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:	32843
Project ID:	JPL	Project No:	04-4428.10	Analysis Date:	04/28/03
		Sample Matrix:	Water	Analysis Time:	17:37
Sample ID:	**03G2233-MB-01**	Batch No:	03G2233	Instrument ID:	GC/MS: G
Lab Sample ID:	03G2233-MB-01	Data File Name:	G2233K02	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	03G2233-LCS-01	03G2233-LCS-01	Lab Control Spike	G2233L01	04/28/03	15:19
2	MW-20-3MS	03-2866-5MS	Matrix Spike	G2233M01	04/28/03	15:48
3	MW-20-3MSD	03-2866-5MSD	Matrix Spike Duplicate	G2233N01	04/28/03	16:17
4	DUPE-2-2Q03	03-2843-1	Field Sample	2843-01	04/28/03	21:55
5	EB-4-4/23/03	03-2843-2	Field Sample	2843-02	04/28/03	22:24
6	MW-14-1	03-2843-3	Field Sample	2843-03	04/28/03	22:52
7	MW-14-2	03-2843-4	Field Sample	2843-04	04/28/03	23:20
8	MW-14-3	03-2843-5	Field Sample	2843-05	04/28/03	23:49
9	MW-14-4	03-2843-6	Field Sample	2843-06	04/29/03	00:17
10	MW-14-5	03-2843-7	Field Sample	2843-07	04/29/03	00:45
11	TB-4-4/23/03	03-2843-8	Field Sample	2843-08	04/29/03	01:14
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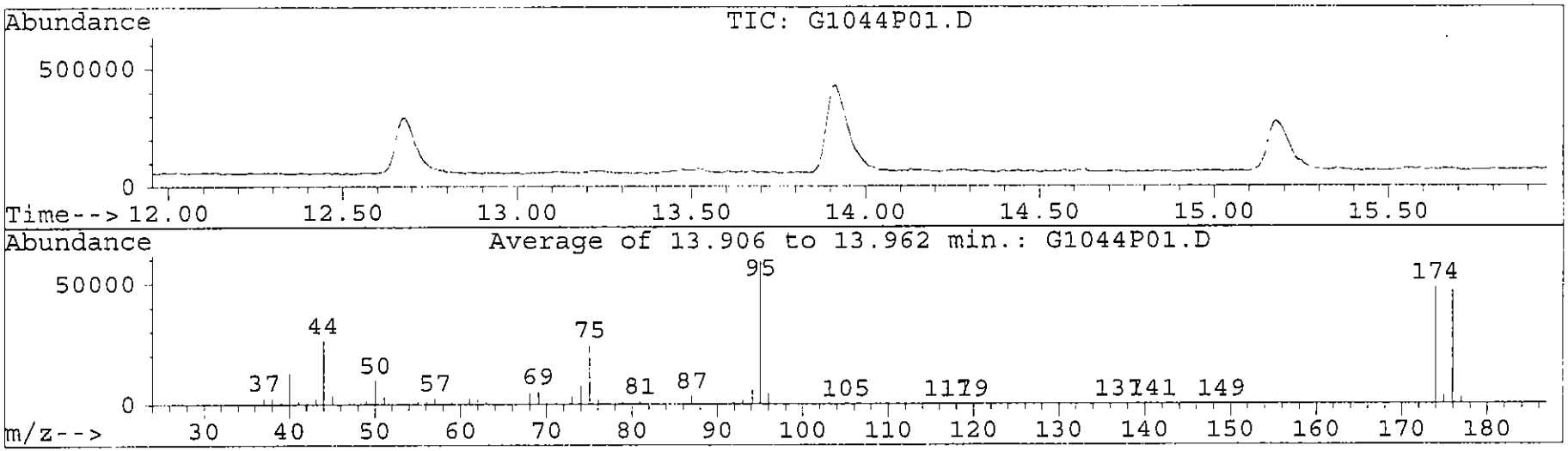
BFB

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.: 03-2843

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
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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

Response Factor Report GCMS-G

3263

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	r^2
29)		115 Di isoprop ethe	0.108	1.340	1.315	1.320	1.351	1.317	1.125	44.32	1.000
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	1.000
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	1.000
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	1.000
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	0.99 P
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	0.998
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

3266

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

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

3267

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

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	# 1/13/03
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

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

3268

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

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

3269

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

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

3270

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

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

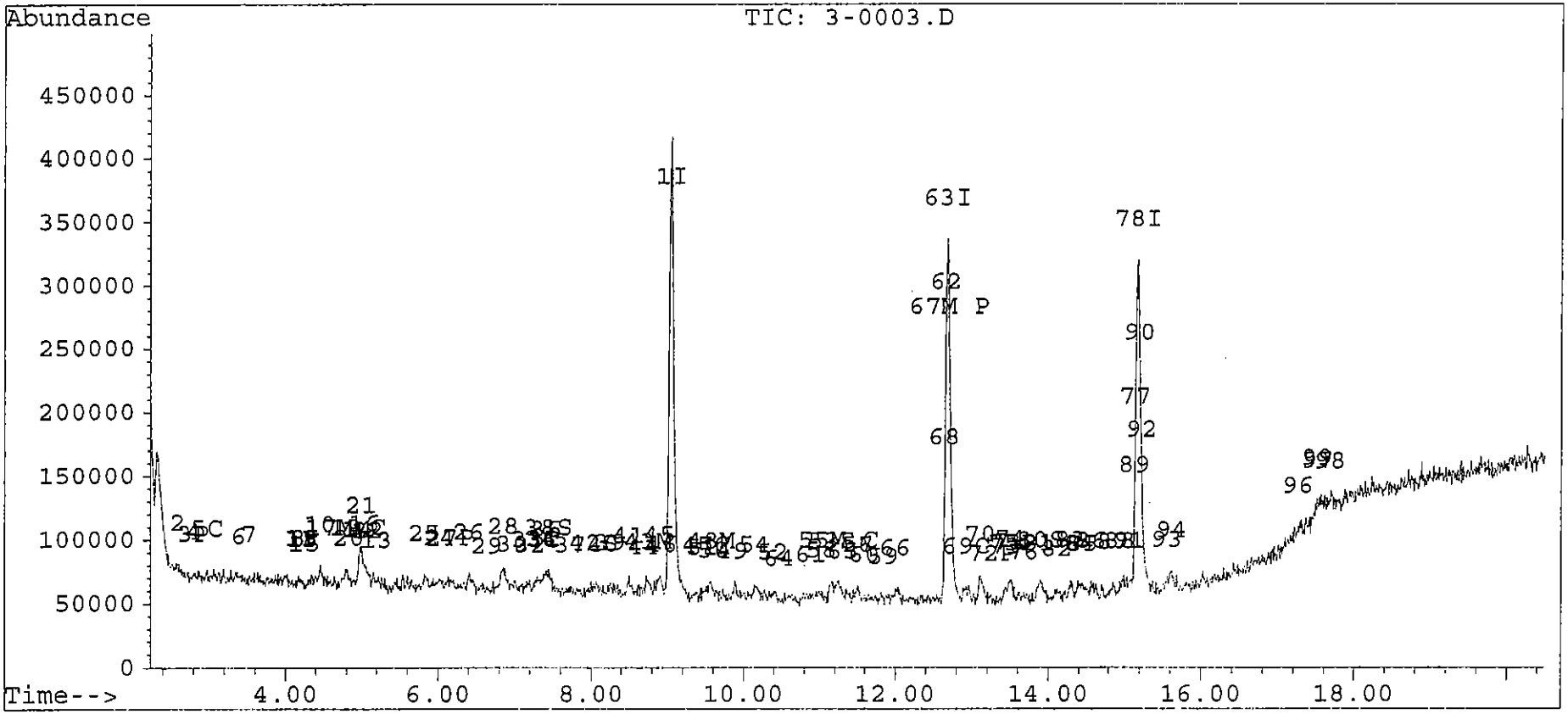
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

Quantitation Report

3271

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

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

3272

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

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	# 1/13/03
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

3273

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

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

3274

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

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	

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

1/13/03

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

3275

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

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	#

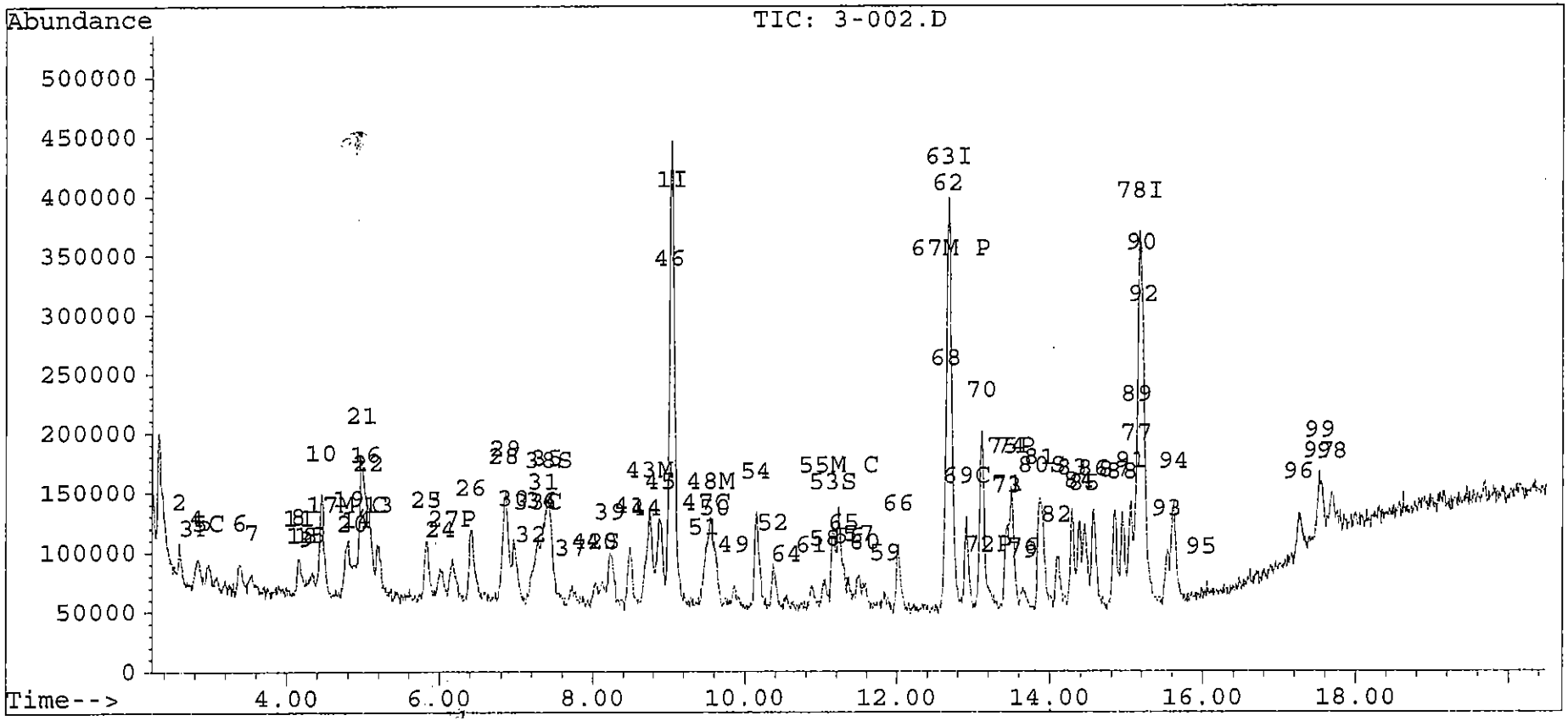
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

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

3277

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

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 4/13/03

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

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

3278

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

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

3279

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

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	

4/13/03

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

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

3280

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

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

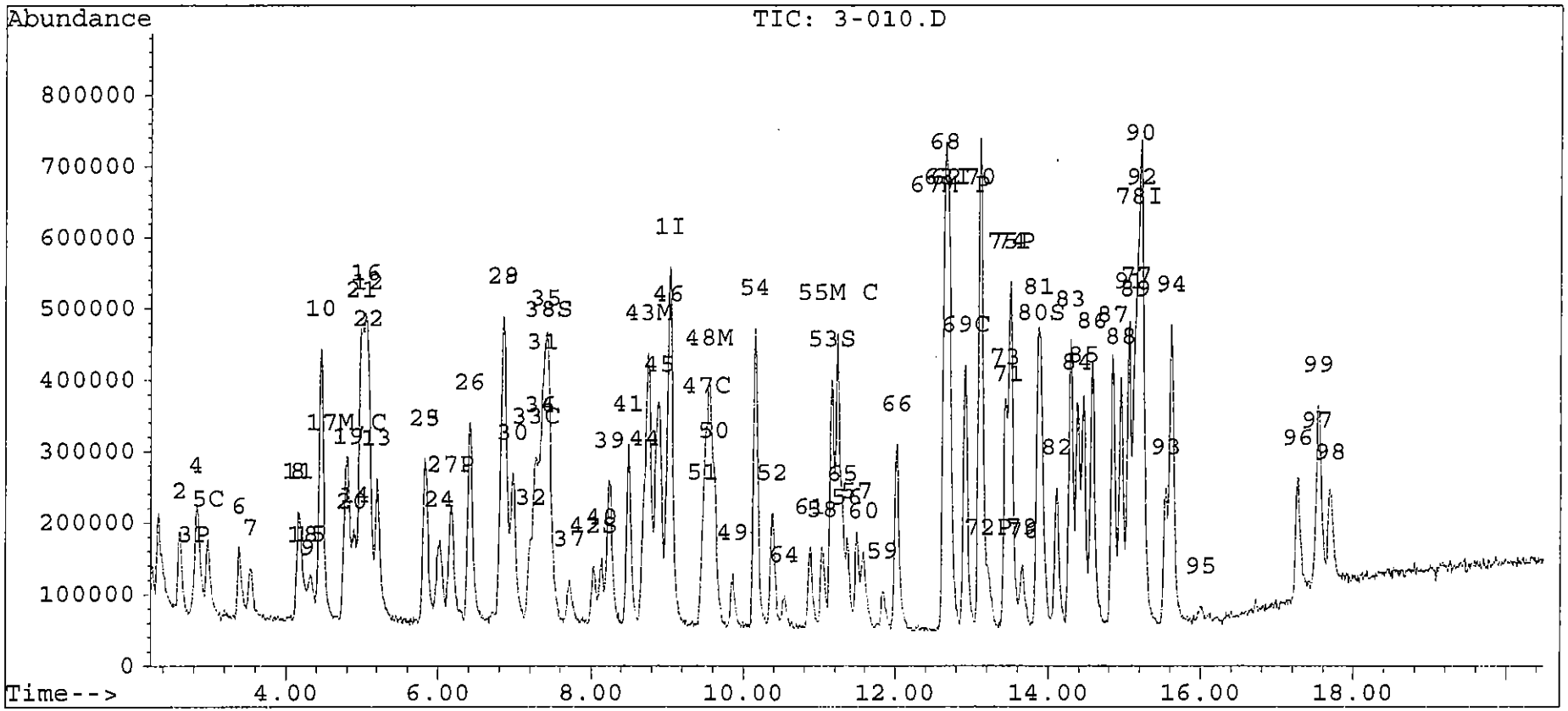
Quantitation Report

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

3281

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

3282

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

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

3283

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

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

3284

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

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

3285

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

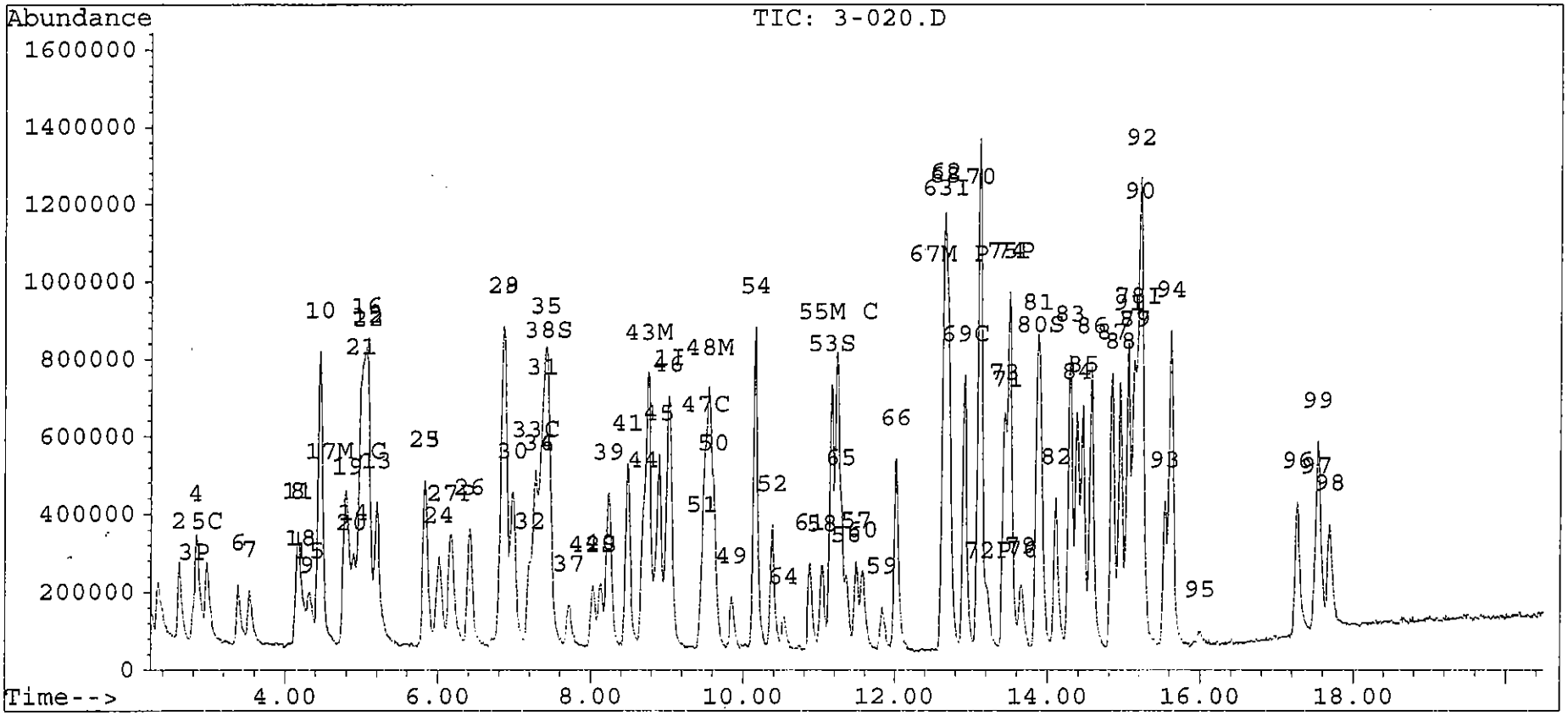
ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80 13-di-Cl-Bz 146	15.12	15.12	0.000	146	148	400.250	15.63	15.6	84	?
82	82 14-di-Cl-Bz 146	15.18	15.18	0.000	146	148	644.124	22.31	22.3	100	
81	81 sec-butylbenzene	15.05	15.05	0.000	105	134	1465.228	22.51	22.5	97	
77	77 4-iso-Pr-toluene	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 Vial: 4
Acq On : 10 Jan 03 4:24 pm Operator: Eddie
Sample : f=1 Inst : GCMS-G
Misc : Multiplr: 1.00
Quant Time: Jan 13 9:35 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



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

3287

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

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

3288

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

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

3289

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

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 4/13/03
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

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

3290

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

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	

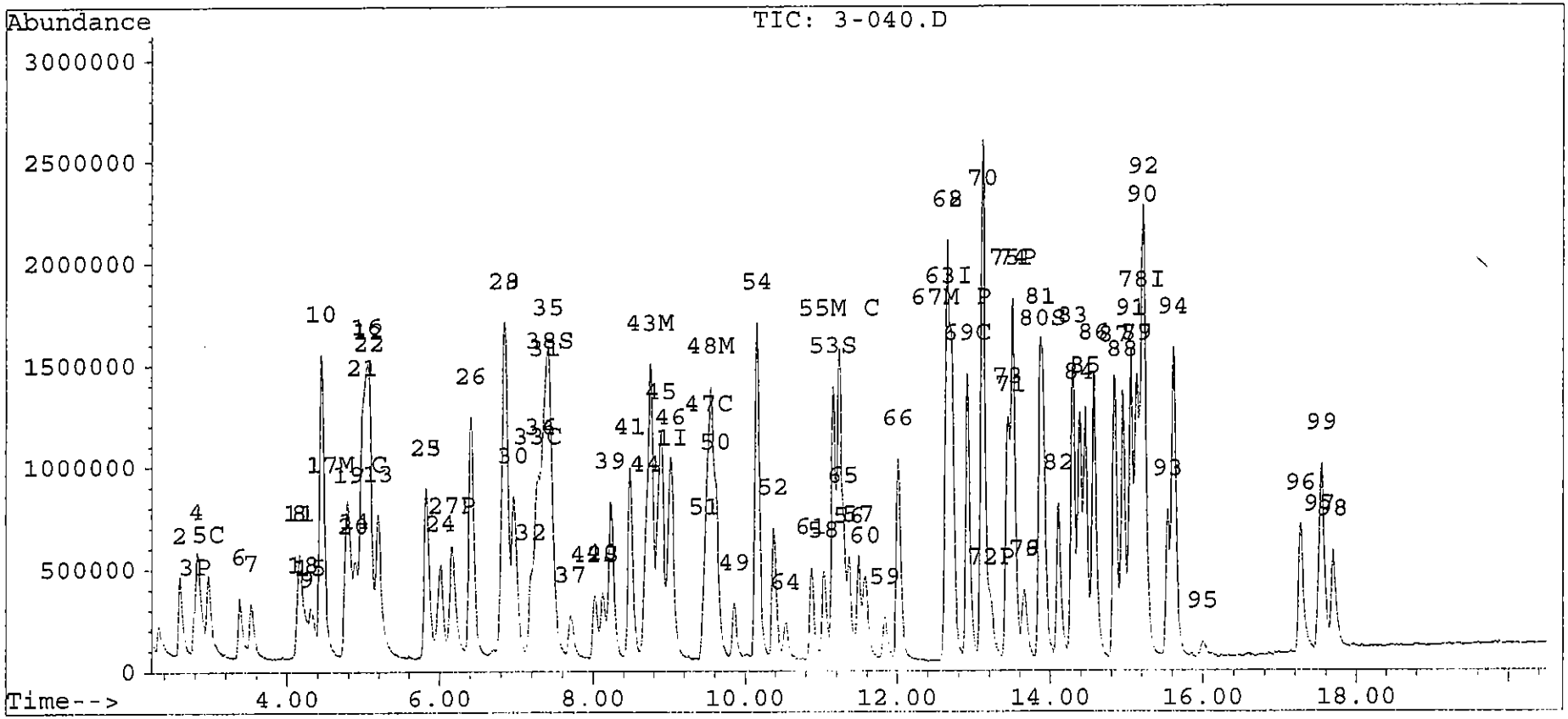
= qualifier out of range, m = manual integration, ? = RT coelution, * = DRRT > 0.06

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

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

3292

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

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	#?

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

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

3293

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

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

3294

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

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 4/13/03

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

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

3295

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

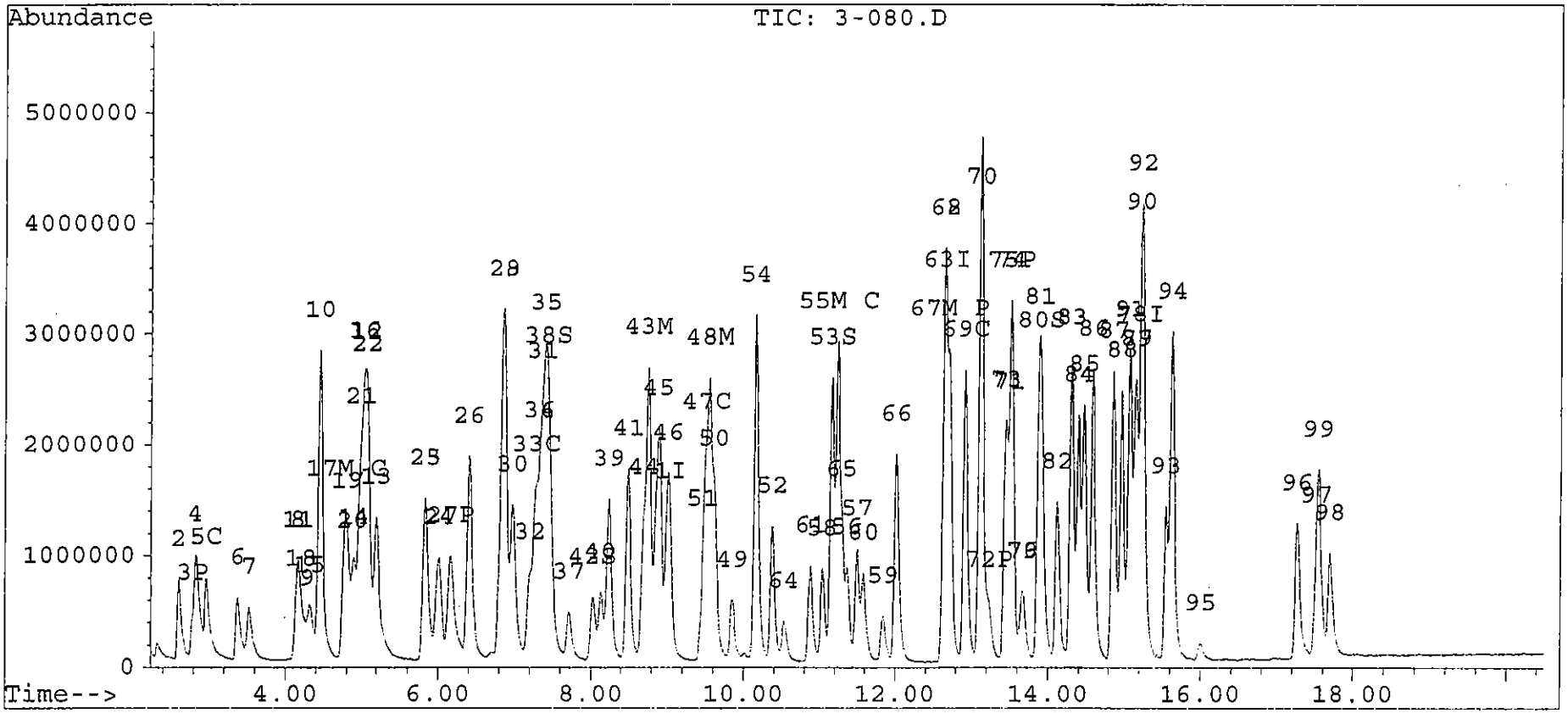
ID		Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80	13-di-Cl-Bz 146	15.14	15.12	0.002	146	148	1658.291	72.57	72.6	95	?
82	82	14-di-Cl-Bz 146	15.20	15.18	0.001	146	148	2207.723	85.68	85.7	93	
81	81	sec-butylbenzene	15.06	15.05	0.000	105	134	5499.576	94.67	94.7	96	
77	77	4-iso-Pr-toluene	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 Vial: 6
Acq On : 10 Jan 03 5:23 pm Operator: Eddie
Sample : f=1 Inst : GCMS-G
Misc : Multiplr: 1.00
Quant Time: Jan 13 9:39 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

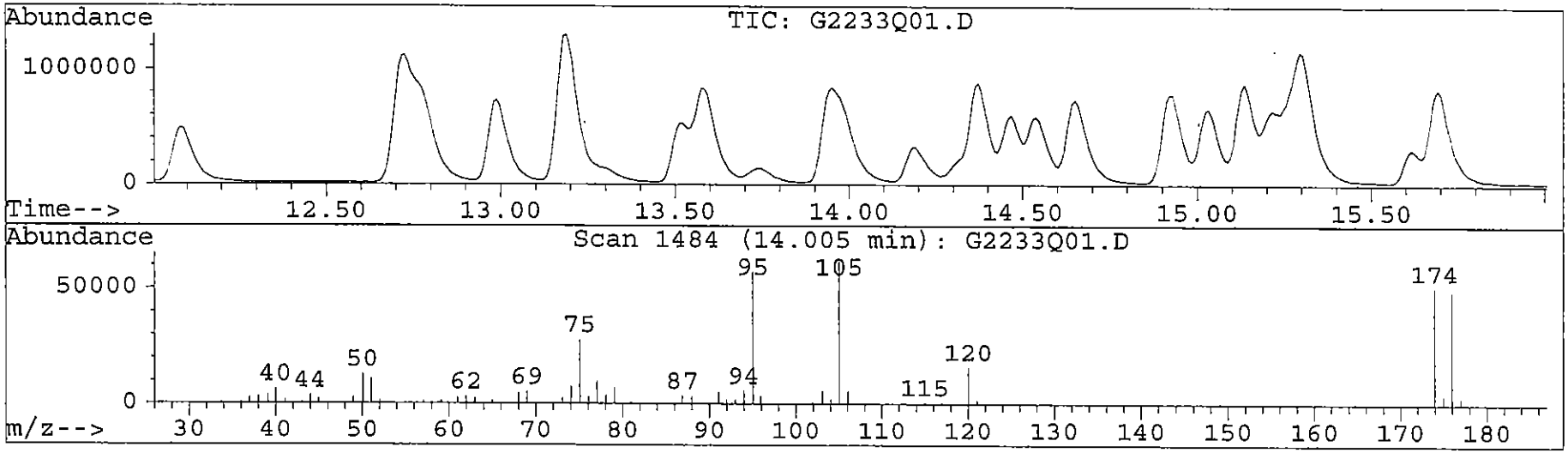


BFB

Data File : C:\HPCHEM\1\DATA\03G2233\G2233Q01.D
Acq On : 28 Apr 03 2:51 pm
Sample : f=1
Misc :

Vial: 11
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: 1484

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.2	12735	PASS
75	95	30	60	48.5	27824	PASS
95	95	100	100	100.0	57352	PASS
96	95	5	9	6.3	3585	PASS
173	174	0	2	0.0	0	PASS
174	95	50	100	88.7	50888	PASS
175	174	5	9	7.8	3981	PASS
176	174	95	101	96.0	48856	PASS
177	176	5	9	6.6	3237	PASS

G2233Q01.D E524G003.M Tue Apr 29 11:08:41 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:	032843
Project ID:	JPL	BFB Inj. Date:	04/28/03	Batch No:	03G2233
		BFB Inj. Time:	14:51	Sequence No:	03G2233
Project No:	04-4428.10	Instrument ID:	G	GC Column:	DB-VEX
Data File Name:	G2233Q01	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	03G2233-CCV-01	03G2233-CCV-01	G2233Q01	04/28/03	14:51
2	03G2233-LCS-01	03G2233-LCS-01	G2233L01	04/28/03	15:19
3	MW-20-3MS	03-2866-5MS	G2233M01	04/28/03	15:48
4	MW-20-3MSD	03-2866-5MSD	G2233N01	04/28/03	16:17
5	03G2233-MB-01	03G2233-MB-01	G2233K02	04/28/03	17:37
6	DUPE-2-2Q03	03-2843-1	2843-01	04/28/03	21:55
7	EB-4-4/23/03	03-2843-2	2843-02	04/28/03	22:24
8	MW-14-1	03-2843-3	2843-03	04/28/03	22:52
9	MW-14-2	03-2843-4	2843-04	04/28/03	23:20
10	MW-14-3	03-2843-5	2843-05	04/28/03	23:49
11	MW-14-4	03-2843-6	2843-06	04/29/03	00:17
12	MW-14-5	03-2843-7	2843-07	04/29/03	00:45
13	TB-4-4/23/03	03-2843-8	2843-08	04/29/03	01:14
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

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

3299

Data Filename: C:\HPCHEM\1\DATA\03G2233\G2233Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 28 14:51 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Apr 29 11:02 2003
Print Time : Tue Apr 29 11:04 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
Internal Standards										Dev(Min)	
1	1 Fluorobenzene I1	9.10	9.03	0.007	96	70	732.018	10.00		0.06	
47	47 Cl-benzene-d5, I2	12.74	12.66	0.006	82	119	198.153	10.00		0.08	
62	62 1,4-DCB-d4 150 15	15.25	15.15	0.007	152	150	162.771	10.00		0.10	
System Monitoring Compounds (Surrogate)										%Recovery	
27	27 Di-Br-F-Methane (	7.50	7.44	0.004	111	113	450.283	17.33	17.3	86.67%	
29	29 1,2-di-Cl-ethane-	8.10	8.02	0.005	65	102	185.844	15.37	15.4	76.83%	
55	55 toluene-d8(S2)	11.23	11.15	0.005	100	99	701.746	19.19	19.2	95.96%	
70	70 4-Br-1-F-Bz (S3)	13.99	13.90	0.006	174	95	278.294	19.14	19.1	95.68%	
Target Compounds										Qvalue	
<<< I1 : ISTD ID = 1 >>>											
3	3 di-Cl-di-F-methan	2.60	2.60	0.000	85	87	399.472	19.15	19.2	99	
4	4 Chloromethane	2.79	2.78	0.001	50	52	296.825	16.66	16.7	98	
9	9 F114 85 135	2.84	2.83	0.001	85	135	465.752	19.93	19.9	94	
5	5 vinyl chloride	2.97	2.96	0.001	62	64	294.720	17.45	17.4	98	
6	6 bromomethane	3.40	3.37	0.003	94	96	225.742	15.09	15.1	96	m
7	7 Chloroethane	3.56	3.52	0.005	64	66	243.024	19.43	19.4	100	
8	8 tri-Cl-F-methane	4.19	4.14	0.006	101	103	603.817	21.14	21.1	99	?
111	111 isopropyl alcoho	4.30	4.27	0.004	45	43	48.814	147.79	147.8	1	#
100	100 ethyl ether x5	4.49	4.44	0.006	59	74	761.471	72.98	73.0	99	
102	102 Acrolein x10	4.19	4.15	0.005	56	55	126.743	152.26	152.3	93	?
119	119 methyl acetate	5.11	5.06	0.005	43	74	173.162	19.31	19.3	93	?
104	104 Carbon disulfide	5.25	5.18	0.007	76	78	1041.337	17.06	17.1	100	m
103	103 Acrylonitrilex10	4.95	4.89	0.006	53	52	253.157	144.73	144.7	98	
95	95 Acetone x10	4.36	4.31	0.006	43	58	190.384	149.29	149.3	83	#
108	108 F-113	5.08	5.02	0.006	151	101	502.551	22.90	22.9	99	?
13	13 11-dichloroethene	4.81	4.76	0.005	61	96	551.808	19.23	19.2	98	
101	101 Acetonnitrilex10	4.26	4.20	0.006	41	40	77.058	164.15	164.1	48	#
109	109 Iodomethane	4.86	4.80	0.006	142	127	508.826	21.87	21.9	100	
113	113 Tert butyl alcoh	4.91	4.86	0.005	59	57	95.183	150.05	150.0	98	

4/29/03

= 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\03G2233\G2233Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 28 14:51 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Apr 29 11:02 2003
Print Time : Tue Apr 29 11:04 2003
Miscleneous :

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

3300

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
18	18 methylene chlorid	5.03	4.97	0.006	84	49	456.088	15.38	15.4	97	
	112 Allyl chloride	5.14	5.07	0.007	41	76	626.536	19.74	19.7	97	
200	200 Nitro methane x1	5.87	5.82	0.006	61	46	591.822	185.31	185.3	94	#?
10	10 t-Bu-Me-ether	6.05	6.00	0.005	73	57	518.239	16.74	16.7	97	
19	19 t-12-di-Cl-ethene	5.87	5.82	0.006	96	61	374.351	17.02	17.0	89	?
98	98 Vinyl acetate x5	6.46	6.41	0.006	43	86	1275.266	64.42	64.4	99	
21	21 11-dichloroethane	6.22	6.15	0.007	63	83	790.049	20.57	20.6	98	
91	91 2-butanone MEKx10	6.91	6.83	0.008	43	72	1048.265	152.69	152.7	99	?
115	115 Di isoprop ether	6.91	6.85	0.006	45	87	1678.127	17.30	17.3	98	?
22	22 c-12-di-Cl-ethene	7.03	6.97	0.007	96	61	371.096	17.24	17.2	93	
23	23 22-Dichloropropan	7.41	7.35	0.007	77	97	691.181	20.85	20.8	99	
24	24 Br-Cl-methane	7.26	7.18	0.009	128	130	114.978	14.90	14.9	97	
25	25 chloroform	7.33	7.27	0.007	83	85	683.016	17.77	17.8	100	
201	201 Ethyl acetate x2	7.37	7.31	0.007	43	61	279.905	28.60	28.6	92	?
116	116 ETBE	7.47	7.40	0.008	59	87	954.342	16.16	16.2	99	
117	117 Iso-butyl alcoho	7.37	7.31	0.007	43	42	301.253	153.82	153.8	91	#?
26	26 tetrahydrofuranx5	7.78	7.71	0.008	72	42	54.109	72.13	72.1	84	
34	34 111-tri-Cl-ethane	8.30	8.23	0.008	97	99	639.649	19.98	20.0	100	
30	30 12-dichloroethane	8.19	8.13	0.007	62	64	240.187	16.05	16.0	97	
35	35 11-Di-Cl-propene	8.55	8.48	0.008	75	110	558.188	19.95	20.0	98	
36	36 benzene	8.82	8.75	0.008	78	52	1231.060	19.35	19.4	100	
37	37 CCl4	8.76	8.68	0.009	117	119	531.526	21.69	21.7	99	
97	97 thiophene	8.96	8.89	0.007	84	58	525.115	16.60	16.6	100	
118	118 TAME	9.07	9.00	0.007	73	43	635.398	15.63	15.6	96	
39	39 12-di-Cl-propane	9.56	9.49	0.007	63	76	343.261	18.44	18.4	96	
40	40 trichloroethene	9.61	9.54	0.008	130	132	382.471	19.40	19.4	99	
96	96 Me-methacrylate	9.92	9.85	0.007	69	100	99.910	15.57	15.6	100	
42	42 Br-di-Cl-methane	9.68	9.61	0.007	83	85	419.666	16.17	16.2	100	
41	41 dibromomethane	9.51	9.45	0.006	174	172	143.767	16.01	16.0	96	
45	45 c-13-di-Cl-propen	10.44	10.37	0.008	75	110	372.632	16.28	16.3	97	
92	92 2-ClEt-Vi-ether10	10.21	10.15	0.007	63	43	292.345	74.47	74.5	98	
56	56 toluene	11.30	11.23	0.009	91	92	1114.665	18.64	18.6	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\03G2233\G2233Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 28 14:51 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Apr 29 11:02 2003
Print Time : Tue Apr 29 11:04 2003
Miscleneous :

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

3301

ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
107	107 Et methacrylate	11.43	11.36	0.008	69	99	172.095	13.91	13.9	100	
93	93 2-Hexanone x5	11.56	11.48	0.009	43	58	304.050	73.12	73.1	97	
48	48 112-tri-Cl-Et	11.11	11.03	0.009	97	83	135.027	15.38	15.4	98	
58	58 1,2-di-br-ethane	11.90	11.82	0.009	107	109	135.850	14.53	14.5	99	
51	51 di-Br-Cl-methane	11.65	11.57	0.010	129	127	187.532	15.91	15.9	100	
46	46 t-13-di-cl-propen	10.94	10.87	0.008	75	110	243.809	16.53	16.5	97	
105	105 1-Chlorohexane	12.72	12.64	0.009	55	93	416.982	23.05	23.1	98	?
<<< I2 : ISTD ID = 47 >>>											
54	54 MIBK	10.60	10.52	0.006	43	58	117.562	18.83	18.8	94	
49	49 1,3-di-cl-propane	11.37	11.29	0.006	76	78	248.028	19.15	19.1	90	m
59	59 tetra-Cl-ethene	12.08	12.00	0.006	166	168	404.885	23.22	23.2	99	
60	60 chlorobenzene	12.78	12.70	0.006	112	77	589.599	20.36	20.4	97	
61	61 1112-tetra-Cl-Et	12.71	12.62	0.007	131	133	234.827	20.25	20.2	99	?
64	64 ethylbenzene	12.99	12.90	0.007	91	106	1246.055	22.33	22.3	99	
65	65 m/p-Xylenes x2	13.19	13.10	0.007	91	106	1870.147	44.09	44.1	99	
99	99 1-4-di-Cl-butane	13.54	13.46	0.007	55	41	221.190	17.31	17.3	98	
52	52 bromoform	13.31	13.22	0.007	173	175	100.706	16.93	16.9	95	
66	66 styrene	13.51	13.43	0.007	104	78	606.469	20.25	20.2	99	
67	67 o-xylene	13.58	13.50	0.006	91	106	869.168	20.83	20.8	100	?
68	68 1122-Tetra-Cl-Et	13.59	13.51	0.007	83	85	127.254	16.60	16.6	96	?
110	110 t-1,4-dichloro-2	13.77	13.67	0.008	89	53	23.493	18.76	18.8	1	m
106	106 Cl-benzyl	15.21	15.12	0.007	91	126	191.399	19.86	19.9	96	?
<<< I3 : ISTD ID = 62 >>>											
69	69 123-tri-Cl-Pr	13.72	13.64	0.005	110	97	33.692	17.00	17.0	85	
71	71 isopropylbenzene	13.94	13.86	0.006	105	120	1316.523	24.61	24.6	100	
72	72 bromobenzene	14.19	14.10	0.006	156	158	224.925	19.16	19.2	96	
73	73 n-propylbenzene	14.37	14.29	0.006	120	78	349.090	24.21	24.2	97	
74	74 2-Cl-Tl 126 1	14.47	14.37	0.006	126	128	207.743	21.69	21.7	94	
75	75 4-Cl-Tl 126 1	14.54	14.45	0.006	126	128	263.885	20.15	20.2	99	m
76	76 135-tri-Me-Bz	14.65	14.57	0.006	105	120	961.772	22.27	22.3	100	
79	79 tert-butylbenzene	14.93	14.84	0.006	119	91	1049.329	23.67	23.7	98	
78	78 124-tri-Me-Bz	15.03	14.94	0.006	105	120	807.924	22.00	22.0	97	

= 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\03G2233\G2233Q01.D
Method : C:\HPCHEM\1\METHODS\E524G003.M
Acq. Time : Apr 28 14:51 2003
Method Update: Mon Jan 13 10:38 2003
Quant. Time : Apr 29 11:02 2003
Print Time : Tue Apr 29 11:04 2003
Miscleneous :

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

3302

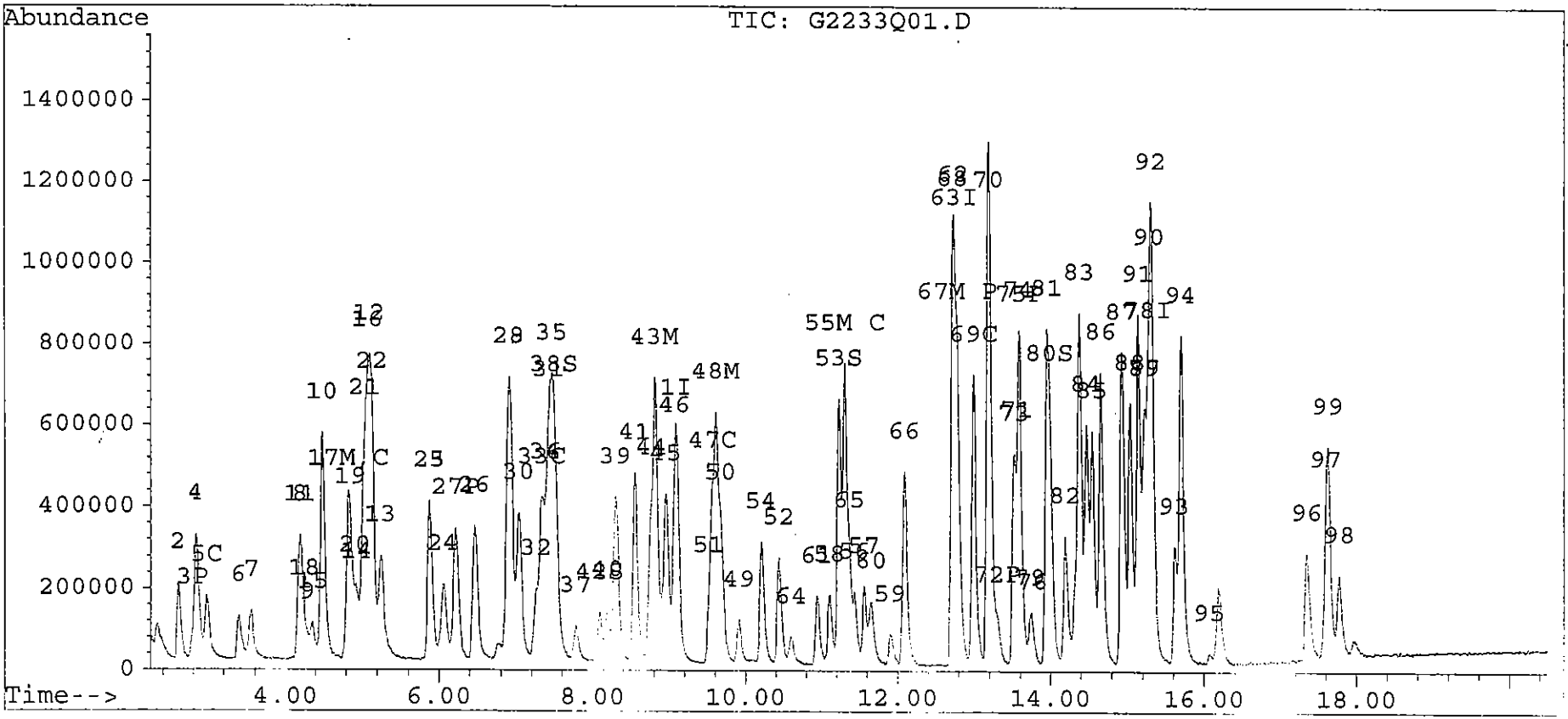
ID	Component Name	R.T.	RT0	DRRT	QIon	Q1	RF/1000	C0,ppb	C,ppb	Quality	Note
80	80 13-di-Cl-Bz 146	15.21	15.11	0.007	146	148	367.136	19.63	19.6	92	
82	82 14-di-Cl-Bz 146	15.27	15.19	0.006	146	148	496.389	18.26	18.3	93	m
81	81 sec-butylbenzene	15.14	15.04	0.006	105	134	1534.178	23.66	23.7	99	
77	77 4-iso-Pr-toluene	15.30	15.22	0.006	119	134	1098.724	23.49	23.5	99	
84	84 12-di-Cl-benzene	15.61	15.52	0.006	146	148	320.116	17.74	17.7	97	
85	85 n-butylbenzene	15.69	15.60	0.006	91	134	1130.446	23.06	23.1	98	
86	86 12-diBr-3-Cl-Pra	16.07	15.97	0.007	157	155	21.311	16.11	16.1	94	
87	87 124-tri-Cl-Bz	17.33	17.24	0.006	180	182	256.572	18.11	18.1	99	
88	88 naphthalene	17.58	17.49	0.006	128	129	206.845	19.11	19.1	99	
90	90 123-tri-Cl-Bz	17.76	17.68	0.005	180	182	189.975	19.32	19.3	98	
89	89 hx-Cl-butadiene	17.61	17.52	0.006	225	260	283.361	26.47	26.5	96	

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

Data File : C:\HPCHEM\1\DATA\03G2233\G2233Q01.D Vial: 11
Acq On : 28 Apr 03 2:51 pm Operator: Eddie
Sample : f=1 Inst : GCMS-G
Misc : Multiplr: 1.00
Quant Time: Apr 29 11:02 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

3303



Continuing Calibration Concentration Summary

Data File G2233Q01.D
Method File E524G003

Compound Name	Amount	Actual	Units	%Dev	Target Response
1 Fluorobenzene I1 1	10	10.00	ppb	0.00	732018
3 di-Cl-di-F-methane 85 87	20	19.15	ppb	4.24	399472
4 Chloromethane 50 52	20	16.66	ppb	16.68	296825
9 F114 85 135	20	19.93	ppb	0.37	465752
5 vinyl chloride 62 64	20	17.45	ppb	12.76	294720
6 bromomethane 94 96	20	15.09	ppb	24.57	225742
7 Chloroethane 64 66	20	19.43	ppb	2.84	243024
8 tri-Cl-F-methane 101 103	20	21.14	ppb	5.71	603817
111 isopropyl alcohol x10	200	147.79	ppb	26.11	48814
100 ethyl ether x5	100	72.98	ppb	27.02	761471
102 Acrolein x10	200	152.26	ppb	23.87	126743
119 methyl acetate	20	19.31	ppb	3.44	173162
104 Carbon disulfide	20	17.06	ppb	14.68	1041337
103 Acrylonitrilex10	200	144.73	ppb	27.63	253157
95 Acetone x10	200	149.29	ppb	25.35	190384
108 F-113	20	22.90	ppb	14.51	502551
13 11-dichloroethene 61 96	20	19.23	ppb	3.86	551808
101 Acetonnitrilex10	200	164.15	ppb	17.93	77058
109 Iodomethane	20	21.87	ppb	9.36	508826
113 Tert butyl alcohol x10	200	150.05	ppb	24.98	95183
18 methylene chloride 49 84	20	15.38	ppb	23.11	456088
112 Allyl chloride	20	19.74	ppb	1.31	626536
200 Nitro methane x10	200	185.31	ppb	7.35	591822
10 t-Bu-Me-ether 73 57	20	16.74	ppb	16.30	518239
19 t-12-di-Cl-ethene 96 61	20	17.02	ppb	14.92	374351
98 Vinyl acetate x5	100	64.42	ppb	35.58	1275266
21 11-dichloroethane 63 83	20	20.57	ppb	2.84	790049
91 2-butanone MEKx10	200	152.69	ppb	23.65	1048265
115 Di isoprop ether	20	17.30	ppb	13.48	1678127
22 c-12-di-Cl-ethene 96 61	20	17.24	ppb	13.80	371096
23 22-Dichloropropane 77 97	20	20.85	ppb	4.25	691181
24 Br-Cl-methane 128 130	20	14.90	ppb	25.52	114978
25 chloroform 83 85	20	17.77	ppb	11.15	683016
201 Ethyl acetate x2	40	28.60	ppb	28.50	279905
116 ETBE	20	16.16	ppb	19.21	954342
117 Iso-butyl alcohol X10	200	153.82	ppb	23.09	301253
26 tetrahydrofuranx5	100	72.13	ppb	27.87	54109
27 Di-Br-F-Methane (S1) 111 1	20	17.33	ppb	13.33	450283
34 111-tri-Cl-ethane 97 99	20	19.98	ppb	0.10	639649
30 12-dichloroethane 64 62	20	16.05	ppb	19.76	240187
35 11-Di-Cl-propene 75 110	20	19.95	ppb	0.24	558188
29 1,2-di-Cl-ethane-d4 [Surr] 10	20	15.37	ppb	23.17	185844
36 benzene 78 52	20	19.35	ppb	3.24	1231060
37 CCl4 117 119	20	21.69	ppb	8.45	531526

97 thiophene	20	16.60	ppb	16.98	525115
118 TAME	20	15.63	ppb	21.87	635398
39 12-di-Cl-propane 63 76	20	18.44	ppb	7.80	343261
40 trichloroethene 130 132	20	19.40	ppb	2.98	382471
96 Me-methacrylate	20	15.57	ppb	22.16	99910
42 Br-di-Cl-methane 83 85	20	16.17	ppb	19.17	419666
41 dibromomethane 174 172	20	16.01	ppb	19.94	143767
45 c-13-di-Cl-propene 75 110	20	16.28	ppb	18.61	372632
55 toluene-d8(S2) 100 99	20	19.19	ppb	4.04	701746
92 2-ClEt-Vi-ether10	200	74.47	ppb	62.77	292345

Compound Name	Amount	Actual	Units	%Dev	Target Response
56 toluene 91 92	20	18.64	ppb	6.78	1114665
107 Et methacrylate	20	13.91	ppb	30.45	172095
93 2-Hexanone x5	100	73.12	ppb	26.88	304050
48 112-tri-Cl-Et 97 83	20	15.38	ppb	23.10	135027
58 1,2-di-br-ethane 107 109	20	14.53	ppb	27.34	135850
51 di-Br-Cl-methane 129 127	20	15.91	ppb	20.43	187532
46 t-13-di-cl-propene 75 110	20	16.53	ppb	17.37	243809
105 1-Chlorohexane	20	23.05	ppb	15.27	416982
47 Cl-benzene-d5, I2	10	10.00	ppb	0.00	198153
54 MIBK	20	18.83	ppb	5.86	117562
49 1,3-di-cl-propane 76 78	20	19.15	ppb	4.27	248028
59 tetra-Cl-ethene 166 168	20	23.22	ppb	16.09	404885
60 chlorobenzene 112 77	20	20.36	ppb	1.80	589599
61 1112-tetra-Cl-Et 131 133	20	20.25	ppb	1.24	234827
64 ethylbenzene 91 106	20	22.33	ppb	11.67	1246055

Compound Name	Amount	Actual	Units	%Dev	Target Response
65 m/p-Xylenes x2	40	44.09	ppb	10.22	1870147
99 1-4-di-Cl-butane	20	17.31	ppb	13.47	221190
52 bromoform 173 175	20	16.93	ppb	15.36	100706
66 styrene 104 78	20	20.25	ppb	1.24	606469
67 o-xylene 91 106	20	20.83	ppb	4.13	869168
68 1122-Tetra-Cl-Et 83 85	20	16.60	ppb	16.98	127254
110 t-1,4-dichloro-2-butene	20	18.76	ppb	6.20	23493
106 Cl-benzyl	20	19.86	ppb	0.70	191399
62 1,4-DCB-d4 150 152 I3	10	10.00	ppb	0.00	162771
69 123-tri-Cl-Pr 110 97	20	17.00	ppb	15.00	33692
70 4-Br-1-F-Bz (S3) 174 95	20	19.14	ppb	4.32	278294
71 isopropylbenzene 105 120	20	24.61	ppb	23.07	1316523
72 bromobenzene 156 158	20	19.16	ppb	4.22	224925
73 n-propylbenzene 120 78	20	24.21	ppb	21.05	349090
74 2-Cl-Tl 126 128	20	21.69	ppb	8.43	207743
75 4-Cl-Tl 126 128	20	20.15	ppb	0.76	263885
76 135-tri-Me-Bz 105 120	20	22.27	ppb	11.35	961772
79 tert-butylbenzene 119 91	20	23.67	ppb	18.34	1049329
78 124-tri-Me-Bz 105 120	20	22.00	ppb	10.02	807924
80 13-di-Cl-Bz 146 148	20	19.63	ppb	1.86	367136
82 14-di-Cl-Bz 146 148	20	18.26	ppb	8.69	496389
81 sec-butylbenzene 105 134	20	23.66	ppb	18.32	1534178

77 4-iso-Pr-toluene	119 134	20	23.49	ppb	17.44	1098724
84 12-di-Cl-benzene	146 148	20	17.74	ppb	11.32	320116
85 n-butylbenzene	91 134	20	23.06	ppb	15.30	1130446
86 12-diBr-3-Cl-Pra	157 155	20	16.11	ppb	19.44	21311
87 124-tri-Cl-Bz	180 182	20	18.11	ppb	9.45	256572
88 naphthalene	128 129	20	19.11	ppb	4.47	206845
90 123-tri-Cl-Bz	180 182	20	19.32	ppb	3.42	189975
				Ave.% Dev	12.74	

Evaluate Continuing Calibration Report

3307

Data File : C:\HPCHEM\1\DATA\03G2233\G2233Q01.D Vial: 11
Acq On : 28 Apr 03 2:51 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	99	0.00
2		3 di-Cl-di-F-methane 85 8	0.308	0.273	11.5	93	0.00
3	P	4 Chloromethane 50 5	0.243	0.203	16.7	79	0.00
4		9 F114 85 135	0.319	0.318	0.4	101	0.00
5	C	5 vinyl chloride 62 6	0.231	0.201	12.8	86	0.00
6		6 bromomethane 94 9	0.227	0.154	32.2#	80	0.00
7		7 Chloroethane 64 66	0.171	0.166	2.8	97	0.00
8		8 tri-Cl-F-methane 101 10	0.390	0.412	-5.7	99	0.00
9		111 isopropyl alcohol x10	0.005	0.003#	26.1#	88	0.00
10		100 ethyl ether x5	0.143	0.104	27.0#	78	0.00
11		102 Acrolein x10	0.011	0.009#	23.9#	59	0.00
12		119 methyl acetate	0.128	0.118	7.5	93	0.00
13		104 Carbon disulfide	0.834	0.711	14.7	89	0.00
14		103 Acrylonitrilex10	0.024	0.017#	27.6#	73	0.00
15		95 Acetone x10	0.019	0.013#	31.4#	71	0.00
16		108 F-113	0.300	0.343	-14.5	105	0.00
17	M,C	13 11-dichloroethene 61 9	0.392	0.377	3.9	96	0.00
18		101 Acetonnitrilex10	0.006	0.005#	13.5	79	0.00
19		109 Iodomethane	0.311	0.348	-11.8	107	0.00
20		113 Tert butyl alcohol x10	0.009	0.007#	29.4#	71	0.00
21		18 methylene chloride 49 8	0.643	0.312	51.5#	76	0.00
22		112 Allyl chloride	0.434	0.428	1.3	102	0.00
23		200 Nitro methane x10	0.044	0.040#	7.3	93	0.00
24		10 t-Bu-Me-ether 73 57	0.498	0.354	28.9#	84	0.00
25		19 t-12-di-Cl-ethene 96 6	0.301	0.256	14.9	85	0.00
26		98 Vinyl acetate x5	0.270	0.174	35.6#	110	0.00
27	P	21 11-dichloroethane 63 8	0.525	0.540	-2.8	101	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03G2233\G2233Q01.D Vial: 11
Acq On : 28 Apr 03 2:51 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	0.072	23.7#	81	0.00
29		115 Di isoprop ether	1.125	1.146	-1.9	86	0.00
30		22 c-12-di-Cl-ethene 96 6	0.294	0.253	13.8	86	0.00
31		23 22-Dichloropropane 77 9	0.453	0.472	-4.2	112	0.00
32		24 Br-Cl-methane 128 13	0.094	0.079	16.2	75	0.00
33	C	25 chloroform 83 8	0.525	0.467	11.1	95	0.00
34		201 Ethyl acetate x2	0.134	0.096	28.5#	94	0.00
35		116 ETBE	0.807	0.652	19.2	83	0.00
36		117 Iso-butyl alcohol X10	0.027	0.021#	23.1#	101	0.00
37		26 tetrahydrofuranx5	0.010	0.007#	27.9#	72	0.00
38	S	27 Di-Br-F-Methane (S1) 11	0.400	0.308	23.1#	87	0.00
39		34 111-tri-Cl-ethane 97 9	0.437	0.437	0.1	106	0.00
40		30 12-dichloroethane 64 6	0.175	0.164	6.1	81	0.00
41		35 11-Di-Cl-propene 75 11	0.382	0.381	0.2	102	0.00
42	S	29 1,2-di-Cl-ethane-d4 [Sur	0.165	0.127	23.2#	77	0.00
43	M	36 benzene 78 5	0.869	0.841	3.2	96	0.00
44		37 CCl4 117 11	0.335	0.363	-8.5	108	0.00
45		97 thiophene	0.432	0.359	17.0	84	0.00
46		118 TAME	0.556	0.434	21.9#	80	0.00
47	C	39 12-di-Cl-propane 63 7	0.254	0.234	7.8	91	0.00
48	M	40 trichloroethene 130 13	0.269	0.261	3.0	95	0.00
49		96 Me-methacrylate	0.095	0.068	28.5#	81	0.00
50		42 Br-di-Cl-methane 83 8	0.355	0.287	19.2	87	0.00
51		41 dibromomethane 174 17	0.123	0.098	19.9	74	0.00
52		45 c-13-di-Cl-propene 75 11	0.313	0.255	18.6	84	0.00
53	S	55 toluene-d8(S2) 100	0.500	0.479	4.0	97	0.00
54		92 2-ClEt-Vi-ether10	0.054	0.020#	62.8#	36	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03G2233\G2233Q01.D Vial: 11
Acq On : 28 Apr 03 2:51 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)
55	M C	56 toluene 91 9	0.817	0.761	6.8	97	0.00
56		107 Et methacrylate	0.169	0.118	30.4#	104	0.00
57		93 2-Hexanone x5	0.057	0.042#	26.9#	83	0.00
58		48 112-tri-Cl-Et 97 8	0.141	0.092	34.4#	78	0.00
59		58 1,2-di-br-ethane 107 109	0.114	0.093	18.8	71	0.00
60		51 di-Br-Cl-methane 129 12	0.161	0.128	20.4#	77	0.00
61		46 t-13-di-cl-propene 75 11	0.202	0.167	17.4	81	0.00
62		105 1-Chlorohexane	0.310	0.285	8.2	111	0.00
63	I	47 Cl-benzene-d5, I2	1.000	1.000	0.0	88	0.00
64		54 MIBK	0.297	0.297	0.0	82	0.00
65		49 1,3-di-cl-propane 76 78	0.654	0.626	4.3	80	0.00
66		59 tetra-Cl-ethene 166 16	0.880	1.022	-16.1	97	0.00
67	M P	60 chlorobenzene 112 7	1.461	1.488	-1.8	88	0.00
68		61 1112-tetra-Cl-Et 131 13	0.585	0.593	-1.2	83	0.00
69	C	64 ethylbenzene 91 10	2.816	3.144	-11.7	101	0.00
70		65 m/p-Xylenes x2	2.141	2.359	-10.2	98	0.00
71		99 1-4-di-Cl-butane	0.645	0.558	13.5	80	0.00
72	P	52 bromoform 173 17	0.274	0.254	7.2	70	0.00
73		66 styrene 104 7	1.512	1.530	-1.2	89	0.00
74		67 o-xylene 91 10	2.106	2.193	-4.1	95	0.00
75	P	68 1122-Tetra-Cl-Et 83 8	0.387	0.321	17.0	73	0.00
76		110 t-1,4-dichloro-2-butene	0.081	0.059	26.4#	87	0.00
77		106 Cl-benzyl	0.572	0.483	15.5	80	0.00
78	I	62 1,4-DCB-d4 150 152 I3	1.000	1.000	0.0	88	0.00
79		69 123-tri-Cl-Pr 110 9	0.122	0.103	15.0	74	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03G2233\G2233Q01.D Vial: 11
Acq On : 28 Apr 03 2:51 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)
80	S	70 4-Br-1-F-Bz (S3)	174 9	0.893	0.855	4.3	85	0.00
81		71 isopropylbenzene	105 12	3.286	4.044	-23.1#	108	0.00
82		72 bromobenzene	156 15	0.721	0.691	4.2	79	0.00
83		73 n-propylbenzene	120 7	0.886	1.072	-21.1#	104	0.00
84		74 2-Cl-Tl	126 128	0.589	0.638	-8.4	103	0.00
85		75 4-Cl-Tl	126 128	0.804	0.811	-0.8	91	0.00
86		76 135-tri-Me-Bz	105 12	2.653	2.954	-11.3	99	0.00
87		79 tert-butylbenzene	119 9	2.724	3.223	-18.3	103	0.00
88		78 124-tri-Me-Bz	105 12	2.256	2.482	-10.0	95	0.00
89		80 13-di-Cl-Bz	146 148	1.149	1.128	1.9	92	0.00
90		82 14-di-Cl-Bz	146 148	1.670	1.525	8.7	77	0.00
91		81 sec-butylbenzene	105 13	3.983	4.713	-18.3	105	0.00
92		77 4-iso-Pr-toluene	119 13	2.874	3.375	-17.4	101	0.00
93		84 12-di-Cl-benzene	146 14	1.109	0.983	11.3	78	0.00
94		85 n-butylbenzene	91 13	3.012	3.473	-15.3	103	0.00
95		86 12-diBr-3-Cl-Pra	157 15	0.081	0.065	19.4	68	0.00
96		87 124-tri-Cl-Bz	180 18	0.792	0.788	0.5	80	0.00
97		88 naphthalene	128 12	0.665	0.635	4.5	84	0.00
98		90 123-tri-Cl-Bz	180 18	0.604	0.584	3.4	79	0.00
99		89 hx-Cl-butadiene	225 26	0.621	0.870	-40.3#	116	0.00

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

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:	032843
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		CCV Data File:	G2233Q01	Instrument ID:	G

Batch No: 03G2233

#	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			04/28/03 14:51	732018	9.10	198153	12.74	162771	15.25
CCV Upper Limit				1464036	9.60	396306	13.24	325542	15.75
CCV Lower Limit				366009	8.60	99076	12.24	81385	14.75
1	03G2233-LCS-01	03G2233-LCS-01	04/28/03 15:19	690083	9.09	189127	12.75	154498	15.24
2	MW-20-3MS	03-2866-5MS	04/28/03 15:48	702271	9.11	198407	12.75	163321	15.25
3	MW-20-3MSD	03-2866-5MSD	04/28/03 16:17	711756	9.10	188117	12.74	156706	15.24
4	03G2233-MB-01	03G2233-MB-01	04/28/03 17:37	685618	9.10	180325	12.75	143101	15.24
5	DUPE-2-2Q03	03-2843-1	04/28/03 21:55	759953	9.08	208715	12.73	161113	15.23
6	EB-4-4/23/03	03-2843-2	04/28/03 22:24	767240	9.09	211565	12.73	166968	15.23
7	MW-14-1	03-2843-3	04/28/03 22:52	688574	9.08	194032	12.73	148590	15.22
8	MW-14-2	03-2843-4	04/28/03 23:20	778382	9.07	213743	12.72	169532	15.21
9	MW-14-3	03-2843-5	04/28/03 23:49	739902	9.07	206383	12.72	160657	15.21
10	MW-14-4	03-2843-6	04/29/03 00:17	738107	9.07	200531	12.72	155725	15.21
11	MW-14-5	03-2843-7	04/29/03 00:45	787984	9.07	214645	12.72	167929	15.21
12	TB-4-4/23/03	03-2843-8	04/29/03 01:14	769343	9.08	215557	12.71	164962	15.20
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	$V_i/X=f_1$	$V_f/V_i=f_2$	$V_{spg}/V_{inj}=f_3$	F	A-#	Datafile	Note	pH
2377	SP	G1044P01	E524G-	25/25=1	/ =	/ =	1		G1044P01	1/10/03 1:5 lpm	
2378	Calib	3-0003	003	/ =	/ =	/ =			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/ICV/nFB GC14721	
2385	MS	M01		/ =	/ =	/ =			M01	S1011-03	<2
2386	LCS	L01		/ =	/ =	/ =			L01		
2387	MSD	N01		/ =	/ =	/ =			N01	S1011-03	<2
2388	MB	K01		/ =	/ =	/ =			K01		
2389	Sample	1084-03		/ =	/ =	/ =			1084-03		<2
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	500 × 2.5 /X= 10 ppb		GC-	× /X= ppb
MS/MSD	2385/2387	GC-14721	× /X= 25 ppb		GC-	× /X= ppb

Footnote/Anomaly:

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

VOC Analysis General Logbook

Sequence # 032 2233 Batch # 032 2233 Matrix: W Date: 04/28/03 Analyst: Eddie

Lot #: IS/Surrogate: GC-14577/14588 Methanol(mark-*M*): _____ PEG (mark-*PEG*): _____ Defoaming(mark-*DF*): _____

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

Op. #	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
3689	SP	G2233P01	E524.2 053	25/25 = 1	/ =	/ =	1		G2233P01	4/28/03	
3690	CCV	Q01		/ =	/ =	/ =			Q01	gc1587	2:51pm
3691	LCS	L01		/ =	/ =	/ =			L01		
3692	MS	M01		/ =	/ =	/ =			M01	2866-05	<2
3693	MSD	N01		/ =	/ =	/ =			N01	↓	↓
3694	MB	K01		/ =	/ =	/ =			K01		
3695	Sample	2866-02		/ =	/ =	/ =			2866-02		<2
3696		03		/ =	/ =	/ =			03		
3697		04		/ =	/ =	/ =			04		
3698		05		/ =	/ =	/ =			05		
3699		06		/ =	/ =	/ =			06		
3700		07		/ =	/ =	/ =			07		
3701		08		/ =	/ =	/ =			08		
3702		2843-01		/ =	/ =	/ =			2843-01		
3703		02		/ =	/ =	/ =			02		
3704		03		/ =	/ =	/ =			03		
3705		04		/ =	/ =	/ =			04		
3706		05		/ =	/ =	/ =			05		
3707		06		/ =	/ =	/ =			06		
3708		07		/ =	/ =	/ =			07		
3709		08		/ =	/ =	/ =			08		
3710		2866-01		/ =	/ =	/ =			2866-01		
3711				/ =	/ =	/ =					
3712				/ =	/ =	/ =					
3713				/ =	/ =	/ =					
3714				/ =	/ =	/ =					
3715				/ =	/ =	/ =					
3716				/ =	/ =	/ =					
3717				/ =	/ =	/ =					
3718				/ =	/ =	/ =					
3719				/ =	/ =	/ =					
3720				/ =	/ =	/ =					

05/01/03

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	3691	GC-15088	200 × 25 /X= 20 ppb		GC-	× /X= ppb
MS/MSD	3692/3693	GC-15088	200 × 25 /X= 20 ppb		GC-	× /X= ppb

Footnote/Anomaly:

Level C Data Package Deliverables

Metals

Applied P & Ch Laboratory

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Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	04/29/2003
Project ID:	JPL	Service ID:	32843	Collected by:	
		Lab Sample ID:	03M1402-MB-01	Received Date:	04/29/2003
Sample ID:	**03M1402-MB-01**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Method Blank				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	µg/L	5	< 5	U	F		03M1402E	04/29/03	04/29/03	1	200.9
CALCIUM	7440-70-2	µg/L	200	118	B	P		03M1374L	04/25/03	04/25/03	1	200.7
IRON	7439-89-6	µg/L	50	< 50	U	P		03M1374L	04/25/03	04/25/03	1	200.7
MAGNESIUM	7439-95-4	µg/L	100	< 100	U	P		03M1374L	04/25/03	04/25/03	1	200.7
POTASSIUM	7440-09-7	µg/L	400	15.0	B	P		03M1374L	04/25/03	04/25/03	1	200.7
SODIUM	7440-23-5	µg/L	2000	< 2000	U	P		03M1374L	04/25/03	04/25/03	1	200.7

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

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	04/23/2003
Project ID:	JPL	Service ID:	32843	Collected by:	Leo Williamson
		Lab Sample ID:	03-2843-1	Received Date:	04/23/2003
Sample ID:	**DUPE-2-2Q03**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	µg/L	5	< 5	U	F		03M1402E	04/29/03	04/29/03	1	200.9
CALCIUM	7440-70-2	µg/L	200	96500		P		03M1374L	04/25/03	04/25/03	1	200.7
IRON	7439-89-6	µg/L	50	19.2	B	P		03M1374L	04/25/03	04/25/03	1	200.7
MAGNESIUM	7439-95-4	µg/L	100	39800		P		03M1374L	04/25/03	04/25/03	1	200.7
POTASSIUM	7440-09-7	µg/L	400	3630		P		03M1374L	04/25/03	04/25/03	1	200.7
SODIUM	7440-23-5	µg/L	2000	36600		P		03M1374L	04/25/03	04/25/03	1	200.7

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

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	04/23/2003
Project ID:	JPL	Service ID:	32843	Collected by:	Leo Williamson
		Lab Sample ID:	03-2843-2	Received Date:	04/23/2003
Sample ID:	**EB-4-4/23/03**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	µg/L	5	< 5	U	F		03M1402E	04/29/03	04/29/03	1	200.9
CALCIUM	7440-70-2	µg/L	200	98.0	B	P		03M1374L	04/25/03	04/25/03	1	200.7
IRON	7439-89-6	µg/L	50	1.9	B	P		03M1374L	04/25/03	04/25/03	1	200.7
MAGNESIUM	7439-95-4	µg/L	100	15.1	B	P		03M1374L	04/25/03	04/25/03	1	200.7
POTASSIUM	7440-09-7	µg/L	400	27.8	B	P		03M1374L	04/25/03	04/25/03	1	200.7
SODIUM	7440-23-5	µg/L	2000	430	B	P		03M1374L	04/25/03	04/25/03	1	200.7

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

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	04/23/2003
Project ID:	JPL	Service ID:	32843	Collected by:	Leo Williamson
		Lab Sample ID:	03-2843-3	Received Date:	04/23/2003
Sample ID:	**MW-14-1**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	µg/L	5	< 5	U	F		03M1402E	04/29/03	04/29/03	1	200.9
CALCIUM	7440-70-2	µg/L	200	142000		P		03M1374L	04/25/03	04/25/03	1	200.7
IRON	7439-89-6	µg/L	50	32.4	B	P		03M1374L	04/25/03	04/25/03	1	200.7
MAGNESIUM	7439-95-4	µg/L	100	45000		P		03M1374L	04/25/03	04/25/03	1	200.7
POTASSIUM	7440-09-7	µg/L	400	3130		P		03M1374L	04/25/03	04/25/03	1	200.7
SODIUM	7440-23-5	µg/L	2000	36200		P		03M1374L	04/25/03	04/25/03	1	200.7

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

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	04/23/2003
Project ID:	JPL	Service ID:	32843	Collected by:	Leo Williamson
		Lab Sample ID:	03-2843-4	Received Date:	04/23/2003
Sample ID:	**MW-14-2**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	µg/L	5	< 5	U	F		03M1402E	04/29/03	04/29/03	1	200.9
CALCIUM	7440-70-2	µg/L	200	128000		P		03M1374L	04/25/03	04/25/03	1	200.7
IRON	7439-89-6	µg/L	50	5.3	B	P		03M1374L	04/25/03	04/25/03	1	200.7
MAGNESIUM	7439-95-4	µg/L	100	42700		P		03M1374L	04/25/03	04/25/03	1	200.7
POTASSIUM	7440-09-7	µg/L	400	2920		P		03M1374L	04/25/03	04/25/03	1	200.7
SODIUM	7440-23-5	µg/L	2000	29900		P		03M1374L	04/25/03	04/25/03	1	200.7

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

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	04/23/2003
Project ID:	JPL	Service ID:	32843	Collected by:	Leo Williamson
		Lab Sample ID:	03-2843-5	Received Date:	04/23/2003
Sample ID:	**MW-14-3**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	µg/L	5	< 5	U	F		03M1402E	04/29/03	04/29/03	1	200.9
CALCIUM	7440-70-2	µg/L	200	97600		P		03M1374L	04/25/03	04/25/03	1	200.7
IRON	7439-89-6	µg/L	50	16.0	B	P		03M1374L	04/25/03	04/25/03	1	200.7
MAGNESIUM	7439-95-4	µg/L	100	41500		P		03M1374L	04/25/03	04/25/03	1	200.7
POTASSIUM	7440-09-7	µg/L	400	3610		P		03M1374L	04/25/03	04/25/03	1	200.7
SODIUM	7440-23-5	µg/L	2000	38100		P		03M1374L	04/25/03	04/25/03	1	200.7

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

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	04/23/2003
Project ID:	JPL	Service ID:	32843	Collected by:	Leo Williamson
		Lab Sample ID:	03-2843-6	Received Date:	04/23/2003
Sample ID:	**MW-14-4**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	µg/L	5	< 5	U	F		03M1402E	04/29/03	04/29/03	1	200.9
CALCIUM	7440-70-2	µg/L	200	50300		P		03M1374L	04/25/03	04/25/03	1	200.7
IRON	7439-89-6	µg/L	50	21.2	B	P		03M1374L	04/25/03	04/25/03	1	200.7
MAGNESIUM	7439-95-4	µg/L	100	16900		P		03M1374L	04/25/03	04/25/03	1	200.7
POTASSIUM	7440-09-7	µg/L	400	2230		P		03M1374L	04/25/03	04/25/03	1	200.7
SODIUM	7440-23-5	µg/L	2000	25500		P		03M1374L	04/25/03	04/25/03	1	200.7

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

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

Applied P & Ch Laboratory

Metal Analysis Results

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Collection Date:	04/23/2003
Project ID:	JPL	Service ID:	32843	Collected by:	Leo Williamson
		Lab Sample ID:	03-2843-7	Received Date:	04/23/2003
Sample ID:	**MW-14-5**	Sample Matrix	Water	Moisture %:	-
Sample Type:	Field Sample				

Element Name	CAS No	Unit	RL	Result	C	M	Q	Batch	D-Date	A-Date	DF	Method
ARSENIC	7440-38-2	µg/L	5	< 5	U	F		03M1402E	04/29/03	04/29/03	1	200.9
CALCIUM	7440-70-2	µg/L	200	17100		P		03M1374L	04/25/03	04/25/03	1	200.7
IRON	7439-89-6	µg/L	50	55.7		P		03M1374L	04/25/03	04/25/03	1	200.7
MAGNESIUM	7439-95-4	µg/L	100	10800		P		03M1374L	04/25/03	04/25/03	1	200.7
POTASSIUM	7440-09-7	µg/L	400	2150		P		03M1374L	04/25/03	04/25/03	1	200.7
SODIUM	7440-23-5	µg/L	2000	28200		P		03M1374L	04/25/03	04/25/03	1	200.7

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

Note: RL: PQL (EQL) or CRDL D-Date: Digestion Date; A-Date: Analysis Date; DF: Dilution Factor

C Qualifier: U - Not Detected or less than IDL B - Less than RL (PQL, EQL or CRDL), but greater than IDL.

Q Qualifier: N - Spike recovery out of control * - Duplicate analysis out of control

W - Post digestion spike for GFAA out of control E - Serial dilution difference out of control

M Qualifier: P - ICP A - FLAA F - GFAA CV - Cold Vapor

FORM-2A Metal

Applied P & Ch Laboratory

Initial and Continuing Calibration Verification

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1374L
		Instrument:	ICP -L	Method:	200.9
Batch No.(s):	03M1374				

Analysis Date: **04/25/03** Concentration Units: **UG/L**

#	Analyte	ICV True	11:24 Result	%R	CCV True	11:42 Result	%R	CCV True	12:17 Result	%R	CCV True	12:50 Result	%R
1	Aluminum	10000.0	9800.51	98.0	5000.0	5026.33	100.5	5000.0	4863.49	97.3	5000.0	4822.06	96.4
2	Antimony	4000.0	4040.45	101.0	2000.0	1999.65	100.0	2000.0	1938.52	96.9	2000.0	1915.93	95.8
3	Arsenic	1000.0	1014.19	101.4	500.0	518.37	103.7	500.0	488.79	97.8	500.0	506.99	101.4
4	Barium	10000.0	9853.73	98.5	5000.0	4871.59	97.4	5000.0	4779.16	95.6	5000.0	4712.02	94.2
5	Beryllium	1000.0	984.57	98.5	500.0	486.34	97.3	500.0	477.69	95.5	500.0	474.05	94.8
6	Cadmium	2000.0	1974.48	98.7	1000.0	997.10	99.7	1000.0	965.25	96.5	1000.0	960.29	96.0
7	Calcium	100000.0	100932.81	100.9	50000.0	50605.34	101.2	50000.0	48762.74	97.5	50000.0	48194.04	96.4
8	Chromium	1000.0	988.53	98.9	500.0	497.42	99.5	500.0	478.22	95.6	500.0	470.56	94.1
9	Cobalt	4000.0	3950.49	98.8	2000.0	1977.86	98.9	2000.0	1946.26	97.3	2000.0	1944.70	97.2
10	Copper	4000.0	3958.20	99.0	2000.0	1956.60	97.8	2000.0	1918.76	95.9	2000.0	1923.00	96.2
11	Iron	10000.0	9861.43	98.6	5000.0	4956.01	99.1	5000.0	4820.73	96.4	5000.0	4790.46	95.8
12	Lead	1000.0	1006.26	100.6	500.0	513.72	102.7	500.0	502.01	100.4	500.0	491.63	98.3
13	Magnesium	50000.0	49424.77	98.8	25000.0	24546.03	98.2	25000.0	24045.72	96.2	25000.0	23752.02	95.0
14	Manganese	4000.0	3953.64	98.8	2000.0	1968.11	98.4	2000.0	1934.21	96.7	2000.0	1917.56	95.9
15	Nickel	4000.0	3953.03	98.8	2000.0	1996.42	99.8	2000.0	1965.90	98.3	2000.0	1968.65	98.4
16	Potassium	30000.0	28882.88	96.3	15000.0	14998.49	100.0	15000.0	14796.35	98.6	15000.0	14958.27	99.7
17	Selenium	1000.0	998.21	99.8	500.0	521.50	104.3	500.0	505.85	101.2	500.0	495.08	99.0
18	Silver	2000.0	1985.08	99.3	1000.0	973.43	97.3	1000.0	952.59	95.3	1000.0	946.67	94.7
19	Sodium	200000.0	195484.33	97.7	100000.0	100499.71	100.5	100000.0	99574.38	99.6	100000.0	98943.65	98.9
20	Thallium	1000.0	1014.90	101.5	500.0	502.67	100.5	500.0	486.79	97.4	500.0	481.30	96.3
21	Vanadium	4000.0	3940.19	98.5	2000.0	1986.79	99.3	2000.0	1945.31	97.3	2000.0	1930.90	96.5
22	Zinc	4000.0	3944.79	98.6	2000.0	2003.32	100.2	2000.0	1993.07	99.7	2000.0	2009.54	100.5
23	Molybdenum	4000.0	3951.98	98.8	2000.0	1991.95	99.6	2000.0	1911.98	95.6	2000.0	1875.31	93.8

(a) ICV Control Limit 95-105%; For Hg, 90-110%.

(b) CCV Control Limit 90-110%; For Hg, 80-120%.

FORM-2A Metal

Applied P & Ch Laboratory

Initial and Continuing Calibration Verification

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1374L
		Instrument:	ICP -L	Method:	200.9
Batch No.(s):	03M1374				

Analysis Date: **04/25/03** Concentration Units: **UG/L**

#	Analyte	CCV True	13:25 Result	%R	CCV True	13:55 Result	%R	CCV True	14:31 Result	%R	CCV True	15:06 Result	%R
1	Aluminum	5000.0	4737.60	94.8	5000.0	4941.46	98.8	5000.0	4869.95	97.4	5000.0	4959.09	99.2
2	Antimony	2000.0	1953.40	97.7	2000.0	1980.63	99.0	2000.0	1989.87	99.5	2000.0	1948.58	97.4
3	Arsenic	500.0	507.36	101.5	500.0	514.17	102.8	500.0	510.55	102.1	500.0	505.77	101.2
4	Barium	5000.0	4613.34	92.3	5000.0	4872.86	97.5	5000.0	4782.11	95.6	5000.0	4797.33	95.9
5	Beryllium	500.0	465.30	93.1	500.0	486.30	97.3	500.0	477.07	95.4	500.0	481.28	96.3
6	Cadmium	1000.0	973.58	97.4	1000.0	987.97	98.8	1000.0	983.09	98.3	1000.0	964.41	96.4
7	Calcium	50000.0	50071.24	100.1	50000.0	50534.87	101.1	50000.0	50242.74	100.5	50000.0	49435.95	98.9
8	Chromium	500.0	477.27	95.5	500.0	487.19	97.4	500.0	483.45	96.7	500.0	480.74	96.1
9	Cobalt	2000.0	1909.25	95.5	2000.0	1987.38	99.4	2000.0	1944.26	97.2	2000.0	1950.88	97.5
10	Copper	2000.0	1886.08	94.3	2000.0	1951.29	97.6	2000.0	1916.69	95.8	2000.0	1928.42	96.4
11	Iron	5000.0	4688.63	93.8	5000.0	4899.02	98.0	5000.0	4818.74	96.4	5000.0	4865.95	97.3
12	Lead	500.0	496.72	99.3	500.0	504.41	100.9	500.0	493.69	98.7	500.0	494.27	98.9
13	Magnesium	25000.0	23289.93	93.2	25000.0	24411.66	97.6	25000.0	24001.38	96.0	25000.0	24169.03	96.7
14	Manganese	2000.0	1879.44	94.0	2000.0	1968.70	98.4	2000.0	1930.98	96.5	2000.0	1939.74	97.0
15	Nickel	2000.0	1933.72	96.7	2000.0	2000.07	100.0	2000.0	1961.68	98.1	2000.0	1976.77	98.8
16	Potassium	15000.0	14857.13	99.0	15000.0	14969.10	99.8	15000.0	14877.48	99.2	15000.0	14914.70	99.4
17	Selenium	500.0	509.85	102.0	500.0	514.56	102.9	500.0	505.19	101.0	500.0	494.73	98.9
18	Silver	1000.0	931.04	93.1	1000.0	967.80	96.8	1000.0	950.32	95.0	1000.0	960.07	96.0
19	Sodium	100000.0	97081.64	97.1	100000.0	101000.34	101.0	100000.0	99368.82	99.4	100000.0	99478.29	99.5
20	Thallium	500.0	494.82	99.0	500.0	504.41	100.9	500.0	512.15	102.4	500.0	488.73	97.7
21	Vanadium	2000.0	1896.54	94.8	2000.0	1974.91	98.7	2000.0	1944.62	97.2	2000.0	1962.79	98.1
22	Zinc	2000.0	1969.02	98.5	2000.0	2018.25	100.9	2000.0	1979.64	99.0	2000.0	1987.85	99.4
23	Molybdenum	2000.0	1913.19	95.7	2000.0	1946.37	97.3	2000.0	1944.03	97.2	2000.0	1916.12	95.8

(a) ICV Control Limit 95-105%; For Hg, 90-110%.

(b) CCV Control Limit 90-110%; For Hg, 80-120%.

FORM-2A Metal

Applied P & Ch Laboratory

Initial and Continuing Calibration Verification

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1402E
		Instrument:	GFAA-E	Method:	200.9
Batch No.(s):	03M1402				

Analysis Date: **04/29/03** Concentration Units: **UG/L**

#	Analyte	ICV True	ICV 11:52 Result	ICV %R	CCV True	CCV 13:10 Result	CCV %R	CCV True	CCV 14:25 Result	CCV %R	CCV True	CCV 15:30 Result	CCV %R
1	Arsenic	50.0	49.60	99.2	50.0	52.30	104.6	50.0	50.20	100.4	50.0	53.80	107.6

(a) ICV Control Limit 95-105%; For Hg, 90-110%.

(b) CCV Control Limit 90-110%; For Hg, 80-120%.

FORM-2B Metal

Applied P & Ch Laboratory

CRDL Standard For AA and ICP

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1374L
		Instrument:	ICP -L	Method:	200.9

Batch No.(s): 03M1374

Analysis Date: **04/25/03** Concentration Units: **UG/L**

#	Analyte	True	11:34 Found	R%	Time Found	R%
1	Aluminum	200.0	189.54	94.8		
2	Antimony	20.0	14.43	72.1		
3	Arsenic	20.0	17.39	87.0		
4	Barium	10.0	9.72	97.2		
5	Beryllium	4.0	3.93	98.3		
6	Cadmium	5.0	4.67	93.5		
7	Calcium	1000.0	1094.06	109.4		
8	Chromium	10.0	9.52	95.2		
9	Cobalt	20.0	18.17	90.9		
10	Copper	10.0	8.92	89.2		
11	Iron	50.0	44.61	89.2		
12	Lead	10.0	8.77	87.7		
13	Magnesium		8.51			
14	Manganese	10.0	8.67	86.7		
15	Nickel	20.0	18.17	90.9		
16	Potassium		20.58			
17	Selenium	10.0	11.81	118.1		
18	Silver	10.0	9.61	96.1		
19	Sodium		20.45			
20	Thallium	10.0	9.23	92.3		
21	Vanadium	10.0	9.16	91.6		
22	Zinc	20.0	19.18	95.9		
23	Molybdenum	15.0	12.77	85.1		

FORM-3 Metal

Applied P & Ch Laboratory

Metal ICB/CCB Summary

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1374L
		Instrument:	ICP -L	Method:	200.9

Batch No.(s): 03M1374

Analysis Date: **04/25/03** Concentration Units: **UG/L**

#	Analyte	ICB Result	11:31 C	CCB Result	11:45 C	CCB Result	12:21 C	CCB Result	12:53 C	CCB Result	13:29 C
1	Aluminum	5.60	U	80.80	B	7.56	B	5.60	U	5.60	U
2	Antimony	2.70	U	2.70	U	-3.72	B	2.70	U	-6.79	B
3	Arsenic	-2.14	B	1.90	U	1.90	U	1.90	U	1.90	U
4	Barium	1.25	B	1.71	B	2.17	B	1.20	U	1.20	U
5	Beryllium	0.11	B	0.27	B	0.20	B	0.06	U	0.10	B
6	Cadmium	0.13	U	0.35	B	0.13	U	-0.17	B	-0.26	B
7	Calcium	59.00	U	201.41		59.00	U	59.00	U	59.00	U
8	Chromium	0.42	B	0.66	B	0.75	B	0.61	B	0.48	B
9	Cobalt	0.73	B	0.89	B	0.74	B	0.49	U	0.49	U
10	Copper	1.70	U	1.70	U	1.70	U	1.70	U	1.70	U
11	Iron	1.50	U	29.33	B	2.69	B	1.50	U	1.50	U
12	Lead	1.30	U	-2.36	B	-1.61	B	1.30	U	-1.84	B
13	Magnesium	9.70	U	79.39	B	20.43	B	9.70	U	9.70	U
14	Manganese	0.46	B	1.10	B	1.11	B	0.51	B	0.53	B
15	Nickel	0.46	U	0.61	B	0.91	B	0.46	U	0.52	B
16	Potassium	22.54	B	19.13	B	28.08	B	25.62	B	22.07	B
17	Selenium	2.30	U	2.30	U	2.30	U	2.30	U	2.43	B
18	Silver	0.70	B	0.61	U	0.61	U	1.31	B	0.61	U
19	Sodium	144.00	U	144.00	U	144.00	U	144.00	U	270.76	B
20	Thallium	1.60	U	1.60	U	1.60	U	1.60	U	1.60	U
21	Vanadium	0.13	U	-0.17	B	-0.65	B	-1.11	B	-0.42	B
22	Zinc	2.20	U	2.20	U	2.20	U	2.20	U	2.20	U
23	Molybdenum	0.32	U	1.32	B	1.57	B	0.32	U	0.54	B

FORM-3 Metal

Applied P & Ch Laboratory

Metal ICB/CCB Summary

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1374L
		Instrument:	ICP -L	Method:	200.9
Batch No.(s):	03M1374				

Analysis Date: **04/25/03** Concentration Units: **UG/L**

#	Analyte	CCB Result	13:59 C	CCB Result	14:35 C	CCB Result	15:10 C	CCB Result	Time C	CCB Result	Time C
1	Aluminum	5.60	U	5.60	U	5.60	U				
2	Antimony	-6.05	B	-6.23	B	-5.02	B				
3	Arsenic	1.90	U	-3.49	B	-2.67	B				
4	Barium	1.20	U	1.20	U	1.20	U				
5	Beryllium	0.06	U	0.07	B	0.06	U				
6	Cadmium	0.13	U	-0.21	B	0.13	U				
7	Calcium	59.00	U	59.00	U	59.00	U				
8	Chromium	0.56	B	0.54	B	0.32	B				
9	Cobalt	0.49	U	0.49	U	0.49	U				
10	Copper	1.70	U	1.70	U	1.70	U				
11	Iron	1.50	U	1.50	U	1.77	B				
12	Lead	1.30	U	-2.11	B	-2.04	B				
13	Magnesium	9.70	U	13.28	B	10.28	B				
14	Manganese	0.57	B	0.65	B	0.62	B				
15	Nickel	0.46	U	0.46	U	0.46	U				
16	Potassium	15.86	B	15.49	B	13.17	B				
17	Selenium	2.30	U	2.74	B	3.15	B				
18	Silver	1.07	B	0.61	U	1.66	B				
19	Sodium	144.00	U	144.00	U	144.00	U				
20	Thallium	1.60	U	2.30	B	1.60	U				
21	Vanadium	-0.53	B	-0.33	B	-1.22	B				
22	Zinc	2.20	U	2.20	U	2.20	U				
23	Molybdenum	0.93	B	1.20	B	0.46	B				

FORM-3 Metal

Applied P & Ch Laboratory

Metal ICB/CCB Summary

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1402E
		Instrument:	GFAA-E	Method:	200.9
Batch No.(s):	03M1402				

Analysis Date: **04/29/03** Concentration Units: **UG/L**

#	Analyte	ICB Result	11:59 C	CCB Result	13:16 C	CCB Result	14:32 C	CCB Result	15:36 C	CCB Result	Time C
1	Arsenic	2.10	U	2.10	U	2.10	U	2.10	U		

FORM-4 Metal

Applied P & Ch Laboratory

ICP Interference Check Sample

Client Name: GEOFON, Inc.
Project Name: JPL
Batch No.(s): 03M1374

Project No: 04-4428.10
Service ID: 032843
ICP ID Number: ICP -L

Lab Code: APCL
Sequence No.: 03M1374L

Analysis Date: **04/25/03**

Concentration Units: **UG/L**

#	Analyte	Expected Sol. A	Expected Sol. AB	Initial 11:37 Sol. A	Found 11:39 Sol. AB	%R	Final 15:01 Sol. A	Found 15:04 Sol. AB	%R
1	Aluminum	500000	500000	451371	471065.1	94.2	441429	473283.1	94.7
2	Antimony	0	1000	-17	963.3	96.3	-8	966.6	96.7
3	Arsenic	0	1000	-5	984.3	98.4	-5	979.5	97.9
4	Barium	0	500	-1	497.2	99.4	-1	484.7	96.9
5	Beryllium	0	500	0	484.4	96.9	0	486.8	97.4
6	Cadmium	0	1000	-1	962.9	96.3	-2	985.8	98.6
7	Calcium	500000	500000	458056	474733.0	94.9	462402	484407.3	96.9
8	Chromium	0	500	6	497.5	99.5	6	507.0	101.4
9	Cobalt	0	500	2	472.5	94.5	3	482.5	96.5
10	Copper	0	500	6	515.8	103.2	7	503.7	100.7
11	Iron	200000	200000	177235	181602.5	90.8	172514	182226.3	91.1
12	Lead	0	1000	-6	924.6	92.5	-8	948.8	94.9
13	Magnesium	500000	500000	460681	471089.1	94.2	446297	472814.0	94.6
14	Manganese	0	500	-2	491.4	98.3	-2	478.0	95.6
15	Nickel	0	1000	1	924.6	92.5	2	949.8	95.0
16	Potassium	0	0	1	9.9		10	43.3	
17	Selenium	0	1000	11	952.8	95.3	11	990.8	99.1
18	Silver	0	1000	6	1015.6	101.6	6	992.8	99.3
19	Sodium	0	0	-111	261.5		19	207.4	
20	Thallium	0	1000	-3	924.1	92.4	2	944.8	94.5
21	Vanadium	0	500	-4	490.1	98.0	-5	478.2	95.6
22	Zinc	0	1000	2	985.5	98.5	3	970.3	97.0
23	Molybdenum	0	1000	0	934.8	93.5	2	965.6	96.6

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 200.9

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32843
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03M1402E		
MS Filename:	-	Date Analyzed:	042903	Time Analyzed:	12:44
MSD Filename:	-	Date Analyzed:	042903	Time Analyzed:	12:50
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
ARSENIC	µg/L	50	0	45.6	91	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
ARSENIC	µg/L	50	46.3	93	2	20	75-125
# 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: _____

FORM-5A Metal

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 200.7

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32843
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03M1374L		
MS Filename:	-	Date Analyzed:	042503	Time Analyzed:	12:10
MSD Filename:	-	Date Analyzed:	042503	Time Analyzed:	12:12
MS Sample No:	**10GP-03-1-GW**	Sample Lab ID:	03-2842-8		

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration MS	MS Rec% #	QC Limit, % REC
CALCIUM	µg/L	20000	20100	41600	108	75-125
IRON	µg/L	1000	927	1980	105	75-125
MAGNESIUM	µg/L	10000	22300	33400	111	75-125
POTASSIUM	µg/L	5000	28700	33200	90	75-125
SODIUM	µg/L	40000	202000	244000	105	75-125
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
CALCIUM	µg/L	20000	39400	97	11	20	75-125
IRON	µg/L	1000	1940	101	4	20	75-125
MAGNESIUM	µg/L	10000	32500	102	8	20	75-125
POTASSIUM	µg/L	5000	33300	92	2	20	75-125
SODIUM	µg/L	40000	244000	105	0	20	75-125
# 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: _____

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FORM-5B Metal

Applied P & Ch Laboratory

Post Digest Spike Sample Recovery

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1374L
		Batch No.:	03M1374	Method:	200.9
Spike Sample No. :	03-2842-08	Matrix:	WATER	Instrument:	ICP -L
Client Sample No.:	**10GP-03-1-GW**	Analysis Date:	04/25/03		

Concentration Units: **UG/L**

#	Analyte	Spiked Sample Result(SSR)	12:15 C	Sample Result(SR)	12:00 C	Spike Added(SA)	% Rec.	Control Limit	Q
1	Aluminum	2123.1724		40.3965	B	2000.00	104.1	75-125	
2	Antimony	510.9753		-1.9260	U	500.00	102.2	75-125	
3	Arsenic	535.5619		-0.1722	U	500.00	107.1	75-125	
4	Barium	4115.1899		66.9105		4000.00	101.2	75-125	
5	Beryllium	194.3507		0.0537	U	200.00	97.2	75-125	
6	Cadmium	253.6125		0.0808	U	250.00	101.4	75-125	
7	Calcium	39627.0234		20121.0449		20000.00	97.5	75-125	
8	Chromium	1024.6537		2.1135	B	1000.00	102.3	75-125	
9	Cobalt	982.8012		0.1108	U	1000.00	98.3	75-125	
10	Copper	1029.0854		1.8516	B	1000.00	102.7	75-125	
11	Iron	1929.1129		927.4280		1000.00	100.2	75-125	
12	Lead	3066.7786		-1.0455	U	3000.00	102.2	75-125	
13	Magnesium	32551.5215		22349.0977		10000.00	102.0	75-125	
14	Manganese	994.8975		64.4668		1000.00	93.0	75-125	
15	Nickel	1013.1289		2.2189	B	1000.00	101.1	75-125	
16	Potassium	33855.1797		28714.5215		5000.00	102.8		
17	Selenium	529.0864		2.1564	U	500.00	105.8	75-125	
18	Silver	1005.2655		0.5428	U	1000.00	100.5	75-125	
19	Sodium	243383.1250		202077.9844		40000.00	103.3		
20	Thallium	512.8484		-1.4090	U	500.00	102.6	75-125	
21	Vanadium	2009.0175		3.1249	B	2000.00	100.3	75-125	
22	Zinc	517.0151		3.9610	B	500.00	102.6	75-125	
23	Molybdenum	2103.3562		25.5509		2000.00	103.9	75-125	

FORM-5B Metal

Applied P & Ch Laboratory

Post Digest Spike Sample Recovery

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1402E
		Batch No.:	03M1402	Method:	200.9
Spike Sample No. :	03-2933-03	Matrix:	WATER	Instrument:	GFAA-E
Client Sample No.:	**MW-17-2**	Analysis Date:	04/29/03		

Concentration Units: **UG/L**

#	Analyte	Spiked Sample Result(SSR)	12:57 C	Sample Result(SR)	12:24 C	Spike Added(SA)	% Rec.	Control Limit	Q
1	Arsenic	48.6000		-0.5000	U	50.00	97.2	75-125	

FORM-6 Metal

Applied P & Ch Laboratory

Duplicates Verification

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1374L
		Batch No.:	03M1374	Method:	200.9
Spike Sample No.	03-2842-08	Matrix:	WATER	Instrument:	ICP -L
Client Sample No.	**10GP-03-1-GW**	% Solid:	0.00	Analysis Date:	04/25/03

Concentration Unit: **UG/L**

#	Analyte	12:00 Sample(s)	C	12:03 Duplicate	C	RPD(%)	Q
1	Aluminum	40.3965	B	43.7680	B	8.0	
2	Antimony	-1.9260	U	-1.6238	U		
3	Arsenic	-0.1722	U	-0.7085	U		
4	Barium	66.9105		66.4724		0.7	
5	Beryllium	0.0537	U	0.0524	U		
6	Cadmium	0.0808	U	-0.1368	U		
7	Calcium	20121.0449		19626.9453		2.5	
8	Chromium	2.1135	B	2.2041	B	4.2	
9	Cobalt	0.1108	U	-0.1263	U		
10	Copper	1.8516	B	1.4511	U	200.0	
11	Iron	927.4280		959.1155		3.4	
12	Lead	-1.0455	U	0.0204	U		
13	Magnesium	22349.0977		22978.5527		2.8	
14	Manganese	64.4668		65.9239		2.2	
15	Nickel	2.2189	B	1.9982	B	10.5	
16	Potassium	28714.5215		28541.0313		0.6	
17	Selenium	2.1564	U	1.8592	U		
18	Silver	0.5428	U	2.0280	B	200.0	
19	Sodium	202077.9844		206793.1719		2.3	
20	Thallium	-1.4090	U	-1.2842	U		
21	Vanadium	3.1249	B	2.9728	B	5.0	
22	Zinc	3.9610	B	3.8445	B	3.0	
23	Molybdenum	25.5509		25.0148		2.1	

FORM-6 Metal

Applied P & Ch Laboratory

Duplicates Verification

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1402E
		Batch No.:	03M1402	Method:	200.9
Spike Sample No.	03-2933-03	Matrix:	WATER	Instrument:	GFAA-E
Client Sample No.	**MW-17-2**	% Solid:	0.00	Analysis Date:	04/29/03

Concentration Unit: **UG/L**

#	Analyte	12:24 Sample(s)	C	12:30 Duplicate	C	RPD(%)	Q
1	Arsenic	-0.5000	U	0.7000	U		

FORM-7 Metal

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 200.9

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32843
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03M1402E		
LCS Filename:	-	Date Analyzed:	042903	Time Analyzed:	12:11
LCSD Filename:	-	Date Analyzed:	042903	Time Analyzed:	12:18

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
ARSENIC	µg/L	50	0	53.1	106	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
ARSENIC	µg/L	50	49.8	100	6	20	80-120
# 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: _____

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FORM-7 Metal

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 200.7

Client Name:	GEOFON, Inc.	Contract No:		Lab Code:	APCL
Case No:		SAS No:		Service ID:	32843
Project ID:	JPL	Project No:	04-4428.10	Sample Matrix:	Water
		Batch No:	03M1374L		
LCS Filename:	-	Date Analyzed:	042503	Time Analyzed:	11:54
LCSD Filename:	-	Date Analyzed:	042503	Time Analyzed:	11:56

Spiked Components	Unit	Spike Added	Concentration Unspiked	Concentration LCS	LCS Rec% #	QC Limit, % REC
CALCIUM	µg/L	20000	0	20500	103	80-120
IRON	µg/L	1000	0	1000	100	80-120
MAGNESIUM	µg/L	10000	0	9390	94	80-120
POTASSIUM	µg/L	5000	0	5230	105	80-120
SODIUM	µg/L	40000	0	40700	102	80-120
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, % RPD	QC Limit, % REC
CALCIUM	µg/L	20000	19800	99	4	20	80-120
IRON	µg/L	1000	969	97	3	20	80-120
MAGNESIUM	µg/L	10000	9290	93	1	20	80-120
POTASSIUM	µg/L	5000	5130	103	2	20	80-120
SODIUM	µg/L	40000	39600	99	3	20	80-120
# 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: _____

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FORM-9 Metal

Applied P & Ch Laboratory

Serial Dilution

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1374L
		Batch No.:	03M1374	Method:	200.9
Dilution Sample No.:	03-2842-08	Matrix:	WATER	Instrument:	ICP -L
Client Sample No.:	**10GP-03-1-GW**	Analysis Date:	04/25/03		

Concentration Units: **UG/L**

#	Analyte	Initial Sample Results(I)	12:00 C	Serial Dilut Results(S)	12:07 C	% Diff.	Q
1	Aluminum	40.40	B	171.70	B	325.0	
2	Antimony	-1.93	U	-23.74	U		
3	Arsenic	-0.17	U	4.59	U		
4	Barium	66.91		66.73		0.3	
5	Beryllium	0.05	U	0.01	U		
6	Cadmium	0.08	U	-0.68	U		
7	Calcium	20121.04		21241.20		5.6	
8	Chromium	2.11	B	4.49	B	112.6	
9	Cobalt	0.11	U	0.52	U		
10	Copper	1.85	B	3.91	U	100.0	
11	Iron	927.43		937.61		1.1	
12	Lead	-1.05	U	-4.23	U		
13	Magnesium	22349.10		22184.29		0.7	
14	Manganese	64.47		65.81		2.1	
15	Nickel	2.22	B	2.14	U	100.0	
16	Potassium	28714.52		26863.52		6.4	
17	Selenium	2.16	U	4.20	U		
18	Silver	0.54	U	1.69	U		
19	Sodium	202077.98		203387.38		0.6	
20	Thallium	-1.41	U	1.89	U		
21	Vanadium	3.12	B	-2.40	U	100.0	
22	Zinc	3.96	B	6.99	U	100.0	
23	Molybdenum	25.55		24.99	B	2.2	

FORM-9 Metal

Applied P & Ch Laboratory

Serial Dilution

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1402E
		Batch No.:	03M1402	Method:	200.9
Dilution Sample No.:	03-2933-03	Matrix:	WATER	Instrument:	GFAA-E
Client Sample No.:	MW-17-2	Analysis Date:	04/29/03		

Concentration Units: **UG/L**

#	Analyte	Initial Sample Results(I)	12:24 C	Serial Dilut Results(S)	12:37 C	% Diff.	Q
1	Arsenic	-0.50	U	-5.00	U		

FORM-13 Metal

Applied P & Ch Laboratory

Preparation Log

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1374L
		Batch No.:	03M1374	Method:	200.9
Preparation Matrix:	WATER	Instrument:	ICP -L		

#	Client Sample No.	APCL Sample No.	Preparation Date	Weight (gram)	Volume (ml)
1	EB-3-4/22/03	03-2819-01	04/25/03		50.0
2	MW-19-1	03-2819-02	04/25/03		50.0
3	MW-19-2	03-2819-03	04/25/03		50.0
4	MW-19-3	03-2819-04	04/25/03		50.0
5	MW-19-4	03-2819-05	04/25/03		50.0
6	MW-19-5	03-2819-06	04/25/03		50.0
7	10GP-03-1-GW	03-2842-08DM	04/25/03		50.0
8	03GP-02-1-GW	03-2842-03	04/25/03		50.0
9	10GP-02-1-GW	03-2842-07	04/25/03		50.0
10	10GP-05-1-GW	03-2842-09	04/25/03		50.0
11	10GP-07-1-GW	03-2842-10	04/25/03		50.0
12	DUPE-2-2Q03	03-2843-01	04/25/03		50.0
13	EB-4-4/23/03	03-2843-02	04/25/03		50.0
14	MW-14-1	03-2843-03	04/25/03		50.0
15	MW-14-2	03-2843-04	04/25/03		50.0
16	MW-14-3	03-2843-05	04/25/03		50.0
17	MW-14-4	03-2843-06	04/25/03		50.0
18	MW-14-5	03-2843-07	04/25/03		50.0
19		03M1374MB	04/25/03		50.0
20		03M1374LCS	04/25/03		50.0
21		03M1374LCSD	04/25/03		50.0
22	10GP-03-1-GW Dup.	03M1374MD	04/25/03		50.0
23	10GP-03-1-GW MS	03M1374MS	04/25/03		50.0
24	10GP-03-1-GW MSD	03M1374MSD	04/25/03		50.0

FORM-13 Metal

Applied P & Ch Laboratory

Preparation Log

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1402E
		Batch No.:	03M1402	Method:	200.9
Preparation Matrix:	WATER	Instrument:	GFAA-E		

#	Client Sample No.	APCL Sample No.	Preparation Date	Weight (gram)	Volume (ml)
1	DUPE-2-2Q03	03-2843-01	04/29/03		50.0
2	EB-4-4/23/03	03-2843-02	04/29/03		50.0
3	MW-14-1	03-2843-03	04/29/03		50.0
4	MW-14-2	03-2843-04	04/29/03		50.0
5	MW-14-3	03-2843-05	04/29/03		50.0
6	MW-14-4	03-2843-06	04/29/03		50.0
7	MW-14-5	03-2843-07	04/29/03		50.0
8	DUPE-3-2Q03	03-2866-01	04/29/03		50.0
9	EB-5-4/24/03	03-2866-02	04/29/03		50.0
10	MW-20-1	03-2866-03	04/29/03		50.0
11	MW-20-2	03-2866-04	04/29/03		50.0
12	MW-20-3	03-2866-05	04/29/03		50.0
13	MW-20-4	03-2866-06	04/29/03		50.0
14	MW-20-5	03-2866-07	04/29/03		50.0
15	MW-17-2	03-2933-03DM	04/29/03		50.0
16	EB-6-4/28/03	03-2933-01	04/29/03		50.0
17	MW-17-1	03-2933-02	04/29/03		50.0
18	MW-17-3	03-2933-04	04/29/03		50.0
19	MW-17-4	03-2933-05	04/29/03		50.0
20	MW-17-5	03-2933-06	04/29/03		50.0
21		03M1402MB	04/29/03		50.0
22		03M1402LCS	04/29/03		50.0
23		03M1402LCSD	04/29/03		50.0
24	MW-17-2 Dup.	03M1402MD	04/29/03		50.0
25	MW-17-2 MS	03M1402MS	04/29/03		50.0
26	MW-17-2 MSD	03M1402MSD	04/29/03		50.0

FORM-14 Metal

Applied P & Ch Laboratory

Analysis Run Log

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1374L
		Instrument:	ICP -L	Method:	200.9
Batch No.(s):	03M1374	Start Date:	04/25/03	End Date:	04/25/03

#	APCL Sample No.	D/F	Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	Mo	Sr	Ti	Sn	Li	B	Si
1	Calib Blank	1.00	11:13	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
2	STD1 1423A	1.00	11:16	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
3	STD2 1423B	1.00	11:18	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
4	STD3 1423C	1.00	11:22	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
5	ICV 1447A	1.00	11:24	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
6	ICB	1.00	11:31	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
7	CRI A1432	1.00	11:34	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
8	ICSA 1441	1.00	11:37	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
9	ICSAB 1443	1.00	11:39	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
10	CCV 1447B	1.00	11:42	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
11	CCB	1.00	11:45	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
12	M-BL 03M1374 W	1.00	11:51	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
13	LCS-03M1374	1.00	11:54	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
14	LCSD-03M1374	1.00	11:56	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
15	2842-8 S F=1	1.00	12:00	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
16	2842-8 D F=1	1.00	12:03	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
17	2842-8 1/5 F=5	5.00	12:07	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
18	2842-8 MS F=1	1.00	12:10	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
19	2842-8 MSD F=1	1.00	12:12	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
20	2842-8 PS F=1	1.00	12:15	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
21	CCV 1447B	1.00	12:17	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
22	CCB	1.00	12:21	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
23	2842-3 F=1	1.00	12:25	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
24	2842-3 F=5	5.00	12:28	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
25	2842-7 F=1	1.00	12:31	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
26	2842-7 F=5	5.00	12:34	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
27	2842-9 F=1	1.00	12:38	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
28	2842-9 F=5	5.00	12:41	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
29	2842-10 F=1	1.00	12:44	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
30	2842-10 F=5	5.00	12:47	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
31	CCV 1447B	1.00	12:50	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
32	CCB	1.00	12:53	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
33	2819-1 F=1	1.00	12:57	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
34	2819-2 F=1	1.00	13:00	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
35	2819-3 F=1	1.00	13:04	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
36	2819-4 F=1	1.00	13:16	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
37	2819-5 F=1	1.00	13:19	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
38	2819-6 F=1	1.00	13:23	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
39	CCV 1447B	1.00	13:25	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
40	CCB	1.00	13:29	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						

FORM-14 Metal

Applied P & Ch Laboratory

Analysis Run Log

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1374L
		Instrument:	ICP -L	Method:	200.9
Batch No.(s):	03M1374	Start Date:	04/25/03	End Date:	04/25/03

#	APCL Sample No.	D/F	Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	Mo	Sr	Ti	Sn	Li	B	Si
41	2843-1 F=1	1.00	13:32	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
42	2843-2 F=1	1.00	13:36	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
43	2843-3 F=1	1.00	13:39	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
44	2843-4 F=1	1.00	13:43	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
45	2843-5 F=1	1.00	13:46	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
46	2843-6 F=1	1.00	13:49	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
47	2843-7 F=1	1.00	13:53	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
48	CCV 1447B	1.00	13:55	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
49	CCB	1.00	13:59	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
50	M-BL 03M1375S	1.00	14:02	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
51	LCS-03M1375	1.00	14:05	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
52	LCSD-03M1375	1.00	14:07	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
53	2842-1 S F=200	4.00	14:11	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
54	2842-1 D F=200	4.00	14:14	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
55	2842-1 1/5 F=10	20.00	14:18	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
56	2842-1 MS F=200	4.00	14:21	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
57	2842-1 MSD F=20	4.00	14:25	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
58	2842-1 PS F=200	4.00	14:29	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
59	CCV 1447B	1.00	14:31	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
60	CCB	1.00	14:35	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
61	2842-2 F=200	4.00	14:37	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
62	2842-4 F=200	4.00	14:40	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
63	2842-5 F=200	4.00	14:42	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
64	2842-11 F=200	4.00	14:45	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
65	2842-12 F=200	4.00	14:47	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
66	2842-14 F=200	4.00	14:51	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
67	2842-15 F=200	4.00	14:53	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
68	2842-17 F=200	4.00	14:56	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
69	2842-18 F=200	4.00	14:58	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
70	ICSA 1441	1.00	15:01	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
71	ICSAB 1443	1.00	15:04	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
72	CCV 1447B	1.00	15:06	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
73	CCB	1.00	15:10	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						
74	DLC A1427	1.00	15:15	√	√	√	√	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√						

FORM-14 Metal

Applied P & Ch Laboratory

Analysis Run Log

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1402E
		Instrument:	GFAA-E	Method:	200.9
Batch No.(s):	03M1402	Start Date:	04/29/03	End Date:	04/29/03

#	APCL Sample No.	D/F	Time	Al Sb As Ba Be Cd Ca Cr Co Cu Fe Pb Mg Mn Hg Ni K Se Ag Na Tl V Zn Mo Sr Ti Sn Li B Si
1	AS Position 002	1.00	11:12	√
2	AS Position 001	1.00	11:15	√
3	Calib. Blank	1.00	11:18	√
4	1/2 STD1 1472A	1.00	11:24	√
5	STD1 1472A	1.00	11:31	√
6	STD2 1472B	1.00	11:37	√
7	STD3 1472C	1.00	11:44	√
8	ICV A1474	1.00	11:52	√
9	ICB	1.00	11:59	√
10	M-BL 03M1402	1.00	12:05	√
11	LCS-03M1402	1.00	12:11	√
12	LCSD-03M1402	1.00	12:18	√
13	2933-3 S F=1	1.00	12:24	√
14	2933-3 D F=1	1.00	12:30	√
15	2933-3 1/5 F=5	5.00	12:37	√
16	2933-3 MS F=1	1.00	12:44	√
17	2933-3 MSD F=1	1.00	12:50	√
18	2933-3 PS F=1	1.00	12:57	√
19	2933-1 F=1	1.00	13:03	√
20	CCV A1474	1.00	13:10	√
21	CCB	1.00	13:16	√
22	2933-2 F=1	1.00	13:22	√
23	2933-4 F=1	1.00	13:29	√
24	2933-5 F=1	1.00	13:35	√
25	2933-6 F=1	1.00	13:41	√
26	2866-1 F=1	1.00	13:47	√
27	2866-2 F=1	1.00	13:54	√
28	2866-3 F=1	1.00	14:00	√
29	2866-4 F=1	1.00	14:06	√
30	2866-5 F=1	1.00	14:12	√
31	2866-6 F=1	1.00	14:19	√
32	CCV A1474	1.00	14:25	√
33	CCB	1.00	14:32	√
34	2866-7 F=1	1.00	14:38	√
35	2843-1 F=1	1.00	14:44	√
36	2843-2 F=1	1.00	14:51	√
37	2843-3 F=1	1.00	14:58	√
38	2843-4 F=1	1.00	15:04	√
39	2843-5 F=1	1.00	15:11	√
40	2843-6 F=1	1.00	15:17	√

FORM-14 Metal

Applied P & Ch Laboratory

Analysis Run Log

Client Name:	GEOFON, Inc.	Project No:	04-4428.10	Lab Code:	APCL
Project Name:	JPL	Service ID:	032843	Sequence No.:	03M1402E
		Instrument:	GFAA-E	Method:	200.9
Batch No.(s):	03M1402	Start Date:	04/29/03	End Date:	04/29/03

#	APCL Sample No.	D/F	Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn	Mo	Sr	Ti	Sn	Li	B	Si
41	2843-7 F=1	1.00	15:23	√																												
42	CCV A1474	1.00	15:30	√																												
43	CCB	1.00	15:36	√																												

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

Metal Digestion (3010/3050) Worksheet

X1 4/25/03

Batch # 03M1374 Matrix: W Method used: 3010A Date: 4/25/03 Digested by: X1 Diluted by: N.Z

Lot #: ASTM Type I water RW1408 HNO_3 1102/20 H_2SO_4 _____ HCl 40 2050 H_2O_2 023267

OP #	Type	Samp ID /Lot #	X (g or mL)	$V_{digest}/X = f_1$	$V_f/V_i = f_2$	$V_f'/V_i' = f_3$	$F=f_1f_2f_3$	Note
4251	Method Blank	Bl. Lot: RW1408	50	50 /X= 1	/ =	/ =		23M-e
4252	LCS1	Bl. Lot: "		/X=	/ =	/ =		
4253	Sample-1	2842 -8		/X=	/ =	/ =		T=RT°C
4254	MS1 on S-1	-8		/X=	/ =	/ =		
4255	MS2 on S-1	-8		/X=	/ =	/ =		
4256	Sample 2	-3		/X=	1012=5	/ =		F=5 for Na
4257	Sample 3	-7		/X=	/ / =	/ =		K
4258	Sample 4	-9		/X=	/ / =	/ =		K Na
4259	Sample 5	-10		/X=	/ / =	/ =		K Na
4260	Sample 6	2819 -1		/X=	/ =	/ =		
4261	Sample 7	-2		/X=	/ =	/ =		
4262	Sample 8	-3		/X=	/ =	/ =		MS/MSD
4263	Sample 9	-4		/X=	/ =	/ =		
4264	Sample 10	-5		/X=	/ =	/ =		
4265	LCS2	Bl. Lot: RW1408		/X=	/ =	/ =		
4266	Sample 11	-6		/X=	/ =	/ =		
4267	Sample 12	2843 -1		/X=	/ =	/ =		
4268	Sample 13	-2		/X=	/ =	/ =		
4269	Sample 14	-3		/X=	/ =	/ =		
4270	Sample 15	-4		/X=	/ =	/ =		
4271	Sample 16	-5		/X=	/ =	/ =		
4272	Sample 17	-6		/X=	/ =	/ =		
4273	Sample 18	-7	↓	/X= ↓	/ =	/ =		
4274	Sample 19			X1 /X=	/ =	/ =		
4275	Sample 20			/X= 4/25/03	/ =	/ =		
4276	Duplicate	2842 -8	50	50 /X= 1	/ =	/ =		

Specification of matrix spike and lab control spike

QC Type	Spiked Element *	Spike Stock Solution Lot #	Spike Stock (Rep.) Conc. C_s, µg/mL	Spike Stock Volum Used V_s mL	Spike Level $T'=C_sV_s/V$ ppm or mg/L	Sample Spike T, ppm
MS1	/As/Se/Sb/M_{20}	AA- /AA- /AA- /AA-1492	/ / / 25	/ / / 2	/ / / 1	
MS2	/As/Se/Sb/M_{20}	AA- /AA- /AA- /AA- "	/ / /	/ / /	/ / /	
LCS1	/As/Se/Sb/M_{20}	AA- /AA- /AA- /AA-1492	/ / /	/ / /	/ / /	
LCS2	/As/Se/Sb/M_{20}	AA- /AA- /AA- /AA- "	/ / /	/ / /	/ / /	

* Notation: T – rep. sample spike level. T' – digest solution spike level. $T=f\,T'=C_sV_s/X$. M20 (or Mj) represents 20 (or j) metals, (see STD logbook).
If digest needs dilution for different metals, use dilution worksheet.

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13760 Magnolia Ave. Chino CA 91710

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

Digest-144

Metal Digestion (3010/3050) Worksheet

Batch # 03M1402 Matrix: W Method used: 3020A Date: 4/29/03 Digested by: XL Diluted by: _____

Lot #: ASTM Type I water RW1409 HNO_3 1102420 H_2SO_4 _____ HCl _____ H_2O_2 _____

OP #	Type	Samp ID /Lot #	X (g or mL)	$V_{digest}/X = f_1$	$V_f/V_i = f_2$	$V_f'/V_i' = f_3$	$F=f_1f_2f_3$	Note
4719	Method Blank	Bl. Lot: RW1409	50	50 /X= 1	/ =	/ =		GFAA/As
4720	LCS1	Bl. Lot: "		/X=	/ =	/ =		T=95°C
4721	Sample-1	2933-3		/X=	/ =	/ =		
4722	MS1 on S-1	-3		/X=	/ =	/ =		
4723	MS2 on S-1	-3		/X=	/ =	/ =		
4724	Sample 2	-1		/X=	/ =	/ =		
4725	Sample 3	-2		/X=	/ =	/ =		
4726	Sample 4	-4		/X=	/ =	/ =		
4727	Sample 5	-5		/X=	/ =	/ =		
4728	Sample 6	-6		/X=	/ =	/ =		
4729	Sample 7	2866-1		/X=	/ =	/ =		
4730	Sample 8	-2		/X=	/ =	/ =		
4731	Sample 9	-3		/X=	/ =	/ =		
4732	Sample 10	-4		/X=	/ =	/ =		
4733	LCS2	Bl. Lot: RW1409		/X=	/ =	/ =		
4734	Sample 11	-5		/X=	/ =	/ =		
4735	Sample 12	-6		/X=	/ =	/ =		
4736	Sample 13	-7		/X=	/ =	/ =		
4737	Sample 14	2843-1		/X=	/ =	/ =		
4738	Sample 15	-2		/X=	/ =	/ =		
4739	Sample 16	-3		/X=	/ =	/ =		
4740	Sample 17	-4		/X=	/ =	/ =		
4741	Sample 18	-5		/X=	/ =	/ =		
4742	Sample 19	-6		/X=	/ =	/ =		
4743	Sample 20	-7		/X=	/ =	/ =		
4744	Duplicate	2933-3		/X=	/ =	/ =		

Specification of matrix spike and lab control spike

QC Type	Spiked Element *	Spike Stock Solution Lot #	Spike Stock (Rep.) Conc. C_s, µg/mL	Spike Stock Volum Used V_s mL	Spike Level $T'=C_sV_s/V$ ppm or mg/L	Sample Spike T, ppm
MS1	/AsSe/Sb/M_{20}	AA- /AA-1473 /AA- /AA-	/ 5 / /	10.5 /	10.05 /	
MS2	/AsSe/Sb/M_{20}	AA- /AA-4 /AA- /AA-	/ / /	/ / /	/ / /	
LCS1	/AsSe/Sb/M_{20}	AA- /AA-1471 /AA- /AA-	/ / /	/ / /	/ / /	
LCS2	/AsSe/Sb/M_{20}	AA- /AA-1 /AA- /AA-	/ / /	/ / /	/ / /	

* Notation: T – rep. sample spike level. T' – digest solution spike level. $T=f\ T'=C_sV_s/X$. M_{20} (or M_j) represents 20 (or j) metals, (see STD logbook).

If digest needs dilution for different metals, use dilution worksheet.

APCL form 6-116 April. 03, 1996. Ver. 4.0 No pencil. Use blue pen for record. Use red pen for correction.

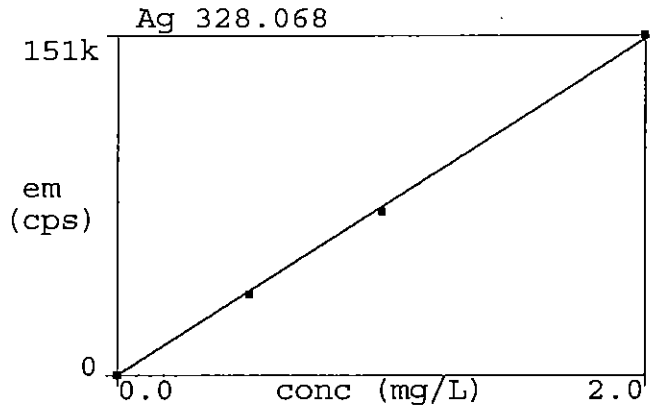
Root-File:[CUST.DOC.AA]DIGEST_ROOT.TEX File:[CUST.DOC.AA]DIGEST .TEX

Supervisor Initial GW

3348

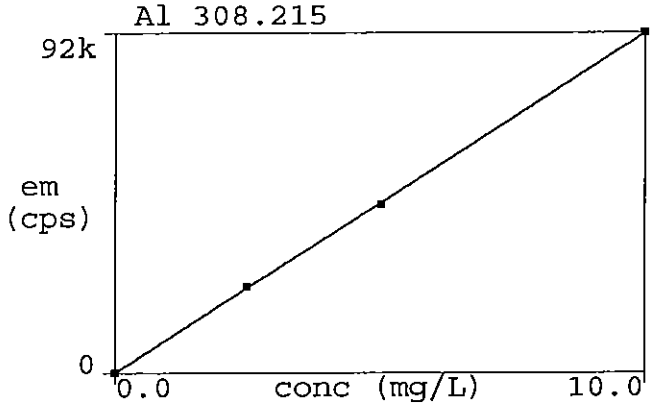
Calibration

Method: 23ME
Result: 03M1374L



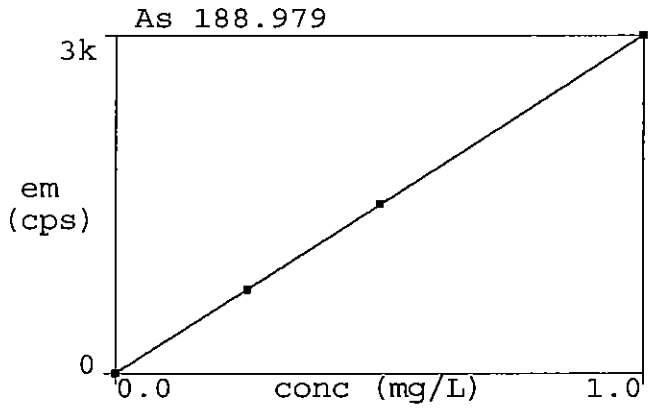
Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 0.9996

1



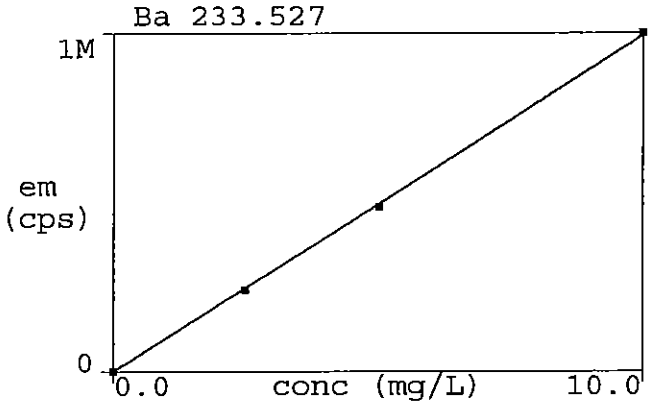
Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 1.0000

2



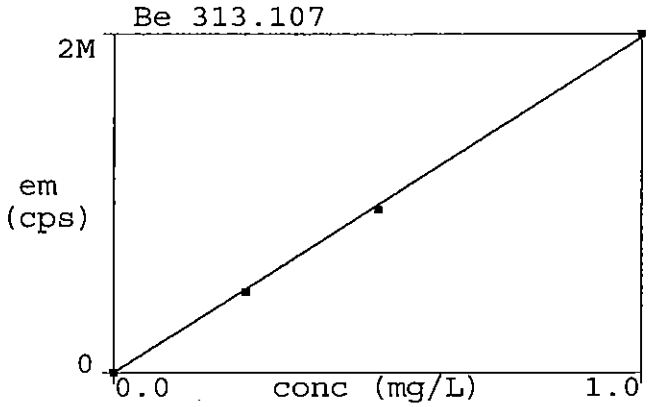
Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 1.0000

3



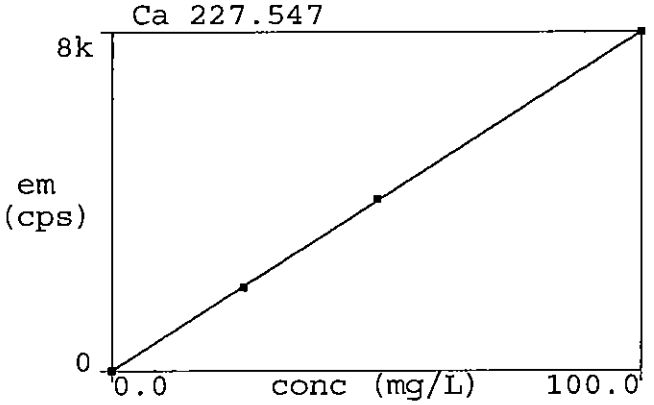
Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 0.9998

4



Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 0.9996

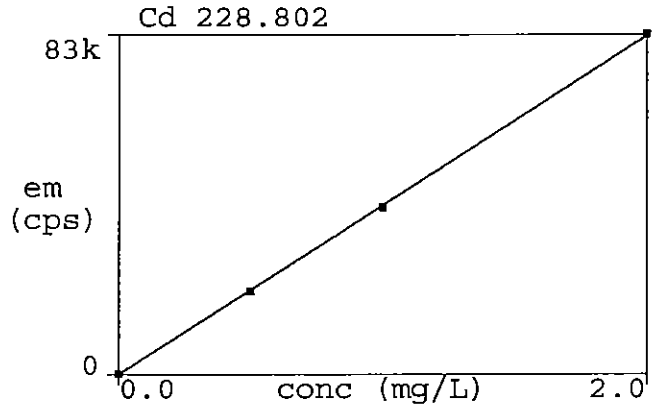
5



Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 1.0000

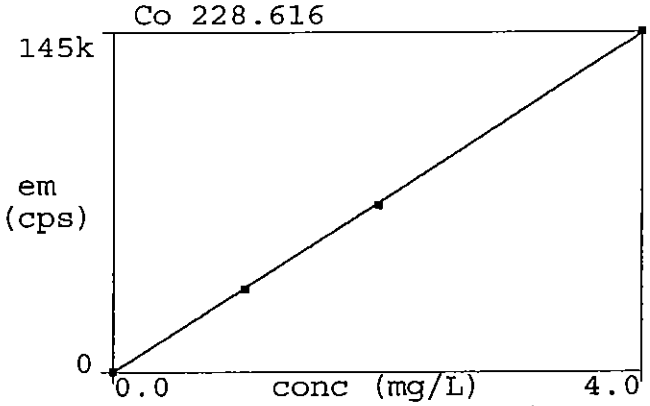
6

Method: 23ME
Result: 03M1374L



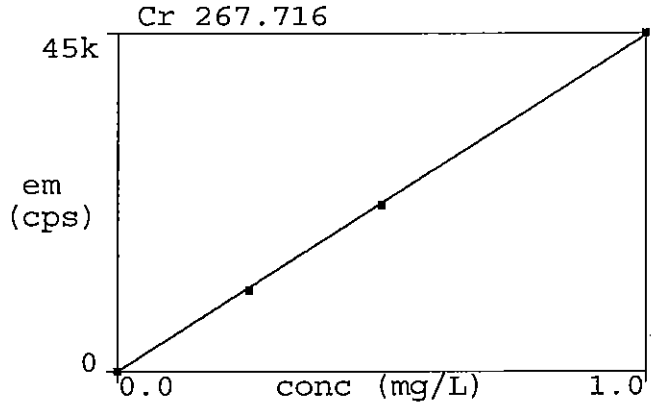
Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 0.9999

7



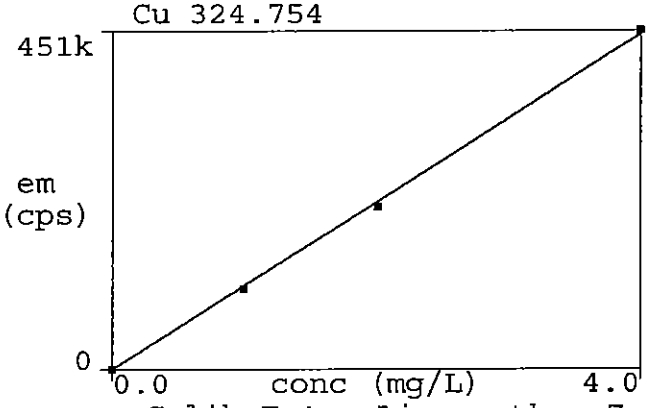
Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 0.9999

8



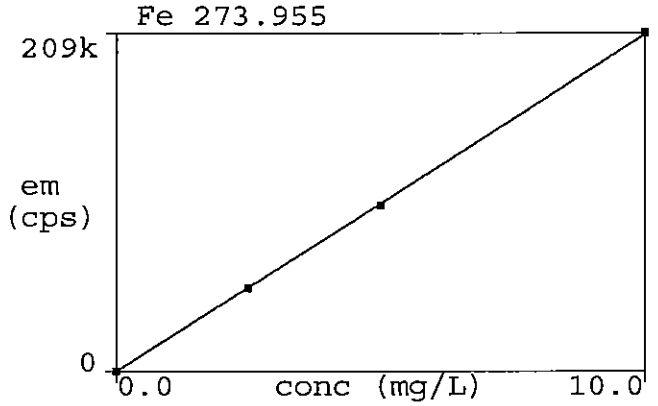
Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 0.9998

9



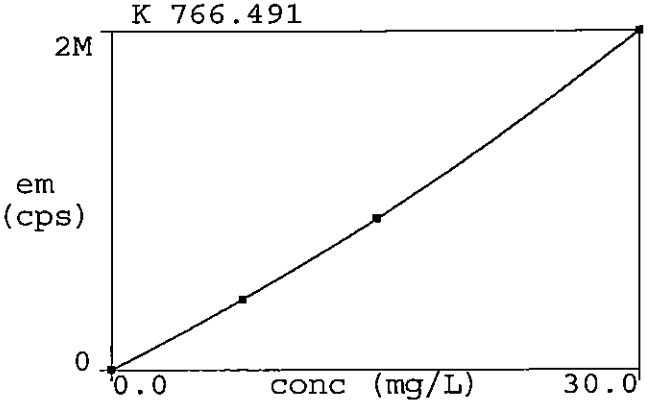
Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 0.9996

10



Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 0.9999

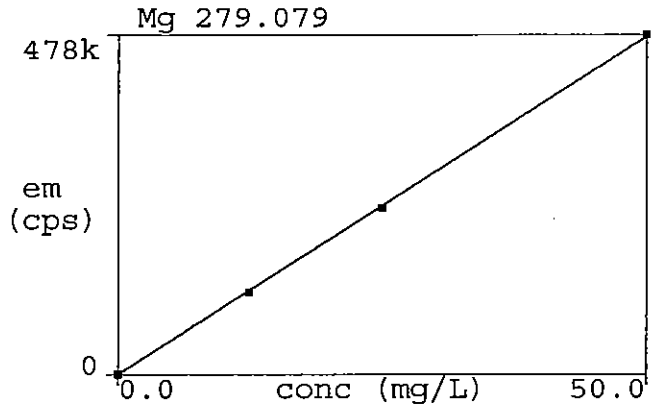
11



Calib.Eq'n: Non-Linear
Corr. Coeff.: 0.9980

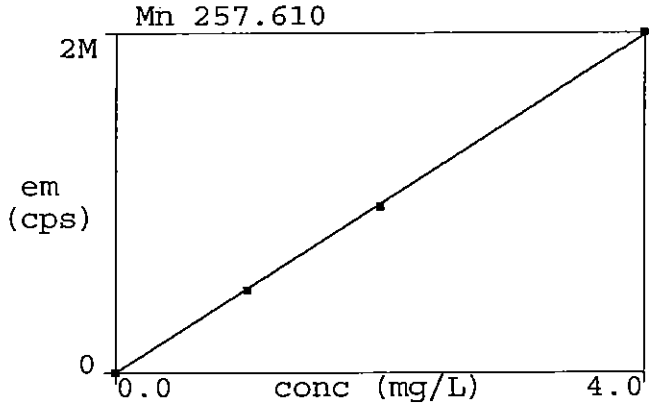
12

Method: 23ME
Result: 03M1374L



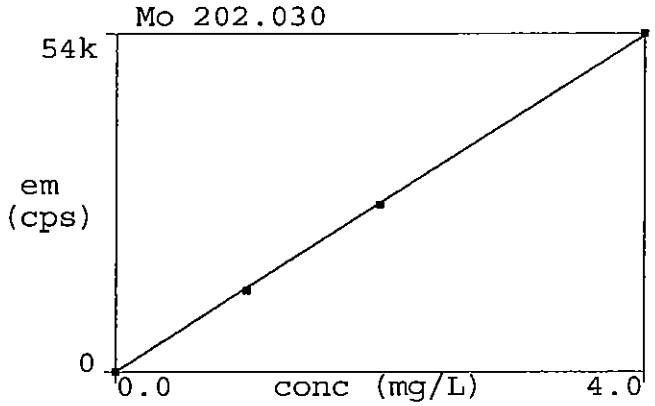
Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 0.9999

13



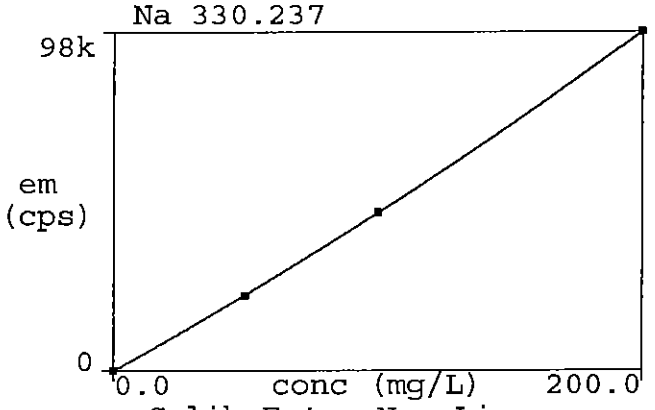
Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 0.9999

14



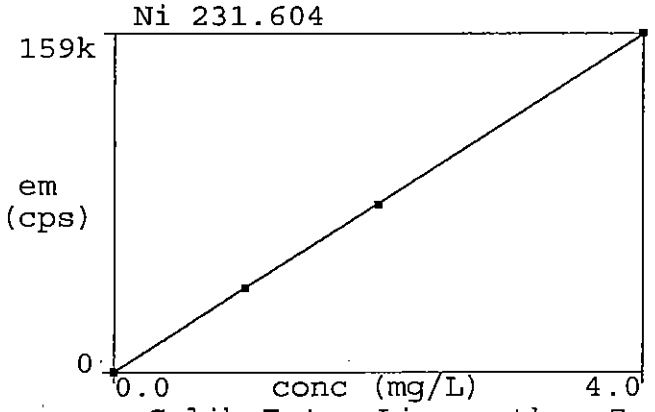
Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 0.9998

15



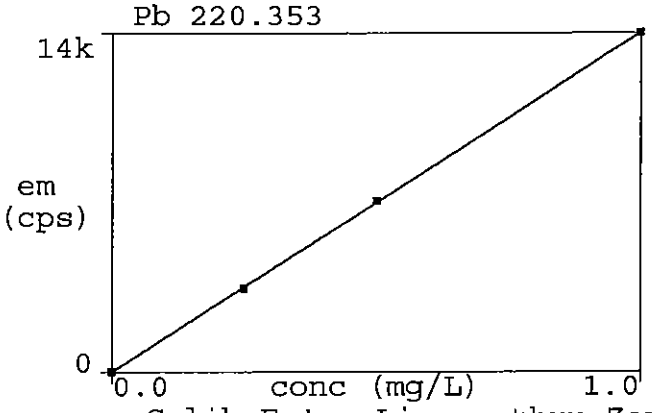
Calib.Eq'n: Non-Linear
Corr. Coeff.: 0.9991

16



Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 1.0000

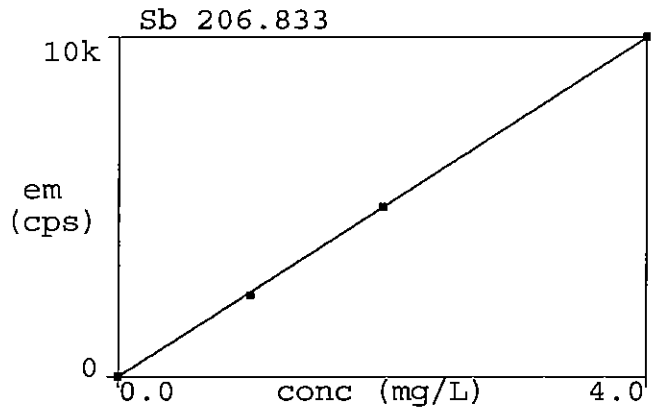
17



Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 1.0000

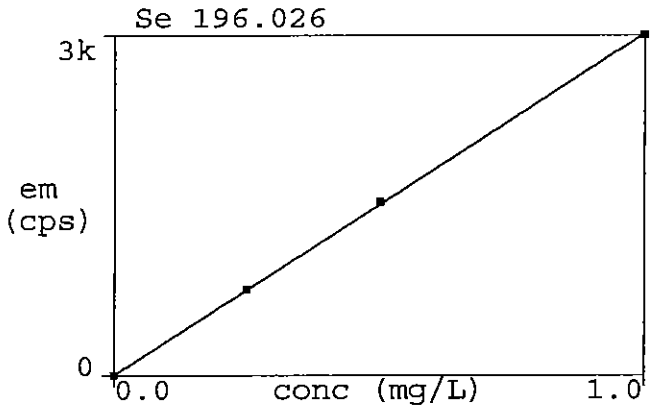
18

Method: 23ME
Result: 03M1374L



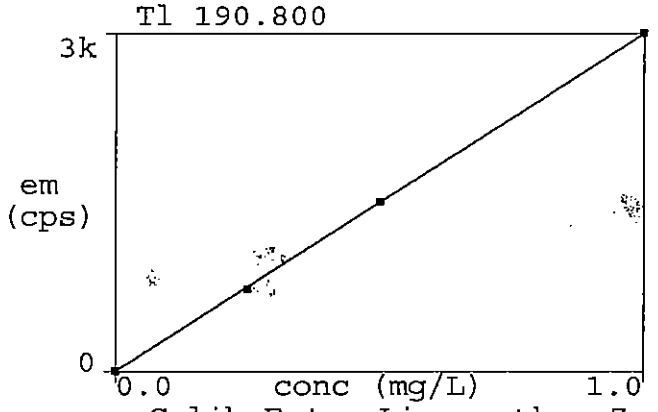
Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 0.9999

19



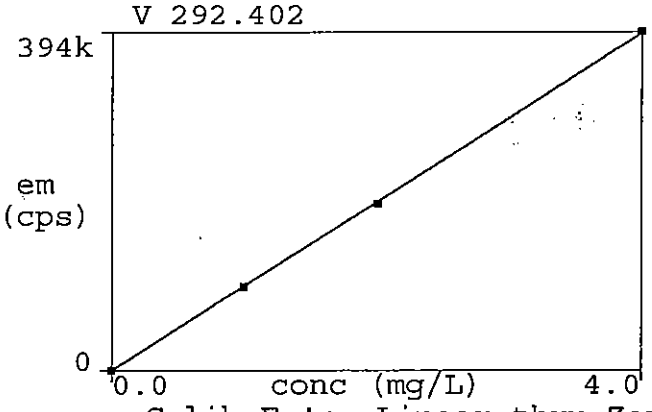
Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 0.9999

20



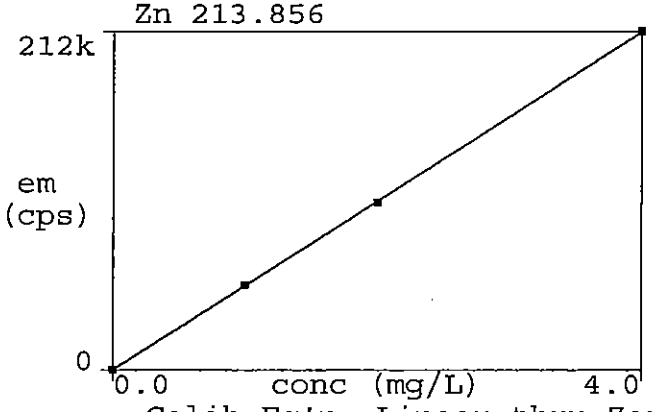
Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 1.0000

21



Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 0.9999

22



Calib.Eq'n: Linear-thru-Zero
Corr. Coeff.: 1.0000

23