	20	17.36	ppb	13.21	139523
25 chloroform 83 85	20	18.34	ppb	8.31	733492
201 Ethyl acetate x2	40	35.50	ppb	11.25	361550
116 ETBE	20	17.11	ppb	14.44	1051771
117 Iso-butyl alcohol X10	200	180.84	ppb	9.58	368565
26 tetrahydrofuranx5	100	87.15	ppb	12.85	68033
27 Di-Br-F-Methane (S1) 111 1	20	19.21	ppb	3.93	518608
34 111-tri-Cl-ethane 97 99	20	19.53	ppb	2.37	650600
30 12-dichloroethane 64 62	20	17.61	ppb	11.94	274524
35 11-Di-Cl-propene 75 110	20	20.17	ppb	0.86	587246
29 1,2-di-Cl-ethane-d4 [Surr] 10	20	17.06	ppb	14.70	214731
36 benzene 78 52	20	20.17	ppb	0.84	1335059
37 CCl4 117 119	20	21.31	ppb	6.56	543484

97 thiophene	20	18.57	ppb	7.16	611092
118 TAME	20	16.95	ppb	15.27	717138
39 12-di-Cl-propane 63 76	20	19.01	ppb	4.96	368246
40 trichloroethene 130 132	20	20.14	ppb	0.71	413159
96 Me-methacrylate	20	17.96	ppb	10.20	120737
42 Br-di-Cl-methane 83 85	20	17.33	ppb	13.37	468055
41 dibromomethane 174 172	20	19.01	ppb	4.94	177648
45 c-13-di-Cl-propene 75 110	20	18.54	ppb	7.29	441720
55 toluene-d8(S2) 100 99	20	20.20	ppb	1.02	768828
92 2-ClEt-Vi-ether10	200	71.42	ppb	64.29	291782

Compound Name	Amount	Actual	Units	%Dev	Target Response
56 toluene 91 92	20	19.73	ppb	1.33	1227802
107 Et methacrylate	20	18.60	ppb	6.98	239507
93 2-Hexanone x5	100	92.03	ppb	7.97	398233
48 112-tri-Cl-Et 97 83	20	17.24	ppb	13.79	157257
58 1,2-di-br-ethane 107 109	20	17.46	ppb	12.68	170146
51 di-Br-Cl-methane 129 127	20	18.25	ppb	8.73	223865
46 t-13-di-cl-propene 75 110	20	18.55	ppb	7.26	284786
105 1-Chlorohexane	20	22.36	ppb	11.78	421400
47 Cl-benzene-d5, I2	10	10.00	ppb	0.00	223184
54 MIBK	20	19.12	ppb	4.40	134404
49 1,3-di-cl-propane 76 78	20	19.48	ppb	2.59	284260
59 tetra-Cl-ethene 166 168	20	22.42	ppb	12.08	440272
60 chlorobenzene 112 77	20	21.94	ppb	9.70	715660
61 1112-tetra-Cl-Et 131 133	20	21.46	ppb	7.31	280352
64 ethylbenzene 91 106	20	21.99	ppb	9.95	1381912

Compound Name	Amount	Actual	Units	%Dev	Target Response
65 m/p-Xylenes x2	40	43.49	ppb	8.73	2077922
99 1-4-di-Cl-butane	20	17.83	ppb	10.83	256743
52 bromoform 173 175	20	19.63	ppb	1.86	130445
66 styrene 104 78	20	21.34	ppb	6.71	720039
67 o-xylene 91 106	20	21.58	ppb	7.88	1014307
68 1122-Tetra-Cl-Et 83 85	20	18.82	ppb	5.91	162432
110 t-1,4-dichloro-2-butene	20	22.58	ppb	12.90	30780
106 Cl-benzyl	20	23.54	ppb	17.69	252253
62 1,4-DCB-d4 150 152 I3	10	10.00	ppb	0.00	187712
69 123-tri-Cl-Pr 110 97	20	17.87	ppb	10.65	40845
70 4-Br-1-F-Bz (S3) 174 95	20	20.61	ppb	3.07	345743
71 isopropylbenzene 105 120	20	23.48	ppb	17.38	1448076
72 bromobenzene 156 158	20	20.51	ppb	2.54	277685
73 n-propylbenzene 120 78	20	23.42	ppb	17.12	389498
74 2-Cl-TI 126 128	20	20.60	ppb	2.98	227537
75 4-Cl-TI 126 128	20	19.21	ppb	3.96	290072
76 135-tri-Me-Bz 105 120	20	22.32	ppb	11.60	1111705
79 tert-butylbenzene 119 91	20	22.68	ppb	13.42	1159830
78 124-tri-Me-Bz 105 120	20	22.15	ppb	10.73	937730
80 13-di-Cl-Bz 146 148	20	19.21	ppb	3.97	414282
82 14-di-Cl-Bz 146 148	20	20.72	ppb	3.61	649550
81 sec-butylbenzene 105 134	20	22.32	ppb	11.61	1669005

77 4-iso-Pr-toluene 119 134	20	23.09	ppb	15.46	1245699
84 12-di-Cl-benzene 146 148	20	18.81	ppb	5.95	391500
85 n-butylbenzene 91 134	20	21.83	ppb	9.14	1233921
86 12-diBr-3-Cl-Pra 157 155	20	17.99	ppb	10.06	27436
87 124-tri-Cl-Bz 180 182	20	18.69	ppb	6.53	305769
88 naphthalene 128 129	20	17.18	ppb	14.09	214523
90 123-tri-Cl-Bz 180 182	20	19.61	ppb	1.96	222391
			Ave.% Dev	10.12	

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 17:40 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:32 2003
Print Time : Thu May 01 11:32 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

5016

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.07	9.03	0.004	96	70	761.786	10.00		0.04	
47	47 Cl-benzene-d5, I2	12.71	12.66	0.004	82	119	223.184	10.00		0.05	
62	62 1,4-DCB-d4 150 15	15.23	15.15	0.005	152	150	187.712	10.00		0.08	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.48	7.44	0.003	111	113	518.608	19.21	19.2	96.07%	
29	29 1,2-di-Cl-ethane-	8.06	8.02	0.002	65	102	214.731	17.06	17.1	85.30%	
55	55 toluene-d8(S2)	11.20	11.15	0.003	100	99	768.828	20.20	20.2	101.02%	
70	70 4-Br-1-F-Bz (S3)	13.96	13.90	0.004	174	95	345.743	20.61	20.6	103.07%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	388.177	17.84	17.8	99	
4	4 Chloromethane	2.78	2.78	0.000	50	52	314.773	16.98	17.0	98	
9	9 F114 85 135	2.83	2.83	0.000	85	135	501.305	20.61	20.6	96	
5	5 vinyl chloride	2.97	2.96	0.001	62	64	319.243	18.16	18.2	98	
6	6 bromomethane	3.38	3.37	0.001	94	96	297.323	19.26	19.3	95	
7	7 Chloroethane	3.53	3.52	0.002	64	66	252.239	19.38	19.4	98	
8	8 tri-Cl-F-methane	4.17	4.14	0.003	101	103	628.206	21.14	21.1	98	?
111	111 isopropyl alcoho	4.29	4.27	0.002	45	43	60.291	175.40	175.4	1	#
100	100 ethyl ether x5	4.47	4.44	0.004	59	74	876.837	80.76	80.8	99	
102	102 Acrolein x10	4.18	4.15	0.004	56	55	176.116	203.31	203.3	95	?
119	119 methyl acetate	5.09	5.06	0.004	43	74	158.971	17.07	17.1	95	?
104	104 Carbon disulfide	5.22	5.18	0.004	76	78	992.000	15.62	15.6	100	
103	103 Acrylonitrilex10	4.91	4.89	0.003	53	52	311.929	171.37	171.4	99	
95	95 Acetone x10	4.33	4.31	0.003	43	58	263.169	202.99	203.0	99	
108	108 F-113	5.06	5.02	0.004	151	101	527.111	23.08	23.1	98	
13	13 11-dichloroethene	4.79	4.76	0.004	61	96	578.845	19.38	19.4	99	
101	101 Acetonnitrilex10	4.08	4.20	-0.013	41	40	4.137	6.47	6.5	96	
109	109 Iodomethane	4.83	4.80	0.003	142	127	536.775	22.19	22.2	99	
113	113 Tert butyl alcoh	4.88	4.86	0.002	59	57	117.653	178.57	178.6	99	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 17:40 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:32 2003
Print Time : Thu May 01 11:33 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

5017

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	5.00	4.97	0.004	84	49	581.064	19.35	19.3	97	
	112 Allyl chloride	5.10	5.07	0.004	41	76	620.506	18.78	18.8	94	?
200	200 Nitro methane x1	5.85	5.82	0.004	61	46	610.000	183.54	183.5	97	#?
10	10 t-Bu-Me-ether	6.03	6.00	0.004	73	57	590.288	18.30	18.3	97	
19	19 t-12-di-Cl-ethene	5.85	5.82	0.004	96	61	417.743	18.25	18.2	99	?
98	98 Vinyl acetate x5	6.44	6.41	0.004	43	86	1822.747	88.47	88.5	97	
21	21 11-dichloroethane	6.19	6.15	0.004	63	83	827.680	20.70	20.7	99	
91	91 2-butanone MEKx10	6.87	6.83	0.004	43	72	1224.926	171.45	171.5	97	?
115	115 Di isoprop ether	6.90	6.85	0.005	45	87	1822.892	18.06	18.1	98	?
22	22 c-12-di-Cl-ethene	7.02	6.97	0.005	96	61	421.869	18.83	18.8	99	
23	23 22-Dichloropropan	7.39	7.35	0.004	77	97	691.258	20.04	20.0	99	
24	24 Br-Cl-methane	7.24	7.18	0.006	128	130	139.523	17.36	17.4	98	
25	25 chloroform	7.30	7.27	0.004	83	85	733.492	18.34	18.3	99	
201	201 Ethyl acetate x2	7.35	7.31	0.004	43	61	361.550	35.50	35.5	95	?
116	116 ETBE	7.45	7.40	0.005	59	87	1051.771	17.11	17.1	100	
117	117 Iso-butyl alcoho	7.35	7.31	0.004	43	42	368.565	180.84	180.8	77	#?
26	26 tetrahydrofuranx5	7.74	7.71	0.003	72	42	68.033	87.15	87.1	97	
34	34 111-tri-Cl-ethane	8.27	8.23	0.004	97	99	650.600	19.53	19.5	99	
30	30 12-dichloroethane	8.17	8.13	0.004	62	64	274.524	17.61	17.6	99	
35	35 11-Di-Cl-propene	8.52	8.48	0.004	75	110	587.246	20.17	20.2	100	
36	36 benzene	8.79	8.75	0.004	78	52	1335.059	20.17	20.2	98	
37	37 CCl4	8.73	8.68	0.005	117	119	543.484	21.31	21.3	99	
97	97 thiophene	8.93	8.89	0.004	84	58	611.092	18.57	18.6	97	
118	118 TAME	9.04	9.00	0.004	73	43	717.138	16.95	16.9	97	
39	39 12-di-Cl-propane	9.54	9.49	0.005	63	76	368.246	19.01	19.0	98	
40	40 trichloroethene	9.60	9.54	0.006	130	132	413.159	20.14	20.1	100	
96	96 Me-methacrylate	9.89	9.85	0.004	69	100	120.737	17.96	18.0	100	
42	42 Br-di-Cl-methane	9.65	9.61	0.004	83	85	468.055	17.33	17.3	97	
41	41 dibromomethane	9.49	9.45	0.004	174	172	177.648	19.01	19.0	99	
45	45 c-13-di-Cl-propen	10.42	10.37	0.006	75	110	441.720	18.54	18.5	98	
92	92 2-ClEt-Vi-ether10	10.19	10.15	0.005	63	43	291.782	71.42	71.4	99	
56	56 toluene	11.28	11.23	0.006	91	92	1227.802	19.73	19.7	100	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 17:40 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:32 2003
Print Time : Thu May 01 11:33 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

5018

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.42	11.36	0.007	69	99	239.507	18.60	18.6	97	
93	93 2-Hexanone x5	11.54	11.48	0.007	43	58	398.233	92.03	92.0	96	
48	48 112-tri-Cl-Et	11.08	11.03	0.006	97	83	157.257	17.24	17.2	98	
58	58 1,2-di-br-ethane	11.88	11.82	0.007	107	109	170.146	17.46	17.5	100	
51	51 di-Br-Cl-methane	11.62	11.57	0.006	129	127	223.865	18.25	18.3	96	
46	46 t-13-di-cl-propen	10.92	10.87	0.005	75	110	284.786	18.55	18.5	99	
105	105 1-Chlorohexane	12.69	12.64	0.006	55	93	421.400	22.36	22.4	99	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.59	10.52	0.005	43	58	134.404	19.12	19.1	98	
49	49 1,3-di-cl-propane	11.34	11.29	0.004	76	78	284.260	19.48	19.5	99	
59	59 tetra-Cl-ethene	12.05	12.00	0.004	166	168	440.272	22.42	22.4	99	
60	60 chlorobenzene	12.76	12.70	0.004	112	77	715.660	21.94	21.9	97	
61	61 1112-tetra-Cl-Et	12.68	12.62	0.005	131	133	280.352	21.46	21.5	100	?
64	64 ethylbenzene	12.96	12.90	0.005	91	106	1381.912	21.99	22.0	99	
65	65 m/p-Xylenes x2	13.16	13.10	0.005	91	106	2077.922	43.49	43.5	98	
99	99 1-4-di-Cl-butane	13.51	13.46	0.004	55	41	256.743	17.83	17.8	100	?
52	52 bromoform	13.27	13.22	0.004	173	175	130.445	19.63	19.6	92	
66	66 styrene	13.49	13.43	0.005	104	78	720.039	21.34	21.3	98	?
67	67 o-xylene	13.55	13.50	0.004	91	106	1014.307	21.58	21.6	99	?
68	68 1122-Tetra-Cl-Et	13.57	13.51	0.005	83	85	162.432	18.82	18.8	98	?
110	110 t-1,4-dichloro-2	13.73	13.67	0.005	89	53	30.780	22.58	22.6	75	#?
106	106 Cl-benzyl	15.19	15.12	0.005	91	126	252.253	23.54	23.5	100	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.70	13.64	0.004	110	97	40.845	17.87	17.9	90	?
71	71 isopropylbenzene	13.91	13.86	0.004	105	120	1448.076	23.48	23.5	99	
72	72 bromobenzene	14.16	14.10	0.004	156	158	277.685	20.51	20.5	96	
73	73 n-propylbenzene	14.35	14.29	0.004	120	78	389.498	23.42	23.4	99	
74	74 2-Cl-Tl 126 1	14.44	14.37	0.004	126	128	227.537	20.60	20.6	98	
75	75 4-Cl-Tl 126 1	14.51	14.45	0.004	126	128	290.072	19.21	19.2	95	m
76	76 135-tri-Me-Bz	14.63	14.57	0.004	105	120	1111.705	22.32	22.3	99	
79	79 tert-butylbenzene	14.90	14.84	0.004	119	91	1159.830	22.68	22.7	98	
78	78 124-tri-Me-Bz	15.00	14.94	0.004	105	120	937.730	22.15	22.1	98	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

m 5/1/03

Quantitation Report: **Applied P &Ch Lab** EPA 524.2

Data Filename: C:\HPCHEM\1\DATA\03G2269\G2269Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 30 17:40 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : May 01 11:32 2003
Print Time : Thu May 01 11:33 2003
Miscleneous :

Sample : f=1
Inst. : GCMS-G
RF via : Multiple Level Calibration
Operator: Eddie
Multiplr: 1.000000

5019

ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-di-Cl-Bz 146	15.18	15.11	0.004	146	148	414.282	19.21	19.2	90	
82	82	14-di-Cl-Bz 146	15.25	15.19	0.004	146	148	649.550	20.72	20.7	94	
81	81	sec-butylbenzene	15.11	15.04	0.004	105	134	1669.005	22.32	22.3	99	
77	77	4-iso-Pr-toluene	15.28	15.22	0.004	119	134	1245.699	23.09	23.1	99	
84	84	12-di-Cl-benzene	15.59	15.52	0.004	146	148	391.500	18.81	18.8	99	
85	85	n-butylbenzene	15.67	15.60	0.004	91	134	1233.921	21.83	21.8	100	
86	86	12-diBr-3-Cl-Pra	16.04	15.97	0.004	157	155	27.436	17.99	18.0	94	
87	87	124-tri-Cl-Bz	17.32	17.24	0.005	180	182	305.769	18.69	18.7	98	
88	88	naphthalene	17.55	17.49	0.004	128	129	214.523	17.18	17.2	99	
90	90	123-tri-Cl-Bz	17.74	17.68	0.004	180	182	222.391	19.61	19.6	98	
89	89	hx-Cl-butadiene	17.58	17.52	0.004	225	260	299.222	24.22	24.2	96	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

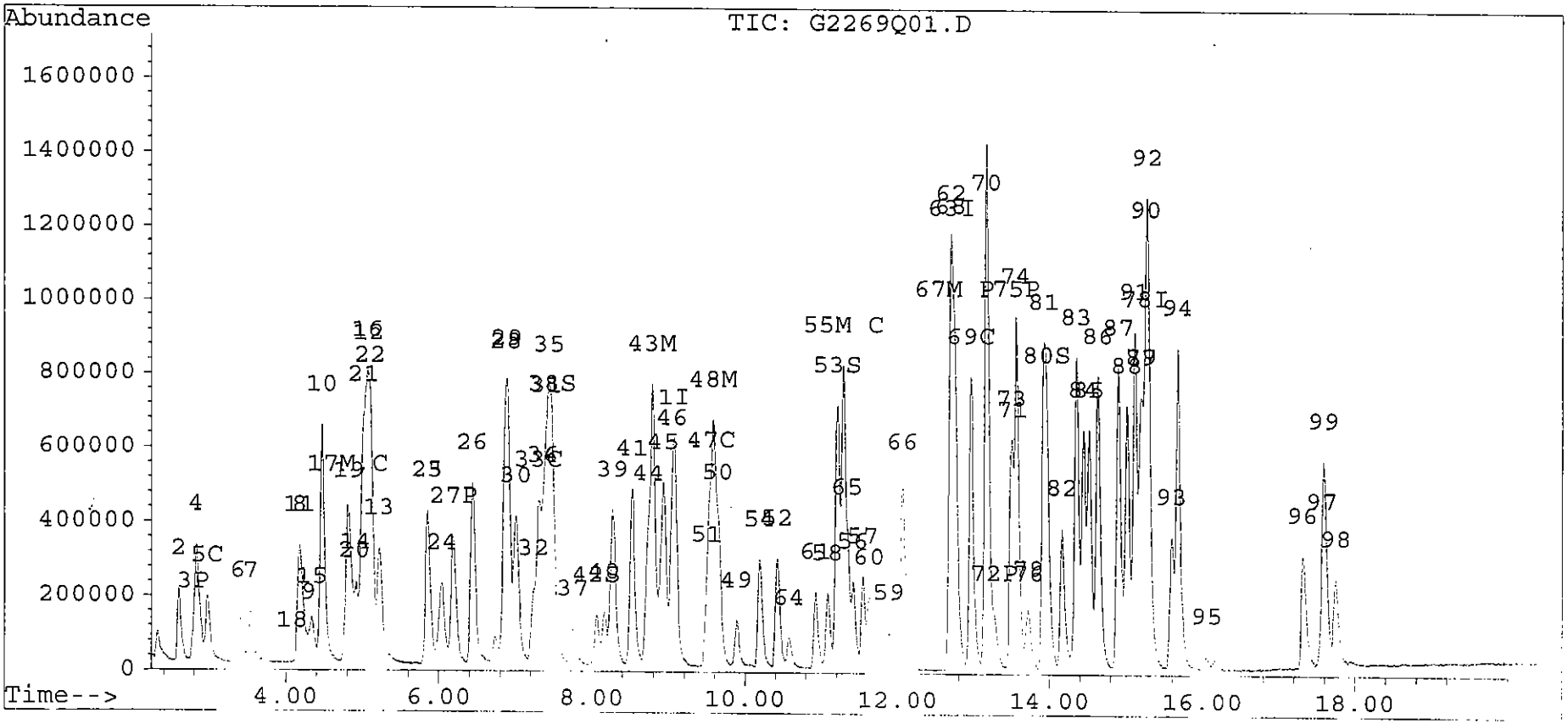
Quantitation Report

Data File : C:\HPCHEM\1\DATA\03G2269\G2269Q01.D
Acq On : 30 Apr 03 5:40 pm
Sample : f=1
Misc :
Quant Time: May 1 11:32 2003

Vial: 17
Operator: Eddie
Inst : GCMS-G
Multiplr: 1.00
Quant Results File: quant.res

5020

Method : C:\HPCHEM\1\METHODS\E524G003.M
Title : **Applied P &Ch Lab** EPA 524.2
Last Update : Mon Jan 13 10:38:23 2003
Response via : Multiple Level Calibration



FORM-8A

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 524.2

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	032964
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		CCV Data File:	G2269Q01	Instrument ID:	G

Batch No: 03G2269

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-1 Area #	IS-1 RT #	IS-2 Area #	IS-2 RT #	IS-3 Area #	IS-3 RT #
12 Hour CCV STD			04/30/03 17:40	761786	9.07	223184	12.71	187712	15.23
CCV Upper Limit				1523572	9.57	446368	13.21	375424	15.73
CCV Lower Limit				380893	8.57	111592	12.21	93856	14.73
1	03G2269-LCS-01	03G2269-LCS-01	04/30/03 18:09	760366	9.08	211140	12.72	183003	15.23
2	MW-17-2MS	03-2933-3MS	04/30/03 18:38	774675	9.07	217575	12.72	187626	15.24
3	MW-17-2MSD	03-2933-3MSD	04/30/03 19:08	799033	9.08	232426	12.73	196889	15.24
4	03G2269-MB-01	03G2269-MB-01	04/30/03 21:03	730711	9.12	192175	12.76	163983	15.28
5	DUPE-4-2Q03	03-2964-1	05/01/03 00:53	785372	9.11	227250	12.74	180327	15.25
6	EB-7-4/29/03	03-2964-2	05/01/03 01:21	748622	9.11	208208	12.74	177365	15.24
7	MW-24-1	03-2964-3	05/01/03 01:50	764286	9.11	212917	12.74	169783	15.25
8	MW-24-2	03-2964-4	05/01/03 02:19	732476	9.11	207779	12.75	169276	15.26
9	MW-24-3	03-2964-5	05/01/03 02:48	799254	9.10	217705	12.74	179025	15.25
10	MW-24-4	03-2964-6	05/01/03 03:17	817500	9.11	230007	12.75	176463	15.25
11	MW-24-5	03-2964-7	05/01/03 03:46	777713	9.12	215822	12.76	170404	15.25
12	TB-7-4/29/03	03-2964-8	05/01/03 04:15	780494	9.12	224518	12.76	175459	15.25
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

IS-1 = FLUOROBENZENE
IS-2 = CHLOROBENZENE-D5
IS-3 = 1,4-DICHLOROBENZENE-D4

Area Upper Limit = +100% of CCV internal standard area
Area Lower Limit = - 50% of CCV internal standard area
RT Upper Limit = +0.50 minutes of CCV internal standard RT
RT Lower Limit = - 0.50 minutes of CCV internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits

Applied P & Ch Laboratory
[illegible] Magnolia Ave. Chino CA 91710
(909) 590-1828 Fax: (909) 590-1498

VOC-044

VOC Analysis General Logbook

Sequence # 03G1044 Batch # 03G1044 Matrix: W Date: 1/10/03 Analyst: E. Lin

IS/Surrogate: GC14507/14508 Methanol(mark-*M*): _____ PEG (mark-*PEG*): _____ Defoaming(mark-*DF*): _____

(Calib. + Ini. Batch ☒ Initial Batch; ☐ Middle Batch; ☐ Final Batch. ☐ Internal Study Datafile Path: _____

#	Type	Sample ID	Method	V/X=f1	Vf/Vi=f2	Vspg/Vinj=f3	F	A-#	Datafile	Note	pH
2377	SP	G1044P01	E524G-603	25/25=1	/ =	/ =	1		G1044P01	1/10/03 1:5 lpm	
2378	Calib	3-0003		/ =	/ =	/ =			3-0003	GC14720	
2379		3-002		/ =	/ =	/ =			3-002		
2380		3-010		/ =	/ =	/ =			3-010		
2381		3-020		/ =	/ =	/ =			3-020		
2382		3-040		/ =	/ =	/ =			3-040		
2383	↓	3-080		/ =	/ =	/ =			3-080		
2384	CCV	G1044Q01		/ =	/ =	/ =			G1044Q01	CCV/GC14721/ICV/nF1	
2385	MS	M01		/ =	/ =	/ =			M01	51011-03	C2
2386	LCS	L01		/ =	/ =	/ =			L01		
2387	MSD	N01		/ =	/ =	/ =			N01	51011-03	C2
2388	MB	K01		/ =	/ =	/ =			K01		
2389	Sample	1084-03		/ =	/ =	/ =			1084-03		C2
2390		6844-02A		/ =	/ =	/ =			6844-02A		
2391		6844-01A		/ =	/ =	/ =			↓ -01A		
2392		1017-1		/ =	/ =	/ =			1017-1		
2393		1011-02		/ =	/ =	/ =			1011-02		
2394		↓ 3		/ =	/ =	/ =			↓ 3		
2395		↓ 4		/ =	/ =	/ =			↓ 4		
2396		↓ 5		/ =	/ =	/ =			↓ 5		
2397		1047-01		/ =	/ =	/ =			1047-01		
2398		↓ -02		/ =	/ =	/ =			↓ -02		
2399		1051-2		/ =	/ =	/ =			1051-02		
2400		↓ 3		/ =	/ =	/ =			↓ 3		
2401		1084-1		/ =	/ =	/ =			1084-01		
2402		↓ 2		/ =	/ =	/ =			↓ 2		
2403		↓ 4		/ =	/ =	/ =			↓ 4		
2404				/ =	/ =	/ =					
2405				/ =	/ =	/ =					
2406				/ =	1/10/03	/ =					
2407				/ =	/ =	/ =					
2408				/ =	/ =	/ =					

Type	Op #	STD Lot #	$C_{std}(ng/\mu L) \times V_{std}(\mu L)/X(g \text{ or } mL) = T$	Op #	STD Lot #	$C_{std}(ng/\mu L) \times V_{std}(\mu L)/X(g \text{ or } mL) = T$
LCS/LCSD	2386	GC-14721	200 × 2.5 /X= 20 ppb		GC-	× /X= ppb
MS/MSD	2385/2387	GC-	× /X= ppb		GC-	× /X= ppb

Footnote/Anomaly:

5022

GT

Applied P & Ch Laboratory

Magnolia Ave. Chino CA 91710

(909) 590-1828 Fax: (909) 590-1498

VOC-087

VOC Analysis General Logbook

Sequence # 03G 2269 Batch # 03G2269 Matrix: W Date: 4-30-03 Analyst: Eddie

IS/Surrogate: GC- 15114/15115 Methanol(mark-M): PEG (mark-PEG): Defoaming(mark-DF):

Ini. Batch ☑ Initial Batch; ☐ Middle Batch; ☐ Final Batch. ☐ Internal Study Datafile Path:

Type	Sample ID	Method	$V/X=f_1$	$V_f/V_i=f_2$	$V_{spg}/V_{inj}=f_3$	F	A-#	Datafile	Note	pH
SP	G2269P01	E524G	25/25 = 1	/ =	/ =	1		G2269P01		
CW	Q01	003	/ =	/ =	/ =			Q01	4-30-03 5:40pm	GC15116
LCS	L01		/ =	/ =	/ =			L01		
MS	M01		/ =	/ =	/ =			M01	2933-03	C2
MSD	N01		/ =	/ =	/ =			N01	2933-03	C2
MB	K01		/ =	/ =	/ =			K01		
MB	K02		/ =	/ =	/ =			K02		
Sample	2933-01		/ =	/ =	/ =			2933-01	eb	C2
	02		/ =	/ =	/ =			02		
	03		/ =	/ =	/ =			03		
	04		/ =	/ =	/ =			04		
	05		/ =	/ =	/ =			05		
	06		/ =	/ =	/ =			06		
	07		/ =	/ =	/ =			07		
	2964-01		/ =	/ =	/ =			2964-01		
	02		/ =	/ =	/ =			02		
	03		/ =	/ =	/ =			03		
	04		/ =	/ =	/ =			04		
	05		/ =	/ =	/ =			05		
	06		/ =	/ =	/ =			06		
	07		/ =	/ =	/ =			07		
	08		/ =	/ =	/ =			08		
			/ =	/ =	/ =					
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			/ =	/ =	/ =					
			/ =	/ =	/ =					
			/ =	/ =	/ =					
			/ =	/ =	/ =					

Type	Op #	STD Lot #	$C_{std}(ng/\mu L)\times V_{std}(\mu L)/X(g \text{ or } mL)=T$	Op #	STD Lot #	$C_{std}(ng/\mu L)\times V_{std}(\mu L)/X(g \text{ or } mL)=T$
S/LCSD	3755	GC-	× /X= ppb		GC-	× /X= ppb
S/MSD	3756/3757	GC- 15117	200 × 2.5 /X= 20 ppb		GC-	× /X= ppb

otnote/Anomaly:

5023

: [CUST.DOC.GC]VOC_LOG .TEX Root-File: VOC_LOG_ROOT.TEX 1-Page-File:[CUST.DOC.GC]VOC_LOG1.TEX; pH for field water sample only.

form 7-201, April 03, 1996; Ver 4.1 No pencil. Use blue pen for record. Use red pen for correction. Supervisor Initial

Level C Data Package Deliverables

8270-SIM

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
Fax (909)590-1498

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270-SIM

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	04/29/2003
Project ID:	JPL	Service ID:	32964	Collected by:	
		Lab Sample ID:	03-2964-3	Received Date:	04/29/2003
Sample ID:	**MW-24-1**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3520	Instrument ID:	GC/MS: M
Anal. Method:	8270-SIM	Prep. Date:	05/01/03	Anal. Date:	05/02/03
Batch No:	03G2304	Prep. No:	1 of 1	Anal. Time:	13:12
Data File Name:	2964-03	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	1,4-DIOXANE	123-91-1	μg/L	1	3.6	

Internal Standard			Control Limit, %	IS Rec.%
1	1,4-DIOXANE-D8	17647-74-4	50-200	78
# of out-of-control				0

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

Applied P & Ch Laboratory

Organic Analysis Results for Method 8270-SIM

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	05/01/2003
Project ID:	JPL	Service ID:	32964	Collected by:	
		Lab Sample ID:	03G2304-MB-01	Received Date:	05/01/2003
Sample ID:	**03G2304-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank	Prep. Method:	3520	Instrument ID:	GC/MS: M
Anal. Method:	8270-SIM	Prep. Date:	05/01/03	Anal. Date:	05/02/03
Batch No:	03G2304	Prep. No:	1 of 1	Anal. Time:	11:34
Data File Name:	G2304K01	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	1,4-DIOXANE	123-91-1	µg/L	1	<1	U

Internal Standard			Control Limit, %	IS Rec.%
1	1,4-DIOXANE-D8	17647-74-4	50-200	75
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

FORM-3C

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 8270-SIM

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32964
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03G2304		
LCS Filename:	G2304L01	Date Analyzed:	050203	Time Analyzed:	11:53
LCSD Filename:	G2304J01	Date Analyzed:	050203	Time Analyzed:	12:12

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
1,4-DIOXANE	µg/L	20	0	19.5	98	40-140
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
1,4-DIOXANE	µg/L	20	19.7	99	1	30	40-140
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* – Values outside of contract required QC Limits D – Spiked components diluted out

Comments: _____

_____

FORM-4B

Applied P & Ch Laboratory

Method Blank Summary for Method 8270-SIM

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32964
Project ID:	JPL	Project No:	04-4428.10	Analysis Date:	05/02/03
		Sample Matrix:	Water	Analysis Time:	11:34
Sample ID:	**03G2304-MB-01**	Batch No:	03G2304	Instrument ID:	GC/MS: M
Lab Sample ID:	03G2304-MB-01	Data File Name:	G2304K01	GC Column:	DB-5.625
				Column ID:	0.25 mm

This Method Blank applies to the following samples and QC samples:

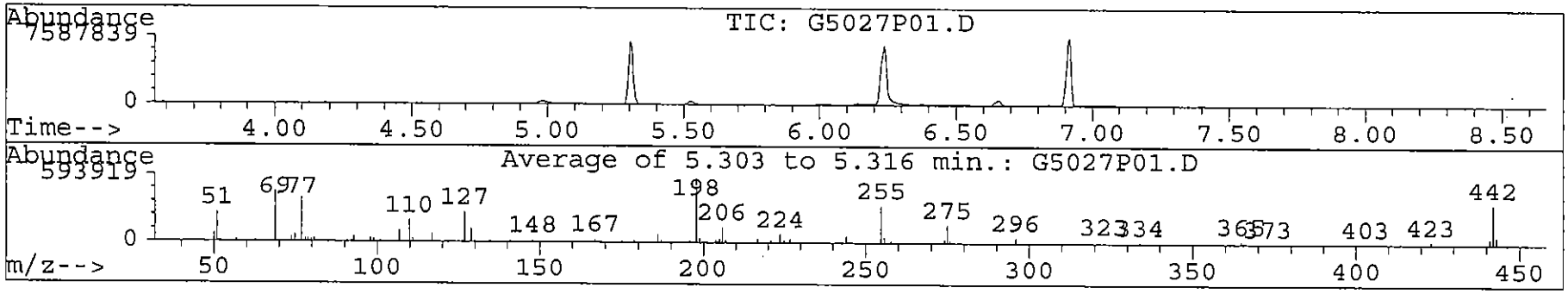
#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1	03G2304-LCS-01	03G2304-LCS-01	Lab Control Spike	G2304L01	05/02/03	11:53
2	03G2304-LSD-01	03G2304-LSD-01	Lab Control Spike Duplicate	G2304J01	05/02/03	12:12
3	MW-24-1	03-2964-3	Field Sample	2964-03	05/02/03	13:12
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

DFTPP

Data File : C:\HPCHEM\1\DATA\02G5027\G5027P01.D
Acq On : 17 Dec 02 2:19 pm
Sample : ##02g5027,w dftpp gc14349
Misc :

Vial: 99
Operator: Andy Huang
Inst : GC/MS - M
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270



Peak Apex is scan: AVERAGE

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	44.9	254307	PASS
68	69	0	2	0.0	0	PASS
69	198	1	100	78.3	443243	PASS
70	69	0	2	0.3	1277	PASS
127	198	25	75	46.2	261139	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	565803	PASS
199	198	5	9	6.7	37981	PASS
275	198	10	30	27.4	155040	PASS
365	198	1	100	3.7	20870	PASS
441	443	1	99	78.6	52501	PASS
442	198	40	110	61.8	349717	PASS
443	442	15	24	19.1	66784	PASS

G5027P01.D DIOSIM06.M Tue Dec 17 22:19:18 2002 5972

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name : APPLIED P & CH LAB Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 03-2964

Lab File ID: G5027P01 DFTPP Injection Date: 12/17/02

Instrument ID: GCMS-M DFTPP Injection Time: 1419

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	44.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	78.3
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	46.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100 % relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	27.4
365	Greater than 0.75% of mass 198	3.7
441	Present, but less than mass 443	9.3 (78.6)3
442	40.0 - 100.0% of mass 198	61.8
443	17.0 - 23.0% of mass 442	11.8 (19.1)2

1-Value is % mass 69 2-Value is % mass 442 3-Value is % mass 443

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD040	DS006-40	DS006-040.D	12/17/2002	1438
02	SSTD030	DS006-30	DS006-030.D	12/17/2002	1457
03	SSTD020	DS006-20	DS006-020.D	12/17/2002	1516
04	SSTD010	DS006-10	DS006-10.D	12/17/2002	1536
05	SSTD001	DS006-01	DS006-01.D	12/17/2002	1555
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					

Response Factor Report GC/MS - M

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Tue Dec 17 16:08:23 2002
Response via : Initial Calibration

Calibration Files
30 =M06-030.D 20 =M06-020.D 10 =M06-010.D
1 =M06-001.D 40 =M06-040.D

		Compound	30	20	10	1	40	Avg	%RSD
1)	I 1	1.4-Dioxane-d8	----------ISTD----------						
2)	2	1,4-Dioxane	1.151	1.165	1.216	1.379	1.165	1.215	7.81

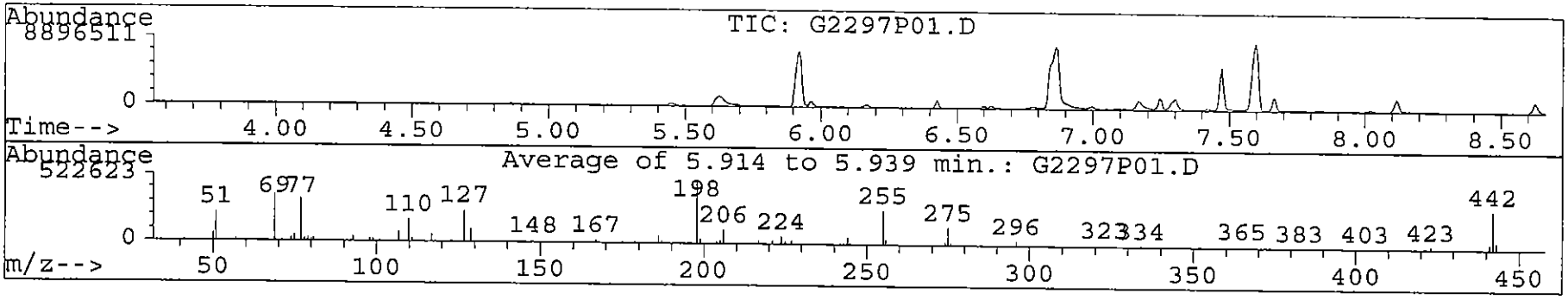
(#) = Out of Range

DFTPP

Data File : C:\HPCHEM\1\DATA\03G2297\G2297P01.D
Acq On : 2 May 03 9:57 am
Sample : ##03g2297,s dftpp gc14349
Misc :

Vial: 99
Operator: Andy Huang
Inst : GC/MS - M
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270



Peak Apex is scan: AVERAGE

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	80	45.2	224750	PASS
68	69	0	2	0.0	0	PASS
69	198	1	100	72.5	360752	PASS
70	69	0	2	0.9	3341	PASS
127	198	25	75	49.4	245959	PASS
197	198	0	1	0.0	0	PASS
198	198	100	100	100.0	497757	PASS
199	198	5	9	7.0	34603	PASS
275	198	10	30	27.4	136388	PASS
365	198	1	100	3.4	16958	PASS
441	443	1	99	79.6	45081	PASS
442	198	40	110	60.1	298989	PASS
443	442	15	24	18.9	56603	PASS

FORM-5B

Applied P & Ch Laboratory

Semivolatile Organic Instrument Performance Check for Method 8270-SIM

Decafluorotriphenylphosphine (DFTPP), Part II

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	032964
Project ID:	JPL	DFTPP Inj. Date:	05/02/03	Batch No:	03G2304
		DFTPP Inj. Time:	09:57	Sequence No:	03G2297
Project No:	04-4428.10	Instrument ID:	M	GC Column:	DB-5.625
Data File Name:	G2297P01			Column ID:	0.25 mm

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

#	Client Sample No	Lab Sample ID	Data File Name	Date Analyzed	Time Analyzed
1	03G2304-CCV-01	03G2304-CCV-01	G2297Q01	05/02/03	10:16
2	03G2304-MB-01	03G2304-MB-01	G2304K01	05/02/03	11:34
3	03G2304-LCS-01	03G2304-LCS-01	G2304L01	05/02/03	11:53
4	03G2304-LSD-01	03G2304-LSD-01	G2304J01	05/02/03	12:12
5	MW-24-1	03-2964-3	2964-03	05/02/03	13:12
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

Evaluate Continuing Calibration Report

5034

Data File : C:\HPCHEM\1\DATA\03G2297\G2297Q01.D
Acq On : 2 May 03 10:16 am
Sample : gc14554
Misc :

Vial: 100
Operator: Andy Huang
Inst : GC/MS - M
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Fri May 02 10:23:53 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1 1.4-Dioxane-d8	1.000	1.000	0.0	101	0.00
2		2 1,4-Dioxane	1.215	1.171	3.6	102	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report: * Applied P & Ch Lab * GC/MS 8270

5035

Data Filename: C:\HPCHEM\1\DATA\03G2297\G2297Q01.D
Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Acq. Time : May 2 10:16 2003
Method Update: Fri May 02 10:23 2003
Quant. Time : May 02 11:32 2003
Print Time : Fri May 02 11:32 2003
Miscleneous :

Sample : gc14554
Inst. : GC/MS - M
RF via : Multiple Level Calibration
Operator: Andy Huang
Multiplr: 1.000000

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppm	C,ppb	Quality	Note
Internal Standards										Dev(Min)	
1	1 1.4-Dioxane-d8	5.34	5.34	0.000	96	66	471.664	20.00		0.00	
System Monitoring Compounds (Surrogate)										%Recovery	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
2	2 1,4-Dioxane	5.40	5.40	0.000	88	58	552.289	19.27	19272.4	85	

= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06
5972

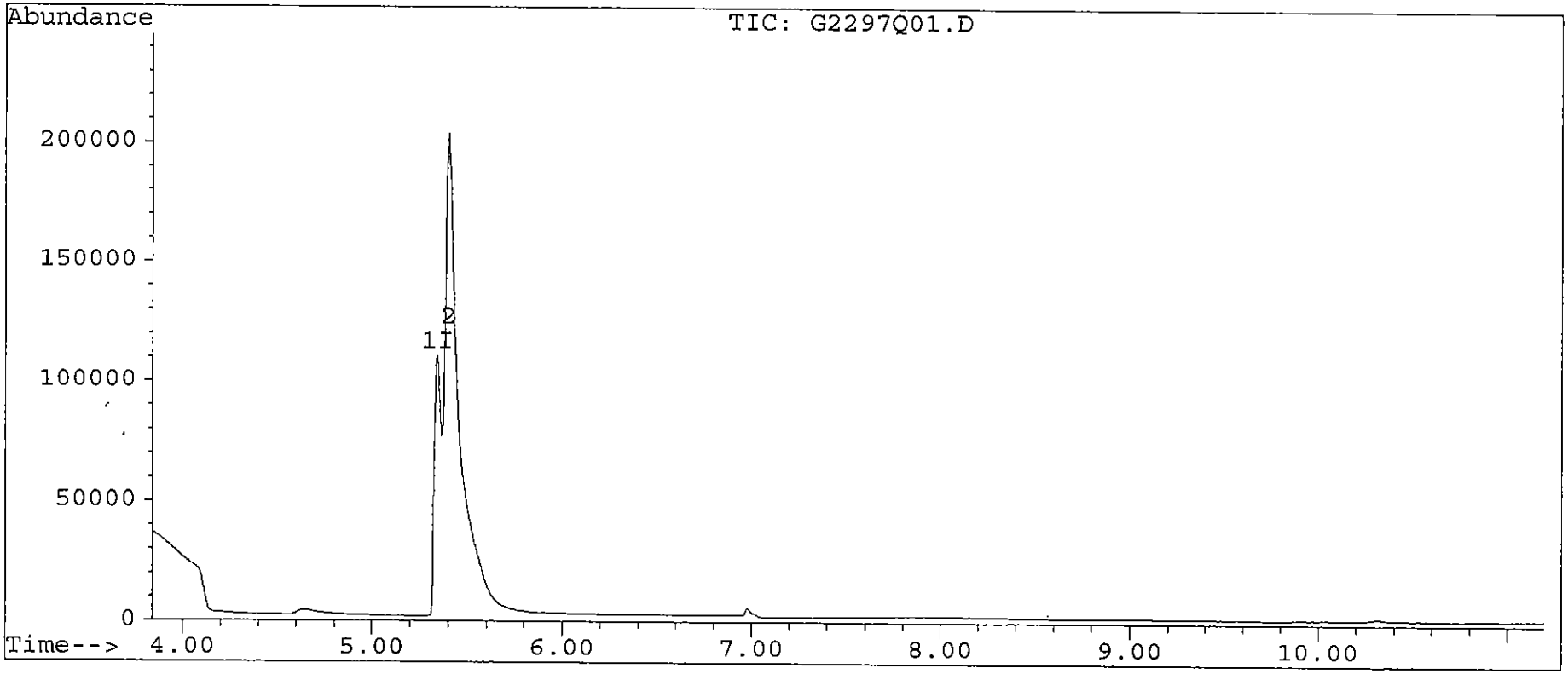
Quantitation Report

5036

Data File : C:\HPCHEM\1\DATA\03G2297\G2297Q01.D
Acq On : 2 May 03 10:16 am
Sample : gc14554
Misc :
Quant Time: May 2 11:32 2003

Vial: 100
Operator: Andy Huang
Inst : GC/MS - M
Multiplr: 1.00
Quant Results File: quant.res

Method : C:\HPCHEM\1\METHODS\DIOSIM06.M
Title : * Applied P & Ch Lab * GC/MS 8270
Last Update : Fri May 02 10:23:53 2003
Response via : Multiple Level Calibration



FORM-8B

Applied P & Ch Laboratory

Internal Standard Area and RT Summary for Method 8270-SIM

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	032964
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		CCV Data File:	G2297Q01	Instrument ID:	M

Batch No: 03G2304

#	Client Sample No	Lab Sample ID	Analysis Date & Time	IS-1 Area #	IS-1 RT #
12 Hour CCV STD			05/02/03 10:16	471664	5.34
CCV Upper Limit				943328	5.84
CCV Lower Limit				235832	4.84
1	03G2304-MB-01	03G2304-MB-01	05/02/03 11:34	354962	5.35
2	03G2304-LCS-01	03G2304-LCS-01	05/02/03 11:53	320271	5.40
3	03G2304-LSD-01	03G2304-LSD-01	05/02/03 12:12	283812	5.39
4	MW-24-1	03-2964-3	05/02/03 13:12	365843	5.46
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

IS-1 = 1,4-DIOXANE-D8

Area Upper Limit = +100% of CCV internal standard area
Area Lower Limit = - 50% of CCV internal standard area
RT Upper Limit = +0.50 minutes of CCV internal standard RT
RT Lower Limit = - 0.50 minutes of CCV internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits

Log-072

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Organic Sample Preparation Logbook

Batch # 03G2304 Matrix: W Target method: 1,4-Dioxane EXT Method: 3520C Date: 5-1-3

Solvent: CHCl Lot # 027471; Exchange Solvent: NA Lot # NA; Analyst: [illegible]

Lot #: Surr.: GC- NA Conc.: NA ppm Na_2SO_4: RC0078

Op. #	Sample Type	Sample ID #	Smpl Amnt (mL or g)	Surr. Vol mL	Extract sub-ID	Final Vol. mL	Dilution F=V/X	Note & Anomaly
3131	MB	03G2304-101	1000.0	NA	1,4-Dioxane	1.00	0.001	
3132	LCS	-201	1000.0					
3133	LCSD	-201	1000.0					
3134	Sample-1	03-2933-5	1000.0					
3135	MS			5-1-2				
3136	MSD							
3137	Sample-2	03-2940-2	1000.0	NA	1,4-Dioxane	1.00	0.001	
3138	Sample-3	03-2964-3	1000.0					
3139	Sample-4							
3140	Sample-5							
3141	Sample-6							
3142	Sample-7							
3143	Sample-8							
3144	Sample-9							
3145	Sample-10							
3146	Sample-11							
3147	Sample-12							
3148	Sample-13							
3149	Sample-14							
3150	Sample-15							
3151	Sample-16							
3152	Sample-17							
3153	Sample-18							
3154	Sample-19							
3155	Sample-20							
3156	MTX Dup.							
3157	LCS′							
3158	LCSD′							
3159	MS′							
3160	MSD′							

5-1-2 [illegible]

Type	Op #	STD Lot #	C_{std}(ppm)×V_{std}(mL)/X(g or mL)= T	Op #	STD Lot #	C_{std}(ppm)×V_{std}(mL)/X(g or mL)= T
LCS/LCSD	3132	GC-14768	1000 × 20.0 × 1.00 /X= ppb	3133	GC-14768	1000 × 20.0 × 1.00 /X= ppb
MS/MSD		GC-	1000 × × /X= ppb		GC-	1000 × × /X= ppb
LCS′/LCSD′		GC-	1000 × × /X= ppb		GC-	1000 × × /X= ppb
MS′/MSD′		GC-	1000 × × /X= ppb		GC-	1000 × × /X= ppb

5038

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Organic Sample Preparation

Extraction method: **1** 3510–separate funnel; **2** 3520–L-L continue extraction; **3** 3550–Ultrasonic; **4** LUFT–Shaker; **5** 3540–Soxhlet; **6** Solid phase Extraction; **7** Microextraction; **8** SFE; **9** Dilution; **10** Concentration; **11** Other, specify.

Service ID: 2933 Batch # 062304 Matrix W GC, GC/MS Method 1,4-Dioxane Ext Method 3520C

Sample Extraction

OP. by	HL		Date	5/1/03	Surro Lot	GC- N/A	Conc.	N/A ppm
LCS Lot	GC- 14768		Conc.	20.0 ppm	MS Lot	GC- 14768	Conc.	20.0 ppm
Ext. solv.	CH2Cl2		Lot #	027471	Exchage solv.	N/A	Lot #	N/A
Sample ID	-K01	-L01	-J01	-S				
Sample Matrix	W							
Sample Amount, X (g/mL)	1000	1000	1000	1000				
Any TCLP, EP, WET, SPLP ?								
Surr. STD used, mL	N/A							
Spike STD used, mL								
[Extracted at pH]	1	1	1	1	1	1	1	1
Solvent amount, mL	200.0	X	X	X	X	X	X	X
Final volume, V_f mL	1.000							
Extraction DF $f_e = V/X$	0.001							
Sub-ID of extracts	1,4-Dioxane							
Anomaly Footnote† :								

Sample Cleanup

Op. by _____ Date / / (For details, see Cleanup worksheet)

Cleanup method:				
Cleanup DF, f_c				
Preparation DF, $f_1 = f_e\, f_c$				

Pre-injection*:

Op. by _____ Date / / IS Lot : GC- _____ Conc. _____ ppm

2nd dilution, f_2	(1)			
V_f, µL	(40)			

Single Extract GC, GC/MS Analysis:

$V_2 = V_f/f_2$, µL	($40/f_2$)			
$V_{solvent} = V_f - V_2$, µL				

Double Extract GC, GC/MS Analysis:

$V_> = \frac{1}{2}V_f/f_2$, µL	($20/f_2$)			
$V_< = \frac{1}{2}\frac{V_f}{f_2}\frac{f_<}{f_>}$, µL	($\frac{20}{f_2}\frac{f_<}{f_>}$)			
$V_{solvent} = V_f - V_> - V_<$				
IS volume, µL	(10)			
Final Conc. of IS	(40 ppm)			
Total $F = 2\, f_1\, f_>$ or $f_1\, f_2$				

† Extraction Anomaly Footnote:
1. Difficult to concentrate to 1.0 mL.
2. Extract is dark color
3. Extract is sticky
4. Heterogenous matrix.
5. Too much precipitate during extraction.
6. There is an oil layer above the sample.
7. Mixture of soil & water.
8. BN-extract is interfered, A-extract only.
9. Sample has strong stink
10. Some solvent suspected
11. special color, specify

* For double extract analysis (ABN), $f_> = \max[f_A, f_B]$ and $f_< = \min[f_A, f_B]$, where f_A, f_B are f_1 for A and BN extracts, respectively. The values in () is the typical case for 625/8270 ABN analysis.

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Organic Sample Preparation

Extraction method: **1** 3510–separate funnel; **2** 3520–L-L continue extraction; **3** 3550–Ultrasonic; **4** LUFT–Shaker; **5** 3540–Soxhlet; **6** Solid phase Extraction; **7** Microextraction; **8** SFE; **9** Dilution; **10** Concentration; **11** Other, specify.

Service ID: 2964 Batch # 3G2304 Matrix W GC, GC/MS Method 1,4-Dioxane Ext Method 3520C

Sample Extraction

OP. by HL Date 5/1/03 Surro Lot GC- N/A Conc. N/A ppm
LCS Lot GC- 14768 Conc. 20.0 ppm MS Lot GC- 14768 Conc. 20.0 ppm
Ext. solv. CH2Cl2 Lot # 027471 Exchage solv. N/A Lot # N/A

Sample ID.	-3						
Sample Matrix	W						
Sample Amount, X (g/mL)	1000						
Any TCLP, EP, WET, SPLP ?							
Surr. STD used, mL	N/A						
Spike STD used, mL							
[Extracted at pH]	/	/	/	/	/	/	/ /
Solvent amount, mL	200.0	x	x	x	x	x	x x
Final volume, V, mL	1.000						
Extraction DF $f_e = V/X$	2001						
Sub-ID of extracts	1,4-Dioxane						
Anomaly Footnote† :							

Sample Cleanup

Op. by Date / / (For details, see Cleanup worksheet)

Cleanup method:				
up DF, f_c				
Preparation DF, $f_1 = f_e f_c$				

Pre-injection*:

Op. by Date / / IS Lot : GC- Conc. ppm

2nd dilution, f_2	(1)						
V_t, µL	(40)						

Single Extract GC, GC/MS Analysis:

$V_2 = V_t/f_2$, µL	($40/f_2$)						
$V_{solvent} = V_t - V_2$, µL							

Double Extract GC, GC/MS Analysis:

$V_> = \frac{1}{2}V_t/f_2$, µL	($20/f_2$)						
$V_< = \frac{1}{2}\frac{V_t f_<}{f_2 f_>}$, µL	($\frac{20\, f_<}{f_2 f_>}$)						
$V_{solvent} = V_t - V_> - V_<$							
IS volume, µL	(10)						
Final Conc. of IS	(40 ppm)						
Total $F = 2\, f_1\, f_>$ or $f_1\, f_2$							

† Extraction Anomaly Footnote:
1. Difficult to concentrate to 1.0 mL.
2. Extract is dark color
3. Extract is sticky
4. Heterogenous matrix.
5. Too much precipitate during extraction.
6. There is an oil layer above the sample.
7. Mixture of soil & water.
8. BN-extract is interfered, A-extract only.
9. Sample has strong stink
10. Some solvent suspected
11. special color, specify

* For double extract analysis (ABN), $f_> = \max[f_A, f_B]$ and $f_< = \min[f_A, f_B]$, where f_A, f_B are f_1 for A and BN extracts, respectively. The values in () is the typical case for 625/8270 ABN analysis.

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Analysis Anomaly Record

Batch #: 036304 Method: 1,4 Dioxane Matrix: W Date: 5-1-03

Samples Involved: 2933, 2940, 2964

- **Anomaly for MS/MSD/MD**
  - ☐ 1. MS/MSD out of control limit, sample matrix interference suspected
  - ☐ 2. MS or MSD out of control limit, but $\overline{MS}$ is O.K.
  - ☐ 3. One of MS/MSD, and $\overline{MS}$ out of control limit, but not enough sample for re-analysis
  - ☒ 4. Not enough sample for MS/MSD, LCS/LCSD may be used
  - ☐ 5. Spiked samples contain high concentration of analytes (>4 × spiked concentration)
  - ☐ 6. MS/MSD out of control limit, but post spike is O.K.
  - ☐ 7. MS/MSD out of control limit, due to the heterogenous matrix
  - ☐ 8. MS/MSD out of control limit, due to the very special matrix
  - ☐ 9. Not enough sample for matrix duplicate (MD)
- **Anomaly for Holding time (HT)**
  - ☐ 10. HT has been exceeded when received, authorized by the Client to carry on with the analyses
  - ☐ 11. Extraction HT was passed, authorized by the Client to carry on with the analyses
  - ☐ 12. Analysis HT was passed, authorized by the Client to carry on with the analyses
- **Surrogates Anomaly**
  - ☐ 13. Surrogate recovery out of control limit (see Level-1 Part III), sample matrix interference suspected
  - ☐ 14. Surrogate recovery out of control limit (see Level-1 Part III), but not enough sample for re-analysis
  - ☐ 15. Surrogate recovery out of control limit, due to very special matrix
  - ☐ 16. Surrogate diluted out (for highly contaminated samples)
  - ☐ 17. Lower surrogate recovery due to cleanup process
- **Chromatogram Pattern Anomaly**
  - ☐ 18. Not a typical gasoline chromatogram pattern
  - ☐ 19. Not a typical diesel chromatogram pattern
  - ☐ 20. Not a typical diesel chromatogram pattern, but similar to heavy-oil or motor oil
  - ☐ 21. Not a typical kerosene chromatogram pattern
  - ☐ 22. Not a typical jet fuel chromatogram pattern
  - ☐ 23. Not a complete PCB chromatogram pattern, interference/degration suspected
- **Other anomaly**

Problem Description: _____

Reason: _____

Analyst: HL Date: 5-1-03

Note: _____

M LOG-136

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Semi-VOC Analysis Logbook

Sequence # 036229 Starting Date: 5-2-03 Time 9:57am Analyst: JWR

Seq. type: ☐ Cal. ☒ Ini. Batch ☐ Middle ☐ Final ☐ Continue ☐ Study Datafile Path: C:\HPCHEM\1\DATA\036229\

Routine Maintenance: ☐ Replace Septum ☒ Replace Liner ☐ Replace Seal ☐ Cut Guid Column ☒ Cut Column ☐ Others

Op. #	Batch-No	MTX	S Type*	Sample ID	Method**	f_2	F	A-#	Datafile	OK ?†	Note††
5321			SP	G2297P01	DFTPP625			99	G2297P01	✓	5-2-03 9:57am
5322			CCV	Q01	D105IM06			100	Q01	✓	GC14554
5323	036297	S	MB	B01			0.0333	1	B01	✓	
5324	"	"	LCS	L01			"	2	L01	✓	
5325	"	"	LCSD	J01	JWR 5/2/03		"	3	J01	✓	
5326	036230W	W	MB	~~2933~~G2304B01			0.001	4	G2304B01	✓	
5327	"	"	LCS	G2304L01			"	5	L01	✓	
5328	"	"	LCSD	J01			"	6	J01	✓	
5329	"	"		2933-05			"	7	2933-05	✓	
5330	"	"		2940-02			"	8	2940-02	✓	
5331	"	"		2946-03			"	9	2946-03	✓	
5332	036229	S		2997-02			0.0333	10	2997-02	✓	
5333	"	"		-04			"	11	-04	✓	
5334	"	"		2929-11			"	12	2929-11	✓	
5335	"	"		2920-03			"	13	2920-03	✓	
5336	"	"		-10			"	14	-10	✓	
5337	"	"		-12			"	15	-12	✓	
5338	"	"		-23			"	16	-23	✓	
5339	"	"	MS	G2297M01			"	17	G2297M01	✓	$2920-03
5340	"	"	MSD	N01			"	18	N01	✓	1
5341											
5342											
5343											
5344											
5345											
5346											
5347											
5348											
5349											
5350											

JWR 5-2-03

Footnote/Anomaly:

* Sample type such as, SP(BFB, or DFTPP), CCV, CVA, CVB, LCS, LCSD, MS, MSD, MD, CLS etc. For field samples leave as blank.

** Method name: [MMMM][S][nnn]. [MMMM] - method code, per SOP C-88. Special codes: DSL2: Diesel #2; FP30: Fuel Finger Print (C8-C30); FP40: Fuel Finger Print (C8-C40); EGLY: Ethylene Glycol; FORM: Formaldehyde; MEOH: Methyl Alcohol. [S] – APCL syatem code; [nnn] – initial calibration number.

† Specify the result of the injection is accepted (√), or denied (X), or need Re-run (R) or use as a reference data (ref).

†† Lot # for CCV/Closing, Time for SP (e.g. DFTPP) must be recorded.

M LOG-063

plied P & Ch Laboratory
Magnolia Ave. Chino CA 91710
(909) 590-1828 Fax: (909) 590-1498

Semi-VOC Analysis Logbook

nce # 02G5027 Starting Date: 12-17-02 Time 2:19 pm Analyst: J.Y.

type: ☐ Cal. ☒ Ini. Batch ☐ Middle ☐ Final ☐ Continue ☐ Study Datafile Path:

ne Maintenance: ☐ Replace Septum ☒ Replace Liner ☐ Replace Seal ☐ Cut Guid Column ☐ Cut Column ☐ Others

	Batch-No	MTX	S Type*	Sample ID	Method**	f_2	F	A-#	Datafile	OK ?†	Note††
			SP	G5027P01	DFTPP625			99	G5027P01	✓	12-17-02 2:19pm
			Cali-	M06-040	D10S1M06			1	M06-040	✓	40ppm GC14554
			↓	-030	↓			2	-030	✓	30
				-020				3	-020	✓	20
				-010				4	-010	✓	10
				-001				5	-001	✓	1
2991			CCV	G5027Q01				100	G5027Q01	✓	GC14554
2992	02G5027	W	MB	K01			0.001	6	K01	✓	
2993	↓	↓	LCS	L01			↓	7	L01	✓	
2994			LCSD	J01				8	J01	✓	
2995			MS	M01				9	M01	✓	$6556-03
2996			MSD	N01				10	N01	✓	1
2997			MS'	M02			0.000962	11	M02	✓	$6587-01
2998			MSD'	N02			↓	12	N02	✓	1
2999				6587-01				13	6587-01	✓	
3000				-02				14	-02	✓	
3001				-03				15	-03	✓	
3002				6556-01			0.002	16	6556-01	✓	
3003				-02			0.001	17	-02	✓	
3004				-03			↓	18	-03	✓	
3005				6588-01			0.000962	19	6588-01	✓	
3006				6603-01			↓	20	6603-01	✓	
3007				-02				21	-02	✓	
3008				6558-01				22	6558-01	✓	
3009				-03			0.001	23	-03	✓	
3010				6586-02			↓	24	6586-02	✓	
3011				-04				25	-04	✓	
3012				-05				26	-05	✓	
3013				-06				27	-06	R. overscale	
3014				-08				28	-08	↓	✓

Footnote/Anomaly:

* Sample type such as, SP(BFB, or DFTPP), CCV, CVA, CVB, LCS, LCSD, MS, MSD, MD, CLS etc. For field samples leave as blank.

** Method name: [MMMM][S][nnn]. [MMMM] – method code, per SOP C-88. Special codes: DSL2: Diesel #2; FP30: Fuel Finger Print (C8-C30); FP40: Fuel Finger Print (C8-C40); EGLY: Ethylene Glycol; FORM: Formaldehyde; MEOH: Methyl Alcohol. [S] – APCL system code; [nnn] – initial calibration number.

† Specify the result of the injection is accepted (√), or denied (X), or need Re-run (R) or use as a reference data (ref).

†† Lot # for CCV/Closing, Time for SP (e.g. DFTPP) must be recorded.

FILE: [CUST.DOC.GC]GC_LOG .TEX Root-File: GC_LOG_ROOT.TEX 1-Page-File:[CUST.DOC.GC]GC_LOG1.TEX
APCL form 7-101, Nov 22, 2000; Ver 5.0 No pencil. Use blue pen for record. Use red pen for correction.

Supervisor Initial [signature]