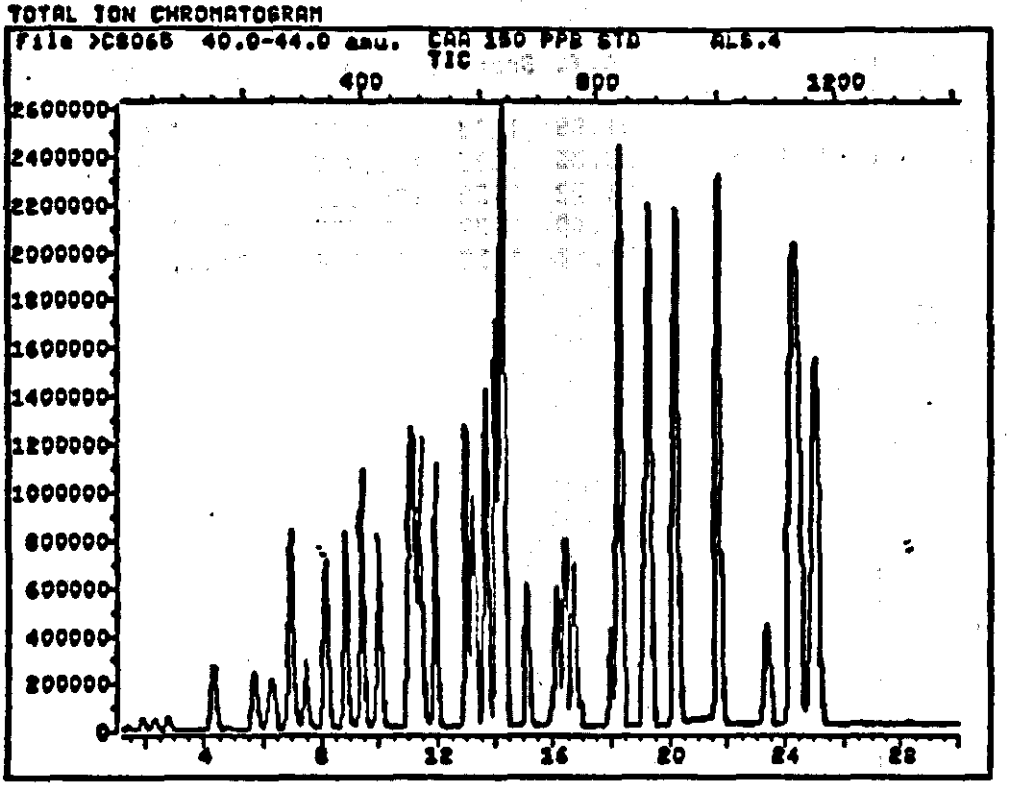
135934

TOTAL ION CHROMATOGRAM



Data File: >C8065::UP
Name: CAA 150 PPB STD
Misc: ALS.4

Id File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)
Last Calibration: 871001 09:22

Operator ID:
Quant Time: 871001 09:34
Injected at: 870930 15:43

AR303209

	Compound	R.T.	Scan#	Area	Conc	Units	Q
36)	TOLUENE	19.25	885	4503271	98.77	UG/L	95
37)	CHLOROBENZENE	20.19	931	6143518	97.58	UG/L	87

ORIGINAL (Red)

	Compound	R.T.	Scan#	Area	Conc	Units	Q
38)	ETHYL BENZENE	21.65	1003	3073168	93.65	UG/L	99
39)	BROMOFLUOROBENZENE (SS-3)	23.33	1085	1121745	99.11	UG/L	85
40)	STYRENE	24.22	1128	7054868	93.29	UG/L	95
41)	M-XYLENE	24.40	1137	3758086	91.62	UG/L	98
42)	O-XYLENE	24.40	1137	3758086	84.11	UG/L	94

* Compound is ISTD

ORIGINAL (red)

QUANT REPORT

Operator ID: Quant Rev: 4 Quant Time: 871001 09:37
Output File: ^C8056::P1 Injected at: 870930 17:26
Data File: >C8056::UP Dilution Factor: 1.00
Name: CAA 200 PPB STD
Misc: ALS:5

ID File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)
Last Calibration: 871001 09:22

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE IS-1	7.43	306	543560	50.00	UG/L	100
2)	CHLOROMETHANE	1.44	11	148253	48.89	UG/L	100
3)	BROMOMETHANE	1.82	35	194896	57.16	UG/L	96
4)	VINYL CHLORIDE	2.31	54	390737	78.52	UG/L	100
4)	VINYL CHLORIDE	2.73	75	8955	1.80	UG/L	100
4)	VINYL CHLORIDE	2.85	81	1446	.28	UG/L	100
5)	CHLOROETHANE	2.31	54	123866	36.85	UG/L	100
5)	CHLOROETHANE	2.75	76	317338	94.40	UG/L	100
6)	METHYLENE CHLORIDE	4.28	151	777146	185.35	UG/L	100
7)	ACETONE	6.80	275	986474	85.90	UG/L	100
7)	ACETONE	7.27	298	1654	.16	UG/L	100
8)	CARBON DISULFIDE	5.64	218	3045861	122.20	UG/L	97
9)	1,1-DICHLOROETHENE	6.88	279	2024399	85.23	UG/L	94
10)	1,1-DICHLOROETHANE	8.10	339	4639332	183.11	UG/L	99
11)	TRANS-1,2,DICHOROETHENE	8.78	372	2133372	100.64	UG/L	78
12)	CHLOROFORM	9.34	400	6031695	88.47	UG/L	97
13)	1,2-DICHLOROETHANE	9.86	430	3445165	100.84	UG/L	95
14)	D4-1,2-DICHLOROETHANE (SS-1)	9.87	426	790447	100.23	UG/L	81
15)	*1,4-DIFLUOROBENZENE IS-2	16.16	733	2184447	50.00	UG/L	100
16)	2-BUTANONE (MEK)	8.85	425	186321	134.38	UG/L	89
17)	1,1,1-TRICHLOROETHANE	11.02	482	3903122	111.87	UG/L	77
18)	CARBON TETRACHLORIDE	11.02	482	559864	14.44	UG/L	83
18)	CARBON TETRACHLORIDE	11.37	499	4547897	117.28	UG/L	94
19)	VINYL ACETATE	10.48	456	4753	.30	UG/L	100
19)	VINYL ACETATE	10.71	467	3794	.24	UG/L	100
19)	VINYL ACETATE	11.14	488	1888762	125.85	UG/L	100
19)	VINYL ACETATE	11.45	503	405002	25.63	UG/L	100
19)	VINYL ACETATE	11.74	517	4020	.25	UG/L	100
20)	BROMODICHLOROMETHANE	11.88	524	4351098	122.12	UG/L	95
21)	1,2-DICHLORO PROPANE	12.86	577	2639276	118.67	UG/L	89
22)	CIS-1,3-DICHLOROPROPENE	13.20	589	3140795	116.27	UG/L	98
23)	TRICHLOROETHENE	13.66	611	3090711	116.72	UG/L	94
24)	DIBROMOCHLOROMETHANE	14.18	637	3804679	113.82	UG/L	95
25)	1,1,2-TRICHLOROETHANE	14.28	641	1787895	108.81		
26)	BENZENE	13.60	608	3525	.05		
26)	BENZENE	13.64	610	1347	.02	UG/L	
26)	BENZENE	14.03	629	8148023	113.58	UG/L	100
27)	TRANS-1,3-DICHLOROPROPENE	14.26	640	2726923	106.01	UG/L	
28)	2-CHLOROETHYLVINYLETHER	15.11	682	1399333	121.83	UG/L	
29)	BROMOFORM	15.49	745	2558142	127.32	UG/L	87

AR303211

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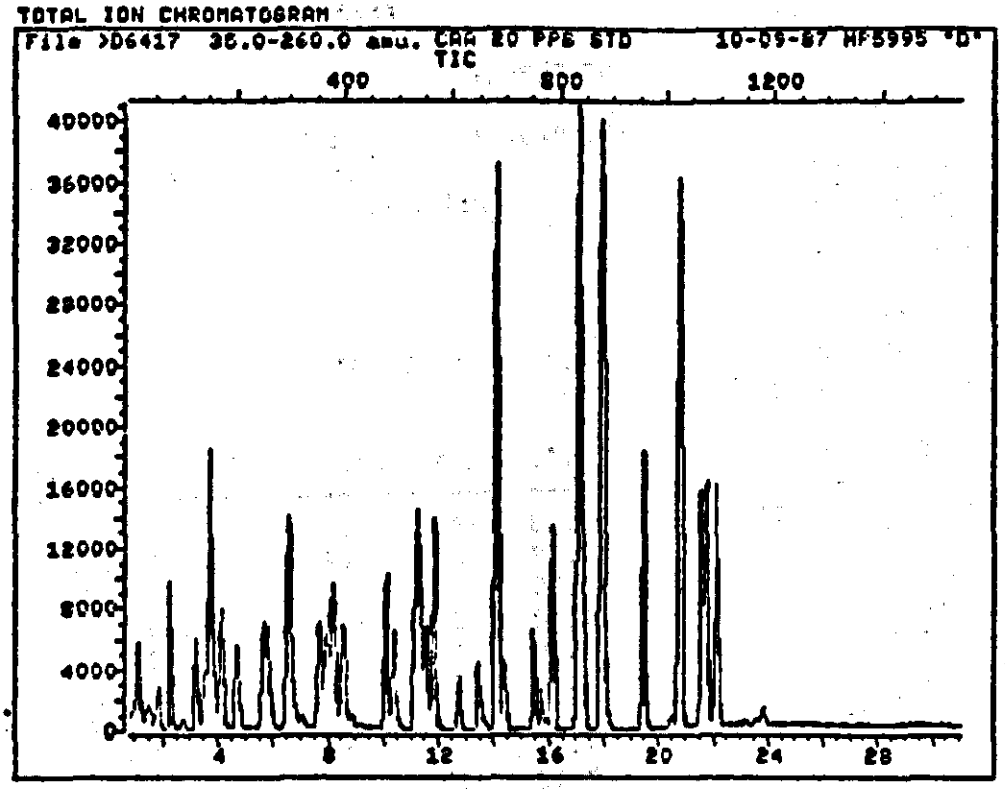
34)	1,1,2,2-TETRACHLOROETHANE	18.26	836	3372497	126.10 UG/L	95
35)	D-8 TOLUENE (SS-2)	19.12	878	2005256	111.41 UG/L	99

ORIGINAL (Red)

	Compound	R.T.	Scan#	Area	Conc	Units	q
36)	TOLUENE	19.26	885	6038392	127.82	UG/L	96
37)	CHLOROBENZENE	20.20	931	8112320	127.11	UG/L	89
38)	ETHYL BENZENE	21.67	1003	4115741	123.73	UG/L	99
39)	BROMOFLUOROBENZENE (SS-3)	23.34	1085	1187256	103.48	UG/L	81
40)	STYRENE	24.20	1127	9452382	123.32	UG/L	94
41)	M-XYLENE	24.39	1136	5075463	122.07	UG/L	99
42)	O-XYLENE	24.39	1136	5075463	112.06	UG/L	93
42)	O-XYLENE	24.97	1164	5594516	123.52	UG/L	96

• Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >D6417::D1
Name: CAA 20 PPB STD
Misc: 10-09-87 HP5995 "D" ALS,1

Id File: V0A624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871009 16:12

Operator ID: SHARYN
Quant Time: 871010 11:31
Injected at: 871010 10:53

AR303213

QUANT REPORT

ORIGINAL (Red)

Operator ID: SHARYN Quant Rev: 4 Quant Time: 871010 11:31
Output File: "D5417::49 Injected at: 871010 10:53
Data File: >D5417::D1 Dilution Factor: 1.00
Name: CAA 20 PPB STD
Misc: 10-09-87 HP5995 "D" ALS.1

ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871009 16:12

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	3.69	148	30331	50.00	UG/L	89
2)	CHLOROMETHANE	1.39	30	2418	46.79	UG/L	100
2)	CHLOROMETHANE	1.56	39	29	.56	UG/L	100
3)	BROMOMETHANE	1.52	37	4010	17.25	UG/L	98
4)	VINYL CHLORIDE	1.76	49	7806	27.28	UG/L	100
5)	CHLOROETHANE	1.86	54	8959	26.08	UG/L	100
6)	METHYLENE CHLORIDE	2.25	74	12394	17.28	UG/L	100
7)	ACETONE	2.72	98	4309	32.31	UG/L	100
7)	ACETONE	3.13	119	72	.54	UG/L	100
7)	ACETONE	3.24	125	73	.55	UG/L	100
7)	ACETONE	3.38	132	152	1.14	UG/L	100
7)	ACETONE	3.42	134	84	.63	UG/L	100
8)	CARBON DISULFIDE	3.18	122	29773	20.12	UG/L	100
9)	1,1-DICHLOROETHENE	4.10	169	12040	17.26	UG/L	95
10)	1,1-DICHLOROETHANE	4.69	199	24605	15.77	UG/L	99
11)	TRANS-1,2,DICHOROETHENE	5.80	256	11189	18.34	UG/L	80
12)	CHLOROFORM	5.65	248	27264	15.71	UG/L	98
13)	1,2-DICHLORDETHANE	6.62	298	22056	15.25	UG/L	94
13)	1,2-DICHLOROETHANE	7.68	352	1612	1.11	UG/L	89
14)	D4-1,2-DICHLOROETHANE (SS-1)	6.53	293	50657	84.02	UG/L	94
15)	•1,4-DIFLUOROBENZENE IS-2	14.09	680	112399	50.00	UG/L	100
16)	2-BUTANONE (MEK)	7.04	319	4325	14.00	UG/L	98
17)	1,1,1-TRICHLOROETHANE	7.68	352	22316	13.54	UG/L	91
18)	CARBON TETRACHLORIDE	7.68	352	2631	1.82	UG/L	91
18)	CARBON TETRACHLORIDE	8.17	377	20525	14.20	UG/L	97
20)	BROMODICHLOROMETHANE	11.37	541	11485	17.34	UG/L	92
21)	1,2-DICHLORO PROPANE	10.08	475	15189	15.69	UG/L	76
22)	TRANS-1,3-DICHLOROPROPENE	11.57	551	17991	15.05	UG/L	96
23)	TRICHLOROETHENE	11.22	533	16562	18.52	UG/L	91
24)	DIBROMOCHLOROMETHANE	11.12	528	17567	15.78	UG/L	97
25)	1,1,2-TRICHLOROETHANE	11.36	540	11738	18.44	UG/L	84
26)	BENZENE	11.82	564	44092	17.42	UG/L	100
26)	BENZENE	12.22	584	63	.02	UG/L	100
26)	BENZENE	12.29	588	25	.01	UG/L	100
26)	BENZENE	12.33	590	29	.01	UG/L	100
27)	CIS-1,3-DICHLOROPROPENE	10.38	490	18064	15.35	UG/L	90
28)	2-CHLOROETHYLVINYLETHER	12.72	610	5723	18.29	UG/L	84
29)	BROMOFORM	13.43	646	10603	17.10	UG/L	97
30)	•DS-CHLOROBENZENE IS-3	17.90	875	88730	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	14.35	693	13744	13.8		
32)	2-HEXANONE	15.73	764	9820	14.7		
33)	TETRACHLORDETHYLENE	16.14	785	12746	18.72	UG/L	95
34)	1,1,2,2-TETRACHLOROETHANE	15.46	750	16578	18.33	UG/	95
35)	D-8 TOLUENE (SS-2)	17.08	833	109914	98.29	UG	

AR303214

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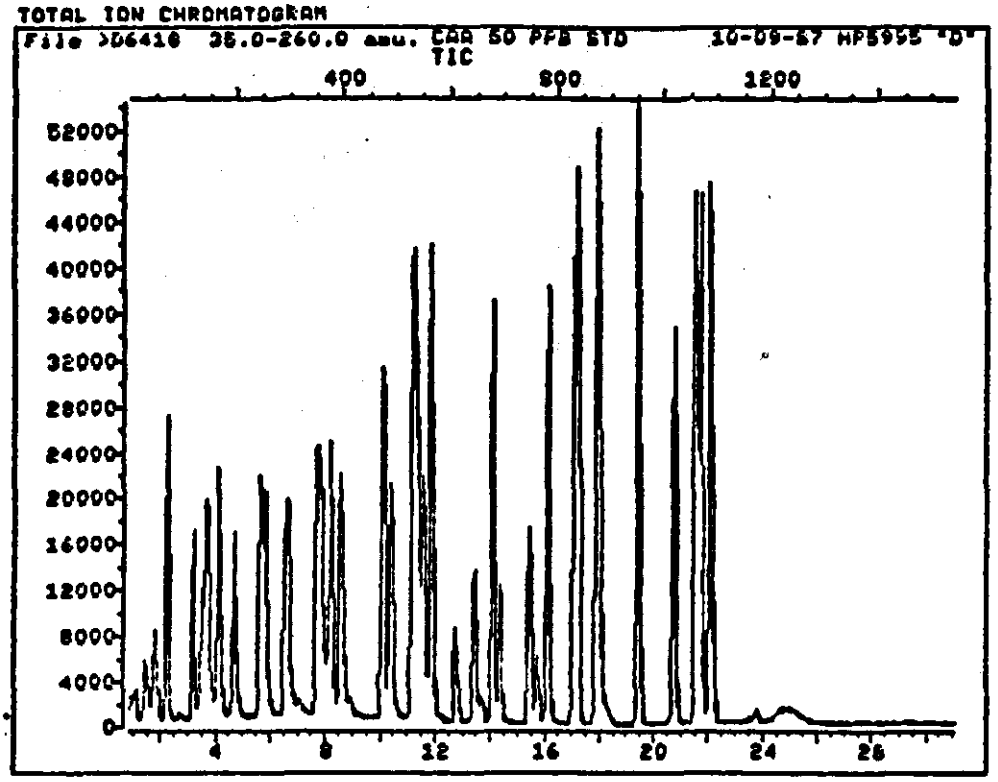
ORIGINAL (Red)

	Compound	R.T.	Scan#	Area	Conc	Units	
37)	CHLOROBENZENE	18.00	880	31910	17.63	UG/L	93
38)	ETHYL BENZENE	19.45	954	16611	17.58	UG/L	95
39)	BROMOFLUOROBENZENE (SS-3)	20.80	1023	57985	94.62	UG/L	80
40)	STYRENE	21.56	1062	35079	17.48	UG/L	87
41)	M-XYLENE	20.84	1025	39	.04	UG/L	1
41)	M-XYLENE	21.75	1072	19091	17.47	UG/L	87
41)	M-XYLENE	22.11	1090	19894	18.21	UG/L	84
42)	O-XYLENE	20.84	1025	39	.03	UG/L	1
42)	O-XYLENE	21.75	1072	19091	16.74	UG/L	87
42)	O-XYLENE	22.11	1090	19894	17.45	UG/L	84

* Compound is ISTD

AR303215



Data File: >D6418::D1
Name: CAA 50 PPB STD
Misc: 10-09-87 HP5995 "D" ALS.2

Id File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871009 16:12

Operator ID: SHARYN
Quant Time: 871010 12:19
Injected at: 871010 11:33

ORIGINAL (Red)

QUANT REPORT

Operator ID: SHARYN Quant Rev: 4 Quant Time: 871010 12:19
Output File: ^D6418::49 Injected at: 871010 11:33
Data File: >D6418::D1 Dilution Factor: 1.00
Name: CAA 50 PPB STD
Misc: 10-09-87 HP5995 "D" AL5.Z

ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871009 16:12

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	3.66	144	27135	50.00	UG/L	88
2)	CHLOROMETHANE	1.39	28	9399	203.32	UG/L	100
2)	CHLOROMETHANE	1.82	50	245	5.30	UG/L	100
3)	BROMOMETHANE	1.49	33	14028	67.46	UG/L	99
4)	VINYL CHLORIDE	1.72	45	23711	92.62	UG/L	100
4)	VINYL CHLORIDE	2.00	59	35	.14	UG/L	100
5)	CHLOROETHANE	1.72	45	4778	15.54	UG/L	100
5)	CHLOROETHANE	1.82	50	21662	70.47	UG/L	100
6)	METHYLENE CHLORIDE	2.21	70	34259	53.39	UG/L	100
6)	METHYLENE CHLORIDE	2.51	85	140	.22	UG/L	100
7)	ACETONE	2.21	70	108	.91	UG/L	100
7)	ACETONE	2.66	93	3691	30.94	UG/L	100
7)	ACETONE	3.07	114	110	.92	UG/L	100
7)	ACETONE	3.13	117	49	.41	UG/L	100
7)	ACETONE	3.29	125	314	2.63	UG/L	100
8)	CARBON DISULFIDE	3.17	119	85450	64.56	UG/L	100
8)	CARBON DISULFIDE	3.72	147	65	.05	UG/L	100
8)	CARBON DISULFIDE	3.78	150	72	.05	UG/L	100
8)	CARBON DISULFIDE	3.85	154	29	.02	UG/L	100
9)	1,1-DICHLOROETHENE	4.11	167	33705	54.00	UG/L	97
10)	1,1-DICHLOROETHANE	4.68	196	72498	51.95	UG/L	99
11)	TRANS-1,2,DICHOROETHENE	5.81	254	32230	59.04	UG/L	81
12)	CHLOROFORM	4.68	196	9645	6.21	UG/L	99
12)	CHLOROFORM	5.65	246	81044	52.20	UG/L	99
12)	CHLORDFORM	6.45	287	136	.09	UG/L	99
13)	1,2-DICHLOROETHANE	5.81	254	5925	4.58	UG/L	56
13)	1,2-DICHLOROETHANE	6.63	296	63033	48.71	UG/L	95
14)	D4-1,2-DICHLOROETHANE (SS-1)	6.53	291	48386	89.70	UG/L	85
15)	•1,4-DIFLUOROBENZENE IS-2	14.08	677	107878	50.00	UG/L	100
16)	2-BUTANONE (MEK)	7.04	317	9768	32.95	UG/L	92
17)	1,1,1-TRICHLOROETHANE	7.70	351	74466	47.08	UG/L	90
18)	CARBON TETRACHLORIDE	7.70	351	8674	5.25	UG/L	93
18)	CARBON TETRACHLORIDE	8.21	377	63257	45.60	UG/L	94
20)	BROMODICHLOROMETHANE	11.38	539	31853	50.11	UG/L	98
20)	BROMODICHLOROMETHANE	11.91	566	34	.05	UG/L	30
21)	1,2-DICHLORO PROPANE	10.11	474	46075	48.60	UG/L	78
22)	TRANS-1,3-DICHLOROPROPENE	11.56	548	54443	47.47	UG/L	84
23)	TRICHLOROETHENE	11.24	532	46717	54.44	UG/L	90
24)	DIBROMOCHLOROMETHANE	11.15	527	52648	49.28	UG	
24)	DIBROMOCHLOROMETHANE	11.75	558	45	.04	UG	
25)	1,1,2-TRICHLOROETHANE	11.38	539	30628	50.13	UG/L	86
26)	BENZENE	11.58	549	474	.20	UG/L	100
26)	BENZENE	11.85	563	129540	53.31	UG/L	100
26)	BENZENE	12.34	588	49	.02	UG	
26)	BENZENE	12.78	609	76	.03	UG	

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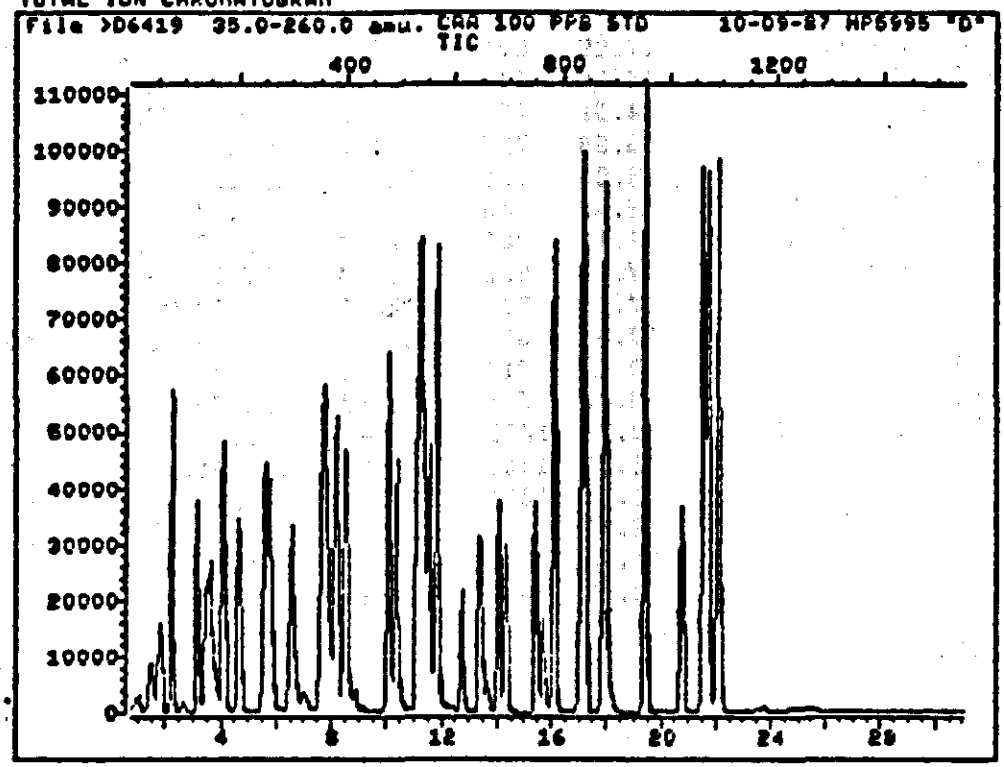
	Compound	R.T.	Scan#	Area	Conc	Units	Q
28)	2-CHLOROETHYLVINYLETHER	12.73	608	12308	40.98	UG/L	85
29)	BROMOFORM	13.41	643	31123	52.29	UG/L	97
30)	*DS-CHLOROBENZENE IS-3	17.87	871	84519	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	14.33	690	36244	38.40	UG/L	93
32)	2-HEXANONE	15.72	761	20341	32.16	UG/L	90
32)	2-HEXANONE	16.33	792	57	.09	UG/L	95
33)	TETRACHLOROETHYLENE	16.11	781	35783	55.19	UG/L	96
34)	1,1,2,2-TETRACHLOROETHANE	15.43	746	43595	50.62	UG/L	95
35)	D-8 TOLUENE (SS-2)	17.05	829	106550	100.03	UG/L	89
36)	TOLUENE	17.21	837	80684	53.67	UG/L	97
37)	CHLOROBENZENE	17.97	876	94511	54.80	UG/L	92
38)	ETHYL BENZENE	19.42	950	48948	54.38	UG/L	93
39)	BROMOFLUOROBENZENE (SS-3)	20.76	1019	56181	96.25	UG/L	84
40)	STYRENE	21.53	1058	103112	53.93	UG/L	87
41)	M-XYLENE	20.76	1019	42	.04	UG/L	41
41)	M-XYLENE	21.70	1067	55174	53.01	UG/L	87
41)	M-XYLENE	22.08	1086	58964	56.65	UG/L	85
42)	O-XYLENE	20.76	1019	42	.04	UG/L	41
42)	O-XYLENE	21.70	1067	55174	50.79	UG/L	87
42)	O-XYLENE	22.08	1086	58964	54.28	UG/L	85

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >D6419::D2
Name: CAA 100 PPB STD
Misc: 10-09-87 HP5995 "D" ALS.3

Id File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871009 16:12

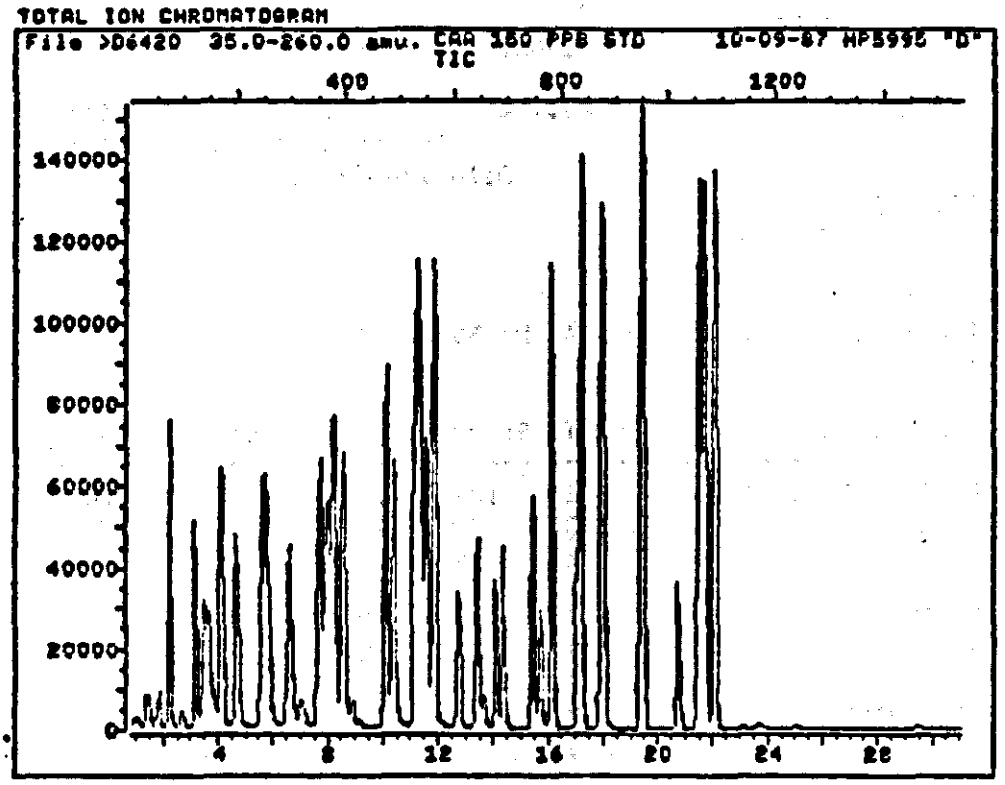
Operator ID: SHARYN
Quant Time: 871010 13:36
Injected at: 871010 12:58

	Compound	R.T.	Scan#	Area	Conc	Units	Q
30)	•D5-CHLOROBENZENE IS-3	17.85	874	88082	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	14.00	677	72	.07	UG/L	32
31)	4-METHYL-2-PENTANONE	14.31	693	87833	89.29	UG/L	92
32)	2-HEXANONE	15.68	763	55149	83.65	UG/L	92
33)	TETRACHLOROETHYLENE	16.09	784	78352	115.95	UG/L	95
34)	1,1,2,2-TETRACHLOROETHANE	15.41	749	93177	103.81	UG/L	94
34)	1,1,2,2-TETRACHLOROETHANE	16.11	785	2120	2.36	UG/L	31
35)	D-8 TOLUENE (SS-2)	17.03	832	107960	97.25	UG/L	92
36)	TOLUENE	17.17	839	170487	108.82	UG/L	98
37)	CHLOROBENZENE	17.95	879	195806	108.95	UG/L	97
37)	CHLOROBENZENE	18.56	910	71	.04	UG/L	83
38)	ETHYL BENZENE	19.40	953	102910	109.70	UG/L	93
39)	BROMOFLUOROBENZENE (SS-3)	20.75	1022	59104	97.16	UG/L	79
40)	STYRENE	21.51	1061	215199	108.01	UG/L	87
41)	M-XYLENE	21.70	1071	118086	108.86	UG/L	86
41)	M-XYLENE	22.06	1089	124583	114.85	UG/L	85
42)	O-XYLENE	21.70	1071	118086	104.32	UG/L	86
42)	O-XYLENE	22.06	1089	124583	110.05	UG/L	85

• Compound is ISTD

ORIGINAL

TOTAL ION CHROMATOGRAM



Data File: >D6420::D2
Name: CAA 150 PPB STD
Misc: 10-09-87 HP5995 "D" ALS.4

Id File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871009 16:12

Operator ID: SHARYN
Quant Time: 871010 14:16
Injected at: 871010 13:38

ORIGINAL (red)

QUANT REPORT

Operator ID: SHARYN Quant Rev: 4 Quant Time: 871010 14:16
Output File: ^D5420::49 Injected at: 871010 13:38
Data File: >D5420::D2 Dilution Factor: 1.00
Name: CAA 150 PPB STD
Misc: 10-09-87 HP5995 "D" AL5.4

ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871009 16:12

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	3.64	145	26877	50.00	UG/L	93
2)	CHLOROMETHANE	1.38	29	23708	517.76	UG/L	100
2)	CHLOROMETHANE	1.69	53	465	10.16	UG/L	100
3)	BROMOMETHANE	1.87	34	16967	82.37	UG/L	99
4)	VINYL CHLORIDE	1.73	47	18953	74.74	UG/L	100
5)	CHLOROETHANE	1.73	47	2933	9.63	UG/L	100
5)	CHLOROETHANE	1.85	53	27016	88.73	UG/L	100
6)	METHYLENE CHLORIDE	2.22	72	89188	140.34	UG/L	100
6)	METHYLENE CHLORIDE	2.63	93	37	.06	UG/L	100
7)	ACETONE	2.00	61	117	.99	UG/L	100
7)	ACETONE	2.14	68	126	1.07	UG/L	100
7)	ACETONE	2.22	72	568	4.81	UG/L	100
7)	ACETONE	2.69	96	22775	192.75	UG/L	100
7)	ACETONE	3.27	126	266	2.25	UG/L	100
8)	CARBON DISULFIDE	3.16	120	244275	186.33	UG/L	100
8)	CARBON DISULFIDE	3.92	159	64	.05	UG/L	100
9)	1,1-DICHLOROETHENE	4.09	168	96979	156.86	UG/L	97
10)	1,1-DICHLOROETHANE	4.66	197	206509	149.41	UG/L	98
11)	TRANS-1,2,DICHORDETHENE	5.42	236	805	1.49	UG/L	83
11)	TRANS-1,2,DICHORDETHENE	5.82	256	94696	175.14	UG/L	81
12)	CHLOROFORM	4.66	197	27465	17.86	UG/L	98
12)	CHLOROFORM	5.62	246	234387	152.42	UG/L	99
12)	CHLOROFORM	6.58	295	140	.09	UG/L	48
13)	1,2-DICHLOROETHANE	5.80	255	17430	13.60	UG/L	57
13)	1,2-DICHLOROETHANE	6.62	297	186203	145.27	UG/L	95
14)	D4-1,2-DICHLOROETHANE (SS-1)	6.54	293	51820	96.99	UG/L	94
15)	•1,4-DIFLUOROBENZENE IS-2	14.07	678	109077	50.00	UG/L	100
16)	2-BUTANONE (MEK)	7.05	319	40957	136.65	UG/L	95
17)	1,1,1-TRICHLOROETHANE	7.71	353	221813	138.69	UG/L	95
18)	CARBON TETRACHLORIDE	7.69	352	26265	18.73	UG/L	94
18)	CARBON TETRACHLORIDE	8.22	379	192522	137.26	UG/L	97
19)	VINYL ACETATE	9.16	427	3995	96.96	UG/L	97
19)	VINYL ACETATE	9.90	465	2493	60.50	UG/L	98
20)	BROMODICHLOROMETHANE	11.37	540	98587	153.38	UG/L	96
20)	BROMODICHLOROMETHANE	12.15	580	68	.11	UG/L	39
21)	1,2-DICHLORO PROPANE	10.10	475	131478	139.99	UG/L	81
22)	TRANS-1,3-DICHLOROPROPENE	11.55	549	172624	148.85	UG/L	94
23)	TRICHLOROETHENE	11.23	533	138915	160.10	UG/L	97
24)	DIBROMOCHLOROMETHANE	11.12	527	167700	155.25	UG/L	97
26)	BENZENE	11.55	549	1734	.71	UG/L	100
26)	BENZENE	11.82	563	375996	153.03	UG/L	100
27)	CIS-1,3-DICHLOROPROPENE	10.37	489	159199	148.18	UG/L	93
28)	2-CHLOROETHYLVINYLETHER	12.72	609	49852	164.15		
29)	BROMOFORM	13.38	643	107076	177.92		
30)	•D5-CHLOROBENZENE IS-3	17.86	872	86125	50.00	UG	
31)	4-METHYL-2-PENTANONE	14.32	681	132833	138.11	UG/L	91

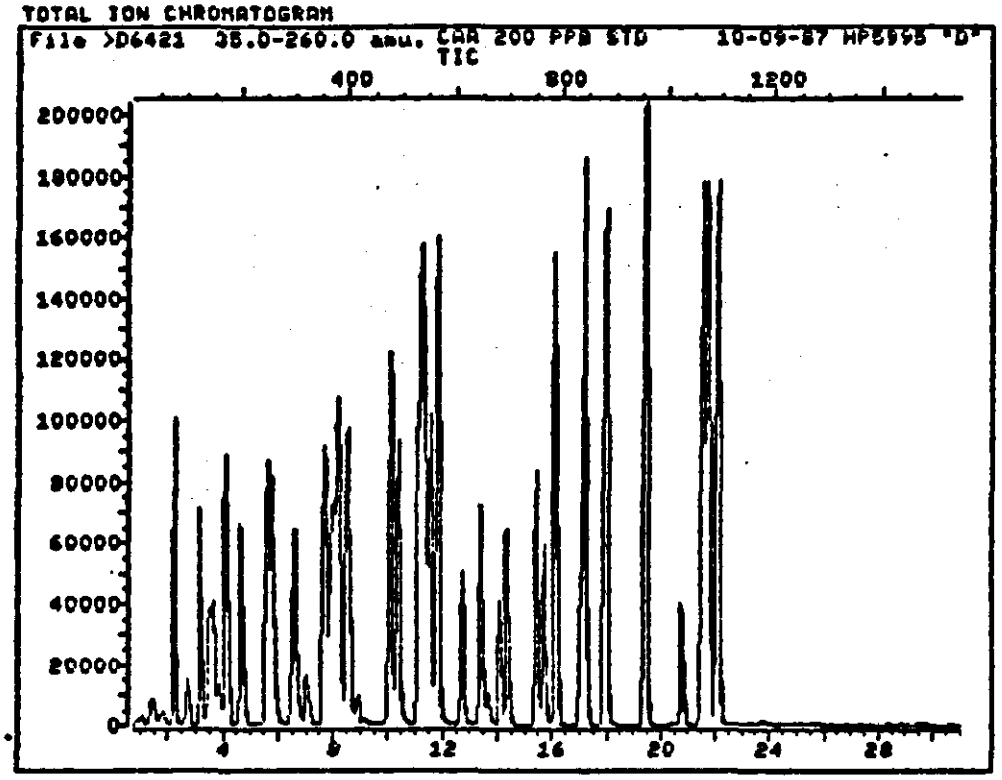
AR303222

AR303222

	Compound	R.T.	Scan#	Area	Conc	Units	Q
32)	2-HEXANONE	15.69	761	96146	149.16	UG/L	93
33)	TETRACHLOROETHYLENE	16.10	782	110259	166.87	UG/L	93
34)	1,1,2,2-TETRACHLOROETHANE	15.42	747	141371	161.08	UG/L	92
34)	1,1,2,2-TETRACHLOROETHANE	16.10	782	2926	3.33	UG/L	47
35)	D-8 TOLUENE (SS-2)	17.04	830	107321	98.88	UG/L	89
36)	TOLUENE	17.18	837	246371	160.83	UG/L	99
37)	CHLOROBENZENE	17.94	876	276445	157.31	UG/L	99
38)	ETHYL BENZENE	18.41	951	144511	157.55	UG/L	94
39)	BROMOFLUOROBENZENE (SS-3)	20.76	1020	58018	97.54	UG/L	82
40)	STYRENE	21.50	1058	305187	156.66	UG/L	87
41)	M-XYLENE	21.68	1067	167561	157.99	UG/L	88
41)	M-XYLENE	22.05	1086	173204	163.31	UG/L	84
42)	O-XYLENE	21.68	1067	167561	151.38	UG/L	88
42)	O-XYLENE	22.05	1086	173204	156.48	UG/L	84

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >D6421::D2
Name: CAA 200 PPB STD
Misc: 10-09-87 HP5995 "D" ALS.7

Id File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871009 16:12

Operator ID: MARK
Quant Time: 871010 16:37
Injected at: 871010 15:59

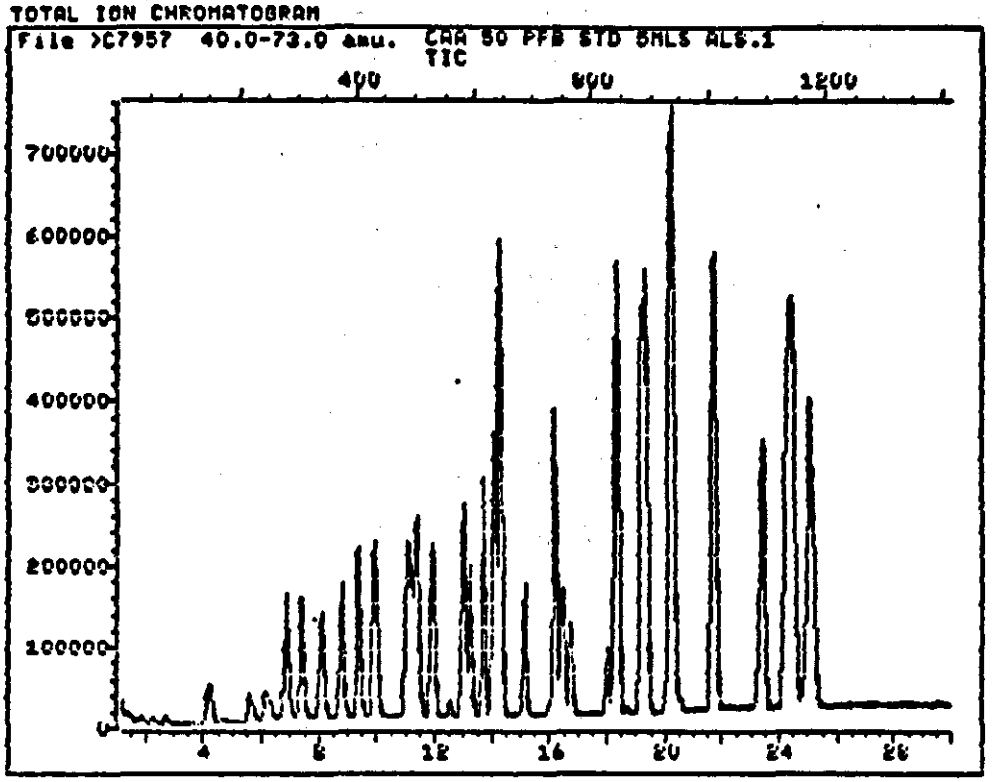
AR303224

	Compound	R.T.	Scan#	Area	Conc	Units	q
29)	BROMOFORM	13.38	645	164536	242.93	UG/L	96
30)	•DS-CHLOROBENZENE IS-3	17.88	875	94476	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	14.34	694	189227	179.35	UG/L	94
32)	2-HEXANONE	15.71	764	185399	262.19	UG/L	83
32)	2-HEXANONE	16.35	797	29	.04	UG/L	67
33)	TETRACHLOROETHYLENE	16.12	785	152574	218.50	UG/L	92
34)	1,1,2,2-TETRACHLOROETHANE	15.41	749	210473	218.61	UG/L	93
34)	1,1,2,2-TETRACHLOROETHANE	16.14	786	3289	3.42	UG/L	48
35)	D-8 TOLUENE (SS-2)	17.06	833	116916	98.19	UG/L	82
36)	TOLUENE	17.19	840	334331	198.96	UG/L	99
37)	CHLOROBENZENE	17.98	880	379026	196.62	UG/L	94
38)	ETHYL BENZENE	19.42	954	193447	192.25	UG/L	93
39)	BROMOFLUOROBENZENE (SS-3)	20.77	1023	62920	96.43	UG/L	80
40)	STYRENE	21.53	1062	413076	193.30	UG/L	87
41)	M-XYLENE	21.73	1072	227577	195.61	UG/L	90
41)	M-XYLENE	22.08	1090	238089	204.64	UG/L	88
42)	O-XYLENE	21.73	1072	227577	187.43	UG/L	90
42)	O-XYLENE	22.08	1090	238089	196.09	UG/L	88

• Compound is ISTD

AR303225

TOTAL ION CHROMATOGRAM



Data File: >C7557::UP
Name: CAA 50 PPB STD 5MLS
Misc: ALS.1

Id File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5953-QS (INSTR. C)
Last Calibration: 870523 15:45

Operator ID:
Quant Time: 870524 11:34
Injected at: 870524 10:46

ORIGINAL (Red)

QUANT REPORT

Operator ID: Quant Rev: 4 Quant Time: 870924 11:34
Output File: ^C7957::P1 Injected at: 870924 10:46
Data File: >C7957::UP Dilution Factor: 1.00
Name: CAA 50 PPB STD SMLS
Misc: ALS.1

ID File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)
Last Calibration: 870923 15:45

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	7.44	307	307135	50.00	UG/L	100
2)	CHLOROMETHANE	1.44	11	46615	11.44	UG/L	100
3)	BROMOMETHANE	1.90	34	36974	12.48	UG/L	95
4)	VINYL CHLORIDE	2.28	53	46565	10.13	UG/L	100
4)	VINYL CHLORIDE	2.45	61	1175	.26	UG/L	100
5)	CHLOROETHANE	2.24	51	1666	.55	UG/L	100
5)	CHLOROETHANE	2.28	53	6148	2.02	UG/L	100
5)	CHLOROETHANE	2.73	75	38313	12.59	UG/L	100
6)	METHYLENE CHLORIDE	4.23	149	107062	17.64	UG/L	100
7)	ACETONE	6.81	276	146521	122.92	UG/L	100
7)	ACETONE	7.03	287	1621	1.36	UG/L	100
8)	CARBON DISULFIDE	5.65	219	305207	15.86	UG/L	95
9)	1,1-DICHLOROETHENE	6.89	280	257391	21.16	UG/L	92
10)	1,1-DICHLOROETHANE	8.11	340	645435	21.53	UG/L	96
11)	TRANS-1,2,DICHOROETHENE	8.62	375	308620	23.17	UG/L	76
12)	CHLOROFORM	9.39	403	760041	25.14	UG/L	97
13)	1,2-DICHLOROETHANE	10.00	433	522303	41.93	UG/L	94
14)	D4-1,2-DICHLOROETHANE (SS-1)	9.92	429	431131	101.14	UG/L	90
15)	•1,4-DIFLUOROBENZENE IS-2	16.19	737	1487650	50.00	UG/L	100
16)	2-BUTANONE (MEK)	9.90	428	20069	44.15	UG/L	88
17)	1,1,1-TRICHLOROETHANE	11.08	486	630910	33.98	UG/L	77
18)	CARBON TETRACHLORIDE	11.10	487	90810	4.26	UG/L	95
18)	CARBON TETRACHLORIDE	11.40	502	686061	32.16	UG/L	93
19)	VINYL ACETATE	11.04	484	1213	.35	UG/L	100
19)	VINYL ACETATE	11.24	494	221894	70.57	UG/L	100
19)	VINYL ACETATE	11.71	517	1360	.43	UG/L	100
20)	BROMODICHLOROMETHANE	11.93	528	667097	49.49	UG/L	97
21)	1,2-DICHLORO PROPANE	12.95	580	406457	43.25	UG/L	85
22)	CIS-1,3-DICHLOROPROPENE	13.23	592	502401	55.65	UG/L	99
23)	TRICHLOROETHENE	13.70	615	471142	37.10	UG/L	93
24)	DIBROMOCHLOROMETHANE	14.25	642	628656	67.48	UG/L	99
25)	1,1,2-TRICHLOROETHANE	14.32	645	305291	78.91	UG/L	92
26)	BENZENE	14.07	633	1283429	36.21	UG/L	100
27)	TRANS-1,3-DICHLOROPROPENE	14.30	644	486652	69.21	UG/L	98
28)	2-CHLOROETHYLVINYLETHER	15.15	686	294924	110.93	UG/L	81
29)	BROMOFORM	16.45	750	370565	102.37	UG/L	90
30)	•D5-CHLOROBENZENE IS-3	20.15	932	1563010	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	16.75	765	467976	102.27	UG/L	89
32)	2-HEXANONE	18.03	828	338991	111.15		
33)	TETRACHLOROETHYLENE	18.34	843	363331	32.62		
34)	1,1,2,2-TETRACHLOROETHANE	18.32	842	594449	84.29	UG/L	93
35)	D-8 TOLUENE (SS-2)	18.16	863	1515848	91.65	UG	
36)	TOLUENE	18.32	891	1066353	33.64	UG	

AR303227

AR303227

35)	BROMOFLUOROBENZENE (SS-3)	23.41	1032	903052	109.10	UG/L	88

ORIGINAL (Red)

	Compound	R.T.	Scan#	Area	Conc	Units	
40)	STYRENE	24.29	1135	1699623	42.52	UG/L	94
41)	M-XYLENE	24.48	1144	914570	34.14	UG/L	99
42)	O-XYLENE	24.48	1144	914570	33.64	UG/L	92
42)	O-XYLENE	25.07	1173	1009728	37.14	UG/L	93

* Compound is ISTD

:QCAL,*C7957

Quant Output File: *C7857::P1
From ID File: CV624::P1
Quant Time: 870930 13:05

ORIGINAL (Red)

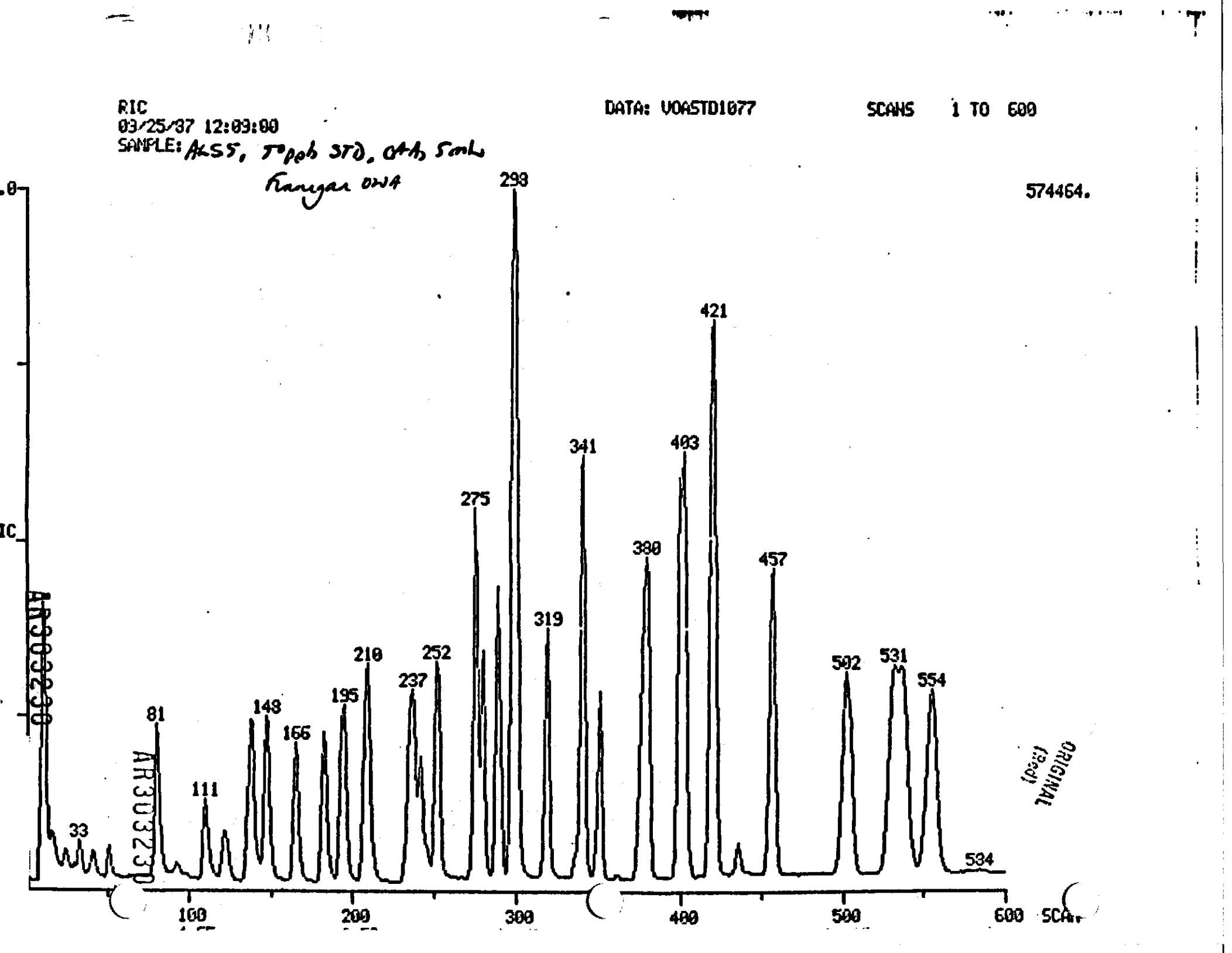
Quant ID File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)

Recalibrating.....

1)	BROMOCHLOROMETHANE IS-1	RT: 7.44	Scan: 307	(ISTD)	.1320
2)	CHLOROMETHANE	RT: 1.44	Scan: 11	(New Rf = ~~.151787~~)	
3)	BROMOMETHANE	RT: 1.80	Scan: 34	(New Rf = .120384)	
4)	VINYL CHLORIDE	RT: 2.28	Scan: 53	(New Rf = .151624)	
5)	CHLOROETHANE	RT: 2.73	Scan: 75	(New Rf = .124743)	
6)	METHYLENE CHLORIDE	RT: 4.23	Scan: 149	(New Rf = .348583)	
7)	ACETONE	RT: 6.81	Scan: 276	(New Rf = .477057)	
8)	CARBON DISULFIDE	RT: 5.65	Scan: 219	(New Rf = .993723)	
9)	1,1-DICHLOROETHENE	RT: 6.89	Scan: 280	(New Rf = ~~.9502757~~)	1.0759
10)	1,1-DICHLOROETHANE	RT: 8.11	Scan: 340	(New Rf =2.101483)	
11)	TRANS-1,2,DICHOROETHENE	RT: 8.82	Scan: 375	(New Rf =1.004835)	
12)	CHLOROFORM	RT: 9.39	Scan: 403	(New Rf =2.474615)	
13)	1,2-DICHLOROETHANE	RT: 10.00	Scan: 433	(New Rf =1.700565)	
14)	D4-1,2-DICHLOROETHANE (SS-1)	RT: 9.92	Scan: 429	(New Rf = .701859)	
15)	1,4-DIFLUOROBENZENE IS-2	RT: 16.19	Scan: 737	(ISTD)	
16)	2-BUTANONE (MEK)	RT: 9.90	Scan: 428	(New Rf = .013490)	
17)	1,1,1-TRICHLOROETHANE	RT: 11.08	Scan: 486	(New Rf = .424098)	
18)	CARBON TETRACHLORIDE	RT: 11.40	Scan: 502	(New Rf = .451171)	
19)	VINYL ACETATE	RT: 11.24	Scan: 494	(New Rf = .149157)	
20)	BROMODICHLOROMETHANE	RT: 11.93	Scan: 528	(New Rf = .448423)	
21)	1,2-DICHLORO PROPANE	RT: 12.99	Scan: 580	(New Rf = .273248)	
22)	CIS-1,3-DICHLOROPROPENE	RT: 13.23	Scan: 592	(New Rf = .337715)	
23)	TRICHLOROETHENE	RT: 13.70	Scan: 615	(New Rf = .316702)	
24)	DIBROMOCHLORDMETHANE	RT: 14.25	Scan: 642	(New Rf = .422583)	
25)	1,1,2-TRICHLOROETHANE	RT: 14.32	Scan: 645	(New Rf = .205217)	
26)	BENZENE	RT: 14.07	Scan: 633	(New Rf = .852722)	
27)	TRANS-1,3-DICHLOROPROPENE	RT: 14.30	Scan: 644	(New Rf = .327128)	
28)	2-CHLOROETHYLVINYLETHER	RT: 15.15	Scan: 686	(New Rf = .198248)	
29)	BROMOFORM	RT: 16.45	Scan: 750	(New Rf = .249094)	
30)	D5-CHLOROBENZENE IS-3	RT: 20.15	Scan: 932	(ISTD)	
31)	4-METHYL-2-PENTANONE	RT: 16.75	Scan: 765	(New Rf = .299407)	
32)	2-HEXANONE	RT: 18.03	Scan: 828	(New Rf = .216883)	
33)	TETRACHLOROETHYLENE	RT: 18.34	Scan: 843	(New Rf = .232456)	
34)	1,1,2,2-TETRACHLOROETHANE	RT: 18.32	Scan: 842	(New Rf = .380323)	
35)	D-8 TOLUENE (SS-2)	RT: 19.16	Scan: 883	(New Rf = .484913)	
36)	TOLUENE	RT: 19.32	Scan: 891	(New Rf = .682243)	
37)	CHLOROBENZENE	RT: 20.26	Scan: 937	(New Rf = .884269)	
38)	ETHYL BENZENE	RT: 21.72	Scan: 1009	(New Rf = .476984)	
39)	BROMOFLUOROBENZENE (SS-3)	RT: 23.41	Scan: 1092	(New Rf = .268883)	
40)	STYRENE	RT: 24.29	Scan: 1135	(New Rf =1.087404)	
41)	M-XYLENE	RT: 24.48	Scan: 1144	(New Rf = .585134)	
42)	O-XYLENE	RT: 25.07	Scan: 1173	(New Rf = .646015)	

Done

AR303229


RIC
03/25/37 12:09:00
SAMPLE: AK55, Topo STD, 04h Soil
Kanyar ONA
DATA: VOASTD1077
SCANS 1 TO 600
574464.
298
421
403
341
275
380
457
319
210
252
237
195
148
166
81
111
33
502
531
554
534
100
200
300
400
500
600
SCAN
AR3U3230
ORIGINAL (Red)

:NNIGAN ORGANICS IN WATER ANALYZER
.JANTITATION REPORT FILE: VOASTD1077

)ATA: VOASTD1077.TI
)9/25/87 12:09:00
SAMPLE:
( )TTED BY: ANALYST:

ORIGINAL (Red)

)MOUNT=AREA(HGHT) * REF.AMNT/(REF.AREA(HGHT)* RESP.FACT)
)ESP. FAC. FROM LIBRARY ENTRY

ND	NAME
1	BROMOCHLOROMETHANE (INTERNAL STANDARD #1)
2	CHLOROMETHANE
3	BROMOMETHANE
4	VINYL CHLORIDE
5	CHLOROETHANE
6	METHYLENE CHLORIDE
7	ACETONE
8	CARBON DISULFIDE
9	1,1-DICHLOROETHYLENE
10	1,1-DICHLOROETHANE
11	TRANS-1,2-DICHLOROETHYLENE
12	CHLOROFORM
13	1,2-DICHLOROETHANE
14	D4-1,2-DICHLOROETHANE (SURROGATE STANDARD 1)
15	1,4-DIFLUOROBENZENE (INTERNAL STANDARD 2)
16	2-BUTANONE (MEK)
17	1,1,1-TRICHLOROETHANE
18	CARBON TETRACHLORIDE
19	VINYL ACETATE
20	BROMODICHLOROMETHANE
21	1,2-DICHLOROPROPANE
22	CIS-1,3-DICHLOROPROPENE
23	TRICHLOROETHYLENE
24	DIBROMOCHLOROMETHANE
25	1,1,2-TRICHLOROETHANE
26	BENZENE
27	TRANS-1,3-DICHLOROPROPENE
28	2-CHLOROETHYL VINYL ETHER
29	BROMOFORM
30	D8-TOLUENE (SURROGATE STANDARD 2)
31	D5-CHLOROBENZENE (INTERNAL STANDARD 3)
32	4-METHYL-2-PENTANONE (MIBK)
33	2-HEXANONE (MPK)
34	TETRACHLOROETHYLENE
35	1,1,2,2-TETRACHLOROETHANE
36	TOLUENE
37	CHLOROBENZENE
38	ETHYLBENZENE
39	STYRENE
40	META-XYLENE
41	ORTHO,PARA-XYLENES
42	D8-TOLUENE (SURROGATE STANDARD 2)
43	4-BROMOFLUOROBENZENE (SURROGATE STANDARD 3)

ND	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	
1	130	148	7:17	1	1.000	A BB	78559.	50.000 UG/L	1.97

AR303231

AR303231

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
2	50	24	1:11	1	0.162	A BB	42283.	47.015	UG/L	1.85
3	94	33	1:37	1	0.223	A BB	34022.	46.776	UG/L	1.84
4	62	41	2:01	1	0.277	A BV	45751.	47.384	UG/L	1.86
5	64	52	2:33	1	0.351	A BB	39700.	49.459	UG/L	1.95
	84	81	3:59	1	0.547	A BV	77230.	49.859	UG/L	1.96
	43	93	4:34	1	0.628	A BB	19840.	279.477	UG/L	11.00
8	76	111	5:27	1	0.750	A BB	216232.	48.334	UG/L	1.90
9	96	138	6:47	1	0.932	A BB	92267.	48.945	UG/L	1.93
10	63	166	8:10	1	1.122	A BB	259645.	49.697	UG/L	1.96
11	96	183	9:00	1	1.236	A BB	94427.	48.442	UG/L	1.91
12	83	195	9:35	1	1.318	A BB	220226.	49.914	UG/L	1.96
13	62	211	10:22	1	1.426	A BB	164636.	53.245	UG/L	2.10
14	65	209	10:17	1	1.412	A BB	144675.	106.004	PRCNT	4.17
15	114	340	16:43	15	1.000	A BB	355574.	50.000	UG/L	1.97
16	72	210	10:19	15	0.618	A BB	9502.	75.651	UG/L	2.98
17	97	235	11:33	15	0.691	A BB	119376.	50.356	UG/L	1.98
18	117	242	11:54	15	0.712	A VB	87128.	50.170	UG/L	1.97
19	NOT	FOUND								
20	83	252	12:23	15	0.741	A BB	195840.	49.778	UG/L	1.96
21	63	275	13:31	15	0.809	A BB	211654.	49.821	UG/L	1.96
22	75	300	14:45	15	0.882	A BB	143662.	47.682	UG/L	1.88
23	130	289	14:13	15	0.850	A BV	119601.	49.508	UG/L	1.95
24	129	297	14:36	15	0.874	A BB	122170.	50.278	UG/L	1.98
25	97	300	14:45	15	0.882	A VB	128246.	47.800	UG/L	1.88
26	78	298	14:39	15	0.876	A BB	440784.	49.825	UG/L	1.96
27	75	280	13:46	15	0.824	A BB	154228.	47.419	UG/L	1.87
28	63	319	15:41	15	0.938	A BB	150247.	52.727	UG/L	2.07
29	173	341	16:46	15	1.003	A BB	65452.	50.618	UG/L	1.99
30	98	400	19:40	15	1.176	A BB	351984.	99.152	PRCNT	3.90
31	117	419	20:36	31	1.000	A BB	319771.	50.000	UG/L	1.97
	43	351	17:15	31	0.838	A VB	242191.	48.778	UG/L	1.92
33	43	376	18:29	31	0.897	A BB	158829.	53.468	UG/L	2.10
34	164	381	18:44	31	0.909	A BB	89724.	49.092	UG/L	1.93
35	83	378	18:35	31	0.902	A BB	243582.	50.018	UG/L	1.97
36	92	403	19:49	31	0.962	A BB	235903.	49.173	UG/L	1.93
37	112	422	20:45	31	1.007	A BB	286846.	48.878	UG/L	1.92
38	106	457	22:28	31	1.091	A BB	161977.	48.602	UG/L	1.91
39	104	530	26:03	31	1.265	A BB	293658.	50.822	UG/L	2.00
40	106	537	26:24	31	1.282	A BB	184129.	49.955	UG/L	1.97
41	106	555	27:17	31	1.325	A BB	201071.	50.539	UG/L	1.99
42	98	400	19:40	31	0.955	A BB	351984.	98.489	PRCNT	3.88
43	95	502	24:41	31	1.198	A BB	285412.	98.361	PRCNT	3.87

ORIGINAL (Red)

AR303232

NKNOWN SAMPLE QUANTITATION DWA REVERSE SEARCH STATUS REPORT

HE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 24 % OF THE LAST STANDARD RUN
OMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUA

RT / NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
1	148	148	914	839	1	1	1	0
2	24	24	821	810	2	1	1	0
3	33	33	813	780	3	1	1	0
4	41	41	753	724	4	1	1	0
5	51	52	840	812	5	1	1	0
6	81	81	938	804	6	1	1	0
7	92	93	701	685	7	1	1	0
8	111	111	978	694	8	1	1	0
9	139	138	957	723	9	1	1	0
10	166	166	937	886	10	1	1	0
11	184	183	925	855	11	1	1	0
12	195	195	955	890	12	1	1	0
13	211	210	764	622	13	1	1	0
14	209	209	934	647	14	1	1	0

HE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -3 % OF THE LAST STANDARD RUN
OMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUB

EPORT NTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
[illegible]	340	340	969	703	1	1	1	0
	211	210	920	163	2	1	1	0
	236	235	917	770	3	1	1	0
18	243	242	900	827	4	1	1	0
20	253	252	964	899	6	1	1	0
21	275	275	911	865	7	1	1	0
22	300	300	854	394	8	1	1	0
23	289	289	967	887	9	1	1	0
24	297	297	871	336	10	1	1	0
25	300	300	910	473	11	1	1	0
26	298	298	902	552	12	1	1	0
27	280	280	730	650	13	1	1	0
28	319	319	782	764	14	1	1	0
29	341	341	845	236	15	1	1	0
30	400	400	942	852	16	1	1	0

HE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 6097 % OF THE LAST STANDARD RUN
OMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUC

EPORT NTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
31	420	420	975	651	1	1	1	0
32	352	351	853	832	2	1	1	0
33	376	376	899	675	3	1	1	0
34	382	381	967	864	4	1	1	0
	379	378	979	794	5	1	1	0
	404	403	951	828	6	1	1	0
/	422	422	976	737	7	1	1	0
38	457	457	963	868	8	1	1	
39	531	530	969	837	9	1	1	
						**		
40	538	554	957	824	10	2	1	
						**		

AR303233

AR303233

41	555	536	968	839	11	2	1	0
42	401	400	942	852	12	1	1	0
43	503	502	926	789	13	1	1	0

NUMBER OF COMPOUNDS IDENTIFIED 42
PROCESSING OF VOASTD1077 COMPLETED ON 9/25/87 13:31:04

ORIGINAL (Red)

AR303234

JANTITATION REPORT FILE: VOASTD1077

ATA: VOASTD1077.TI
9/25/87 12:09:00
AMPLE:
UBMITTED BY: ANALYST:

.T=AREA(HGHT) * REF.AMNT/(REF.AREA(HGHT)* RESP.FACT)
ESP. FAC. FROM LIBRARY ENTRY

ND	NAME
1	BROMOCHLOROMETHANE (INTERNAL STANDARD #1)
2	CHLOROMETHANE
3	BROMOMETHANE
4	VINYL CHLORIDE
5	CHLOROETHANE
6	METHYLENE CHLORIDE
7	ACETONE
8	CARBON DISULFIDE
9	1,1-DICHLOROETHYLENE
10	1,1-DICHLOROETHANE
11	TRANS-1,2-DICHLOROETHYLENE
12	CHLOROFORM
13	1,2-DICHLOROETHANE
14	D4-1,2-DICHLOROETHANE (SURROGATE STANDARD 1)
15	1,4-DIFLUOROBENZENE (INTERNAL STANDARD 2)
16	2-BUTANONE (MEK)
17	1,1,1-TRICHLOROETHANE
18	CARBON TETRACHLORIDE
19	VINYL ACETATE
20	BROMODICHLOROMETHANE
21	1,2-DICHLOROPROPANE
22	CIS-1,3-DICHLOROPROPENE
23	TRICHLOROETHYLENE
24	DIBROMOCHLOROMETHANE
25	1,1,2-TRICHLOROETHANE
26	BENZENE
27	TRANS-1,3-DICHLOROPROPENE
28	2-CHLOROETHYL VINYL ETHER
29	BROMOFORM
30	D8-TOLUENE (SURROGATE STANDARD 2)
31	D5-CHLOROBENZENE (INTERNAL STANDARD 3)
32	4-METHYL-2-PENTANONE (MIBK)
33	2-HEXANONE (NPK)
34	TETRACHLOROETHYLENE
35	1,1,2,2-TETRACHLOROETHANE
36	TOLUENE
37	CHLOROBENZENE
38	ETHYLBENZENE
39	STYRENE
40	META-XYLENE
41	ORTHO, PARA-XYLENES
42	DB-TOLUENE (SURROGATE STANDARD 2)
43	4-BROMOFLUOROBENZENE (SURROGATE STANDARD 3)

ND	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
1	130	148	7:17	1	1.000	A BB	78559.	50.000 UG/L	100

AR303235

AR303235

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		XTOT
2	50	24	1:11	1	0.162	A BB	42283.	47.015	UG/L	1.65
3	94	33	1:37	1	0.223	A BB	34022.	46.776	UG/L	1.84
4	62	41	2:01	1	0.277	A BV	45751.	47.384	UG/L	1.86
[illegible]	64	52	2:33	1	0.351	A BB	39700.	49.459	UG/L	1.95
[illegible]	84	81	3:59	1	0.547	A BV	77230.	49.859	UG/L	1.96
[illegible]	43	93	4:34	1	0.628	A BB	19840.	279.477	UG/L	11.00
8	76	111	5:27	1	0.750	A BB	216232.	48.334	UG/L	1.90
9	96	138	6:47	1	0.932	A BB	92267.	48.945	UG/L	1.93
10	63	166	8:10	1	1.122	A BB	259645.	49.697	UG/L	1.96
11	96	183	9:00	1	1.236	A BB	94427.	48.442	UG/L	1.91
12	83	195	9:35	1	1.318	A BB	220226.	49.914	UG/L	1.96
13	62	211	10:22	1	1.426	A BB	164636.	53.245	UG/L	2.10
14	65	209	10:17	1	1.412	A BB	144675.	106.004	PRCNT	4.17
15	114	340	16:43	15	1.000	A BB	355574.	50.000	UG/L	1.97
16	72	210	10:19	15	0.618	A BB	9502.	75.651	UG/L	2.98
17	97	235	11:33	15	0.691	A BB	119376.	50.356	UG/L	1.98
18	117	242	11:54	15	0.712	A VB	87128.	50.170	UG/L	1.97
19	NOT FOUND									
20	83	252	12:23	15	0.741	A BB	195840.	49.778	UG/L	1.96
21	63	275	13:31	15	0.809	A BB	211654.	49.821	UG/L	1.96
22	75	300	14:45	15	0.882	A BB	143662.	47.682	UG/L	1.88
23	130	289	14:13	15	0.850	A BV	119601.	49.508	UG/L	1.95
24	129	297	14:36	15	0.874	A BB	122170.	50.278	UG/L	1.98
25	97	300	14:45	15	0.882	A VB	128246.	47.600	UG/L	1.88
26	78	298	14:39	15	0.876	A BB	440784.	49.825	UG/L	1.96
27	75	280	13:46	15	0.824	A BB	154228.	47.419	UG/L	1.87
28	63	319	15:41	15	0.938	A BB	150247.	52.727	UG/L	2.07
29	173	341	16:46	15	1.003	A BB	65452.	50.618	UG/L	1.99
30	98	400	19:40	15	1.176	A BB	351984.	99.152	PRCNT	3.90
[illegible]	117	419	20:36	31	1.000	A BB	319771.	50.000	UG/L	1.97
[illegible]	43	351	17:15	31	0.838	A VB	242191.	48.778	UG/L	1.92
33	43	376	18:29	31	0.897	A BB	158829.	53.468	UG/L	2.10
34	164	381	18:44	31	0.909	A BB	89724.	49.092	UG/L	1.93
35	83	378	18:35	31	0.902	A BB	243582.	50.018	UG/L	1.97
36	92	403	19:49	31	0.962	A BB	235903.	49.173	UG/L	1.93
37	112	422	20:45	31	1.007	A BB	286846.	48.878	UG/L	1.92
38	106	457	22:28	31	1.091	A BB	161977.	48.602	UG/L	1.91
39	104	530	26:03	31	1.265	A BB	293658.	50.822	UG/L	2.00
40	106	537	26:24	31	1.282	A BB	184129.	49.955	UG/L	1.97
41	106	555	27:17	31	1.325	A BB	201071.	50.539	UG/L	1.99
42	98	400	19:40	31	0.955	A BB	351984.	98.489	PRCNT	3.88
43	95	502	24:41	31	1.198	A BB	285412.	98.361	PRCNT	3.87

NO	RET(L)	RATIO	RRT(L)	RATIO	AMNT	AMNT(L)	R.FAC	R.FAC(L)	RATIO
1	7:17	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
2	1:11	1.00	0.162	1.00	47.01	50.00	0.538	0.572	0.94
3	1:37	1.00	0.223	1.00	46.78	50.00	0.433	0.463	0.94
4	2:01	1.00	0.277	1.00	47.38	50.00	0.582	0.615	0.95
5	2:30	1.02	0.345	1.02	49.46	50.00	0.505	0.511	0.99
6	3:59	1.00	0.547	1.00	49.86	50.00	0.983	0.986	1.00
7	4:31	1.01	0.622	1.01	279.48	200.00	0.063	0.045	1.40
8	5:27	1.00	0.750	1.00	48.33	50.00	2.752	2.847	0.97
9	6:50	0.99	0.939	0.99	48.95	50.00	1.174	1.200	0.98
10	8:10	1.00	1.122	1.00	49.70	50.00	3.305	3.325	0.99
11	9:03	0.99	1.243	0.99	48.44	50.00	1.202	1.240	0.97
12	9:35	1.00	1.318	1.00	49.91	50.00	2.803	2.808	1.00

AR303236

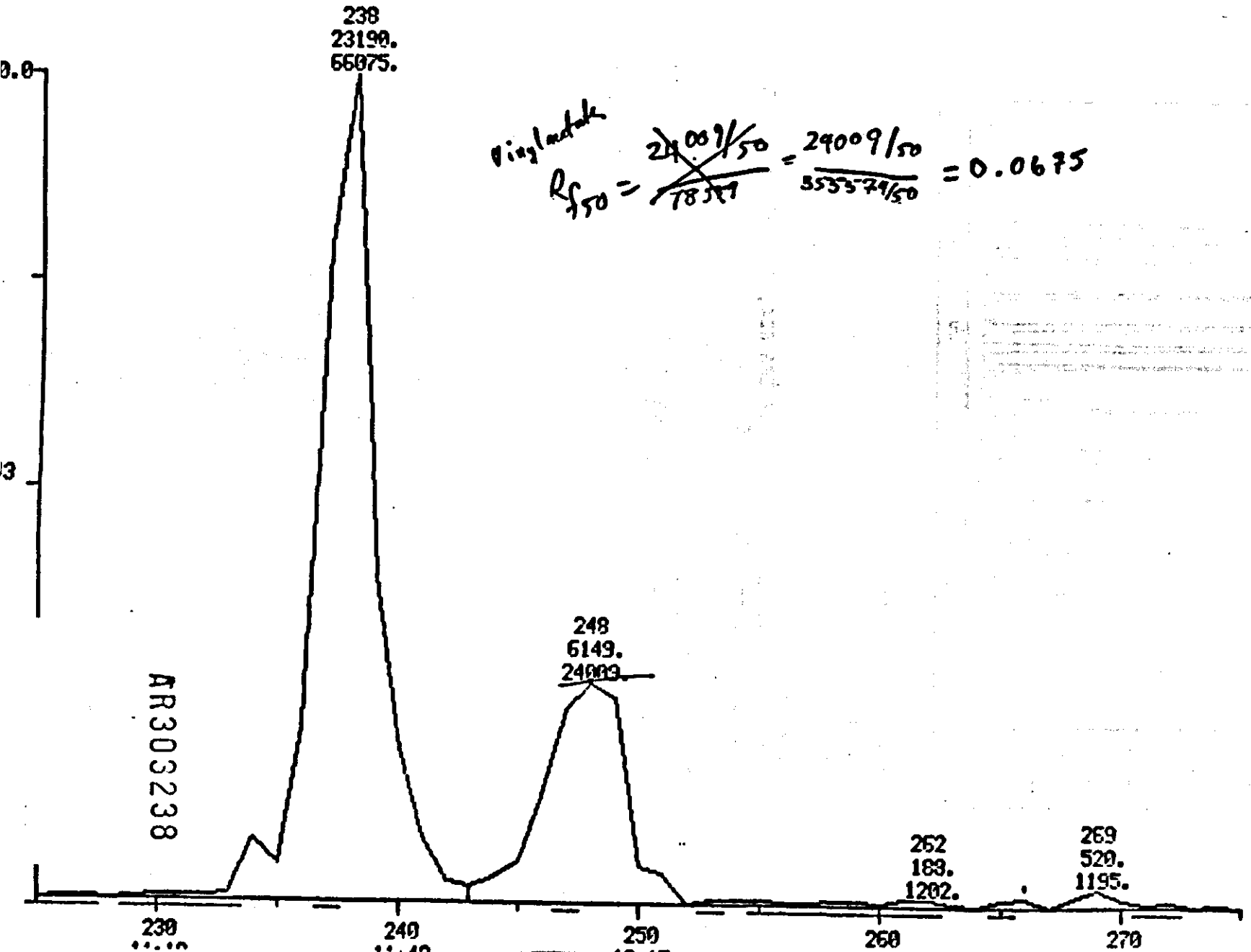
NO	RET(L)	RATIO	RRT(L)	RATIO	AMNT	AMNT(L)	R. FAC	R. FAC(L)	RATIO
13	10:22	1.00	1.426	1.00	53.25	50.00	2.096	1.968	1.06
14	10:17	1.00	1.412	1.00	106.00	100.00	0.921	0.869	1.06
15	16:43	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
16	10:22	1.00	0.621	1.00	75.65	50.00	0.027	0.018	1.51
17	11:36	1.00	0.694	1.00	50.36	50.00	0.336	0.333	1.01
	11:57	1.00	0.715	1.00	50.17	50.00	0.245	0.244	1.00
19	12:09		0.726			50.00		0.085	
20	12:26	1.00	0.744	1.00	49.78	50.00	0.551	0.553	1.00
21	13:31	1.00	0.809	1.00	49.82	50.00	0.595	0.597	1.00
22	14:45	1.00	0.882	1.00	47.68	50.00	0.404	0.424	0.95
23	14:13	1.00	0.850	1.00	49.51	50.00	0.336	0.340	0.99
24	14:36	1.00	0.874	1.00	50.28	50.00	0.344	0.342	1.01
25	14:45	1.00	0.882	1.00	47.80	50.00	0.361	0.377	0.96
26	14:39	1.00	0.876	1.00	49.82	50.00	1.240	1.244	1.00
27	13:46	1.00	0.824	1.00	47.42	50.00	0.434	0.457	0.95
28	15:41	1.00	0.938	1.00	52.73	50.00	0.423	0.401	1.05
29	16:46	1.00	1.003	1.00	50.62	50.00	0.184	0.182	1.01
30	19:40	1.00	1.176	1.00	99.15	100.00	0.495	0.499	0.99
31	20:36	1.00	1.000	1.00	50.00	50.00	1.000	1.000	1.00
32	17:15	1.00	0.838	1.00	48.78	50.00	0.757	0.776	0.98
33	18:26	1.00	0.895	1.00	53.47	50.00	0.497	0.464	1.07
34	18:44	1.00	0.909	1.00	49.09	50.00	0.281	0.286	0.98
35	18:35	1.00	0.902	1.00	50.02	50.00	0.762	0.761	1.00
36	19:49	1.00	0.962	1.00	49.17	50.00	0.738	0.750	0.98
37	20:42	1.00	1.005	1.00	48.88	50.00	0.897	0.918	0.98
38	22:25	1.00	1.088	1.00	48.60	50.00	0.507	0.521	0.97
39	26:03	1.00	1.265	1.00	50.82	50.00	0.918	0.903	1.02
40	26:24	1.00	1.282	1.00	49.95	50.00	0.576	0.576	1.00
41	27:14	1.00	1.322	1.00	50.54	50.00	0.629	0.622	1.01
42	19:40	1.00	0.955	1.00	98.49	100.00	0.550	0.559	0.98
43	24:41	1.00	1.198	1.00	98.36	100.00	0.446	0.454	0.98

FINAL (red)

MASS CHROMATOGRAM
09/25/87 12:09:00
SAMPLE:

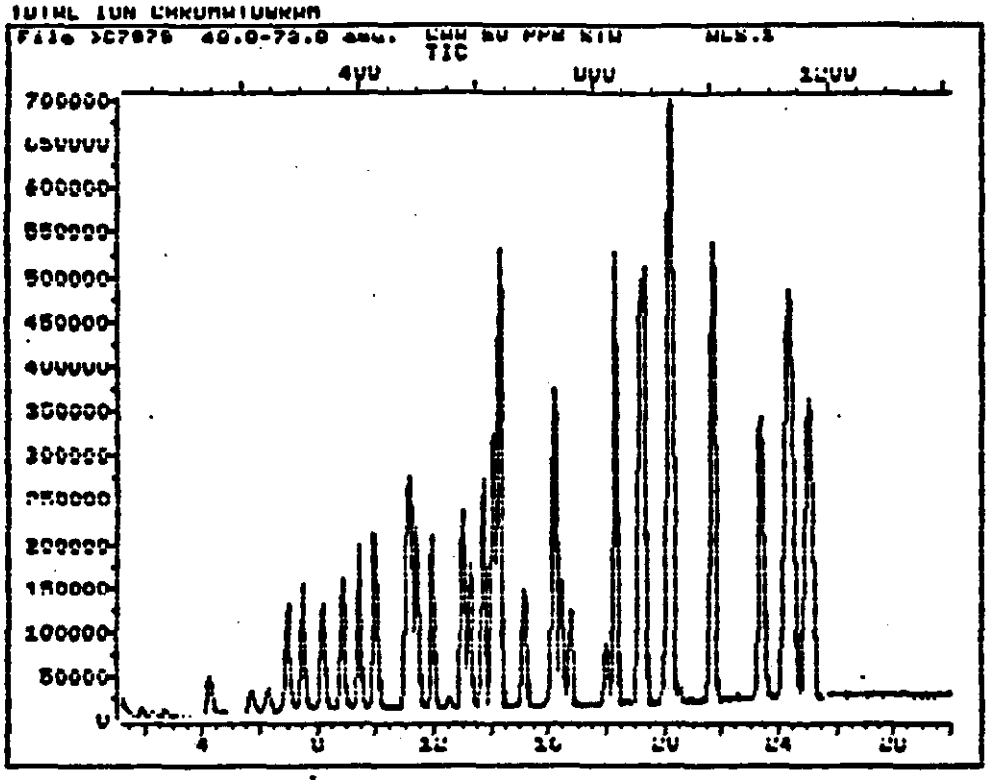
DATA: VOASTD1077

SCANS 225 TO 275



Vinylacetate

$$R_{f50} = \frac{24009/50}{18359} = \frac{24009/50}{3535724/50} = 0.0675$$



Data File: >C7879::UP
Name: CAA 50 PPB STD
Misc: ALS.1

Id File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-05 (INSTR. C)
Last Calibration: 870525 10:45

Operator ID:
Quant Time: 870525 12:39
Injected at: 870525 ~~10:58~~ 11:09

QUANT REPORT

Operator ID: Quant Rev: 4 Quant Time: 870925 12:39
Output File: ^C7979::P1 Injected at: 870925 10:30
Data File: >C7979::UF Dilution Factor: 1.00
Name: CAA 50 PPB STD
Misc: ALS.1

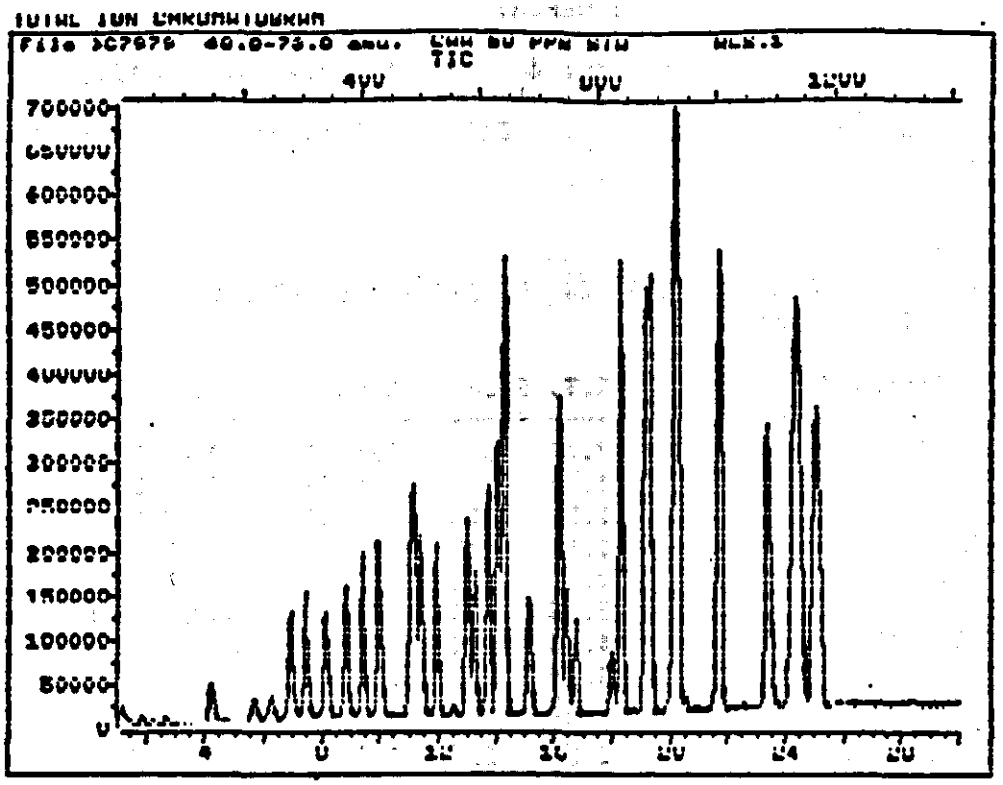
ID File: CV624::F1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)
Last Calibration: 870925 10:45

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	7.44	306	281158	50.00	UG/L	100
2)	CHLOROMETHANE	1.42	9	21539	25.24	UG/L	100
2)	CHLOROMETHANE	1.54	15	1302	1.53	UG/L	100
3)	BROMOMETHANE	1.80	33	29098	42.98	UG/L	96
4)	VINYL CHLORIDE	2.28	52	36628	42.86	UG/L	100
5)	CHLOROETHANE	2.75	75	34146	48.68	UG/L	100
6)	METHYLENE CHLORIDE	4.23	148	51485	26.26	UG/L	100
7)	ACETONE	6.84	276	123632	46.06	UG/L	100
7)	ACETONE	7.06	287	1692	.63	UG/L	100
8)	CARBON DISULFIDE	5.68	219	237701	42.54	UG/L	97
9)	1,1-DICHLOROETHENE	6.94	281	233748	42.52	UG/L	91
10)	1,1-DICHLOROETHANE	8.13	340	580269	47.41	UG/L	97
11)	TRANS-1,2,DICHOROETHENE	8.85	375	263635	46.66	UG/L	74
12)	CHLOROFORM	9.40	402	668848	48.07	UG/L	96
13)	1,2-DICHLOROETHANE	10.01	432	449733	47.03	UG/L	94
14)	D4-1,2-DICHLOROETHANE (SS-1)	9.93	428	419854	106.41	UG/L	92
15)	•1,4-DIFLUOROBENZENE IS-2	16.18	735	1446543	50.00	UG/L	100
16)	2-BUTANONE (MEK)	8.91	427	14988	38.40	UG/L	87
17)	1,1,1-TRICHLOROETHANE	11.06	494	537343	43.79	UG/L	77
18)	CARBON TETRACHLORIDE	11.41	501	599183	44.91	UG/L	96
19)	VINYL ACETATE	11.16	489	264718	61.34	UG/L	100
19)	VINYL ACETATE	11.51	506	31792	7.37	UG/L	100
19)	VINYL ACETATE	11.57	509	25518	5.91	UG/L	100
20)	BROMODICHLOROMETHANE	11.92	526	577335	44.50	UG/L	96
21)	1,2-DICHLORO PROPANE	12.96	578	350946	44.39	UG/L	82
22)	CIS-1,3-DICHLOROPROPENE	13.22	590	433981	44.42	UG/L	98
23)	TRICHLOROETHENE	13.69	613	418844	45.71	UG/L	95
24)	DIBROMOCHLOROMETHANE	14.25	640	586583	46.34	UG/L	89
25)	1,1,2-TRICHLOROETHANE	14.31	643	274832	46.26	UG/L	93
26)	BENZENE	14.06	631	1151894	46.15	UG/L	100
27)	TRANS-1,3-DICHLOROPROPENE	14.29	642	418046	44.17	UG/L	94
28)	2-CHLOROETHYLVINYLETHER	15.15	684	242875	42.35	UG/L	77
29)	BROMOFORM	16.44	748	336471	46.69	UG/L	89
30)	•DS-CHLOROBENZENE IS-3	20.13	928	1544453	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	16.73	762	434028	46.53	UG/L	89
32)	2-HEXANONE	18.01	825	290352	43.34	UG/L	99
33)	TETRACHLOROETHYLENE	18.30	839	329987	45.96	UG/L	99
34)	1,1,2,2-TETRACHLOROETHANE	18.27	838	556290	47.35	UG/L	98
35)	D-8 TOLUENE (SS-2)	19.13	880	1477362	98.63	UG/L	80
36)	TOLUENE	19.28	887	975265	46.26	UG/L	99
37)	CHLOROBENZENE	20.22	933	1278973	46.82	UG/L	85
38)	ETHYL BENZENE	21.68	1005	698383	46.72	UG/L	99
39)	BROMOFLUOROBENZENE (SS-3)	23.37	1088	880070	98.63	UG/L	88
40)	STYRENE	24.28	1132	1568085	46.68	UG/L	93
41)	M-XYLENE	24.46	1141	856000	47.36	UG/L	97
42)	O-XYLENE	24.46	1141	856000	42.90	UG/L	90

AR303240

	Compound	R.T.	Scan#	Area	Conc	Units	Q
42)	O-XYLENE	25.03	1169	901343	45.17	UG/L	94

* Compound is ISTD



ORIGINAL (Red)

Data File: >C7879::UP
Name: CAA 50 PPB STD
Misc: ALS.1

Id File: CVB24::F1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)
Last Calibration: 870925 10:45

Operator ID:
Quant Time: 870925 12:38
Injected at: 870925 ~~10:38~~ 11:09

QUANT REPORT

Operator ID: Quant Rev: 4 Quant Time: 870925 12:39
Output File: *C7879::P1 Injected at: 870925 10:30
Data File: >C7879::UP Dilution Factor: 1.00
Name: CAA 50 PPB STD
Misc: ALS.1

ID File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-05 (INSTR. C)
Last Calibration: 870925 10:45

ORIGINAL (Red)

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE IS-1	7.44	306	281158	50.00	UG/L	100
2)	CHLOROMETHANE	1.42	9	21539	25.24	UG/L	100
2)	CHLOROMETHANE	1.54	15	1302	1.53	UG/L	100
3)	BROMOMETHANE	1.90	33	29098	42.98	UG/L	96
4)	VINYL CHLORIDE	2.28	52	36628	42.96	UG/L	100
5)	CHLOROETHANE	2.75	75	34146	48.88	UG/L	100
6)	METHYLENE CHLORIDE	4.23	148	51485	26.26	UG/L	100
7)	ACETONE	6.84	276	123632	46.09	UG/L	100
7)	ACETONE	7.06	287	1692	.63	UG/L	100
8)	CARBON DISULFIDE	5.68	219	237701	42.54	UG/L	97
9)	1,1-DICHLOROETHENE	6.94	281	233740	42.93	UG/L	91
10)	1,1-DICHLOROETHANE	8.13	340	560269	47.41	UG/L	97
11)	TRANS-1,2,DICHOROETHENE	8.85	375	263635	46.66	UG/L	74
12)	CHLOROFORM	9.40	402	668848	48.07	UG/L	96
13)	1,2-DICHLOROETHANE	10.01	432	449733	47.03	UG/L	94
14)	D4-1,2-DICHLOROETHANE (SS-1)	9.93	428	419954	106.41	UG/L	92
15)	*1,4-DIFLUOROBENZENE IS-2	16.18	735	1446543	50.00	UG/L	100
16)	2-BUTANONE (MEK)	9.91	427	14988	38.40	UG/L	87
17)	1,1,1-TRICHLOROETHANE	11.06	484	537343	43.79	UG/L	77
18)	CARBON TETRACHLORIDE	11.41	501	559163	44.91	UG/L	98
19)	VINYL ACETATE	11.16	489	264718	61.34	UG/L	100
19)	VINYL ACETATE	11.51	506	31792	7.37	UG/L	100
19)	VINYL ACETATE	11.57	509	25518	5.91	UG/L	100
20)	BROMODICHLOROMETHANE	11.92	526	577335	44.50	UG/L	96
21)	1,2-DICHLORO PROPANE	12.96	578	350946	44.39	UG/L	82
22)	CIS-1,3-DICHLOROPROPENE	13.22	590	433981	44.42	UG/L	98
23)	TRICHLOROETHENE	13.69	613	418844	45.71	UG/L	95
24)	DIBROMOCHLOROMETHANE	14.25	640	566503	46.34	UG/L	89
25)	1,1,2-TRICHLOROETHANE	14.31	643	274632	46.26	UG/L	93
26)	BENZENE	14.06	631	1151894	46.15	UG/L	100
27)	TRANS-1,3-DICHLOROPROPENE	14.29	642	418046	44.17	UG/L	94
28)	2-CHLOROETHYLVINYLETHER	15.15	684	242879	42.35	UG/L	77
29)	BROMOFORM	15.44	748	336471	46.69	UG/L	89
30)	*DS-CHLOROBENZENE IS-3	20.13	928	1544453	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	16.73	762	434028	46.93	UG/L	89
32)	2-HEXANONE	18.01	825	290352	43.34	UG/L	99
33)	TETRACHLOROETHYLENE	18.30	839	329987	45.96	UG/L	99
34)	1,1,2,2-TETRACHLOROETHANE	18.27	838	558290	47.35	UG/L	98
35)	D-8 TOLUENE (SS-2)	19.13	880	1477362	98.63	UG/L	90
36)	TOLUENE	19.28	887	575265	46.28	UG/L	99
37)	CHLOROBENZENE	20.22	933	1278973	46.82	UG/L	85
38)	ETHYL BENZENE	21.68	1005	699383	46.72	UG/L	95
39)	BROMOFLUOROBENZENE (SS-3)	23.37	1088	880070	98.83	UG/L	95
40)	STYRENE	24.28	1132	1568085	46.68	UG/L	93
41)	M-XYLENE	24.46	1141	856000	47.36	UG/L	97
42)	O-XYLENE	24.46	1141	856000	42.90	UG/L	98

AR303243

AR303243

	Compound	R.T.	Scan#	Area	Conc	Units	Q
42)	8-XYLENE	25.03	1169	801343	45.17	UG/L	94

* Compound is ISTD

ORIGINAL (Red)

AR303244

ORIGINAL (Red)

@CAL,^C7979

Quant Output File: ^C7979::P1
From ID File: CV624::P1
Quant Time: 870925 12:39

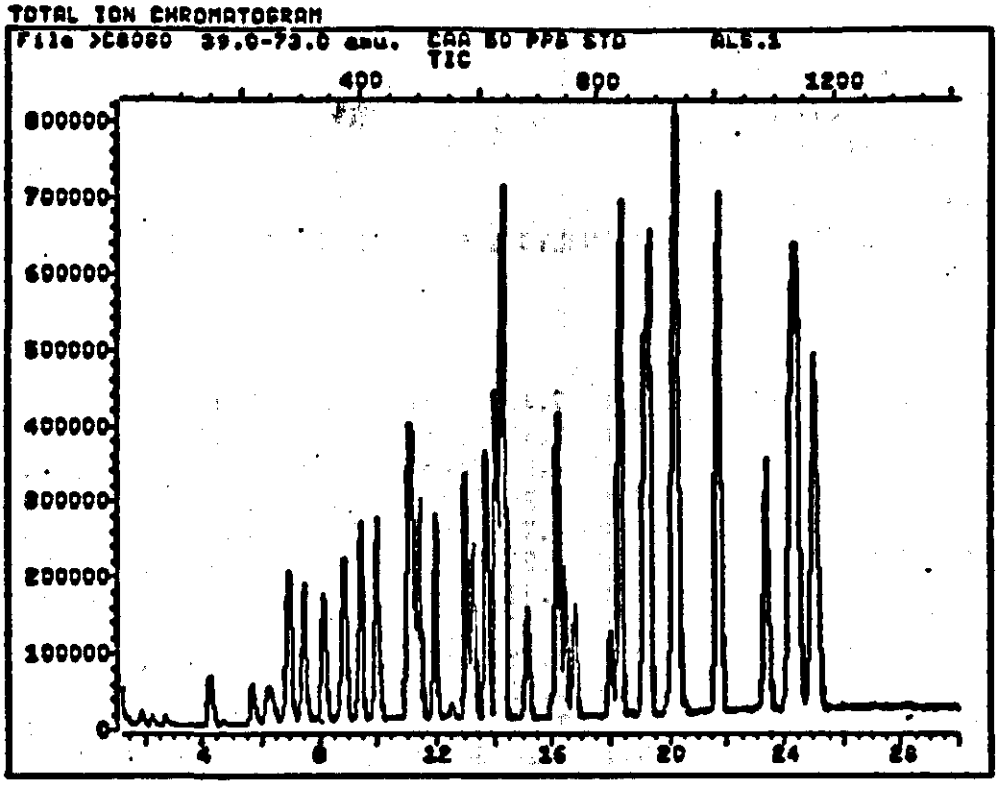
Quant ID File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)

Recalibrating.....

1)	BROMOCHLOROMETHANE IS-1	RT: 7.44	Scan: 306	(ISTD)	0.666	
2)	CHLOROMETHANE	RT: 1.42	Scan: 9	(New Rf = .076608)		
3)	BROMOMETHANE	RT: 1.90	Scan: 33	(New Rf = .103493)		
4)	VINYL CHLORIDE	RT: 2.28	Scan: 52	(New Rf = .130276)		
5)	CHLOROETHANE	RT: 2.75	Scan: 75	(New Rf = .121448)		
6)	METHYLENE CHLORIDE	RT: 4.23	Scan: 148	(New Rf = .183047)		
7)	ACETONE	RT: 6.84	Scan: 276	(New Rf = .439724)		
8)	CARBON DISULFIDE	RT: 5.68	Scan: 219	(New Rf = .845436)		
9)	1,1-DICHLOROETHENE	RT: 6.94	Scan: 281	(New Rf = .831647)	0.9237	
10)	1,1-DICHLOROETHANE	RT: 8.13	Scan: 340	(New Rf =1.992720)		
11	TRANS-1,2,DICHCROETHENE	RT: 8.85	Scan: 375	(New Rf = .937676)		
	CHLOROFORM	RT: 9.40	Scan: 402	(New Rf =2.378904)		
13)	1,2-DICHLOROETHANE	RT: 10.01	Scan: 432	(New Rf =1.599574)		
14)	D4-1,2-DICHLOROETHANE (SS-1)	RT: 9.93	Scan: 428	(New Rf = .746829)		
15)	1,4-DIFLUOROBENZENE IS-2	RT: 16.18	Scan: 735	(ISTD)		
16)	2-BUTANONE (MEK)	RT: 9.91	Scan: 427	(New Rf = .010361)		
17)	1,1,1-TRICHLOROETHANE	RT: 11.06	Scan: 484	(New Rf = .371467)		
18)	CARBON TETRACHLORIDE	RT: 11.41	Scan: 501	(New Rf = .414203)		
19)	VINYL ACETATE	RT: 11.16	Scan: 489	(New Rf = .183000)		
20)	BROMODICHLOROMETHANE	RT: 11.92	Scan: 526	(New Rf = .399114)		
21)	1,2-DICHLORO PROPANE	RT: 12.98	Scan: 578	(New Rf = .242610)		
22)	CIS-1,3-DICHLOROPROPENE	RT: 13.22	Scan: 590	(New Rf = .300013)		
23)	TRICHLOROETHENE	RT: 13.69	Scan: 613	(New Rf = .289548)		
24)	DIBROMOCHLOROMETHANE	RT: 14.25	Scan: 640	(New Rf = .391625)		
25)	1,1,2-TRICHLOROETHANE	RT: 14.31	Scan: 643	(New Rf = .189854)		
26)	BENZENE	RT: 14.06	Scan: 631	(New Rf = .796308)		
27)	TRANS-1,3-DICHLOROPROPENE	RT: 14.29	Scan: 642	(New Rf = .288997)		
28)	2-CHLOROETHYLVINYLETHER	RT: 15.15	Scan: 684	(New Rf = .167903)		
29)	BROMOFORM	RT: 16.44	Scan: 748	(New Rf = .232604)		
30)	D5-CHLOROBENZENE IS-3	RT: 20.13	Scan: 929	(ISTD)		
31)	4-METHYL-2-PENTANONE	RT: 16.73	Scan: 762	(New Rf = .281024)		
32)	2-HEXANONE	RT: 18.01	Scan: 825	(New Rf = .187997)		
33)	TETRACHLOROETHYLENE	RT: 18.30	Scan: 839	(New Rf = .213659)		
34)	1,1,2,2-TETRACHLOROETHANE	RT: 18.27	Scan: 838	(New Rf = .360186)		
35)	D-8 TOLUENE (SS-2)	RT: 19.13	Scan: 880	(New Rf = .478280)		
	TOLUENE	RT: 19.28	Scan: 887	(New Rf = .831483)		
	CHLOROBENZENE	RT: 20.22	Scan: 933	(New Rf = .828107)		
	ETHYL BENZENE	RT: 21.68	Scan: 1005	(New Rf = .445713)		
39)	BROMOFLUOROBENZENE (SS-3)	RT: 23.37	Scan: 1088	(New Rf = .284913)		
40)	STYRENE	RT: 24.28	Scan: 1132	(New Rf =1.015301)		
41)	M-XYLENE	RT: 24.46	Scan: 1141	(New Rf = .554242)		
42)	O-XYLENE	RT: 25.03	Scan: 1169	(New Rf = .593600)		

AR303245

TOTAL ION CHROMATOGRAM



ORIGINAL (Rej)

Data File: >C8080::UP
Name: CAA 50 PPB STD
Misc: ALS.1

Id File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)
Last Calibration: 871001 16:18

Operator ID:
Quant Time: 871001 16:21
Injected at: 871001 12:24

Quant Output File: ^CB080::P3
From ID File: CV624::P1
Quant Time: 871001 14:23

Quant ID File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)

ORIGINAL (Red)

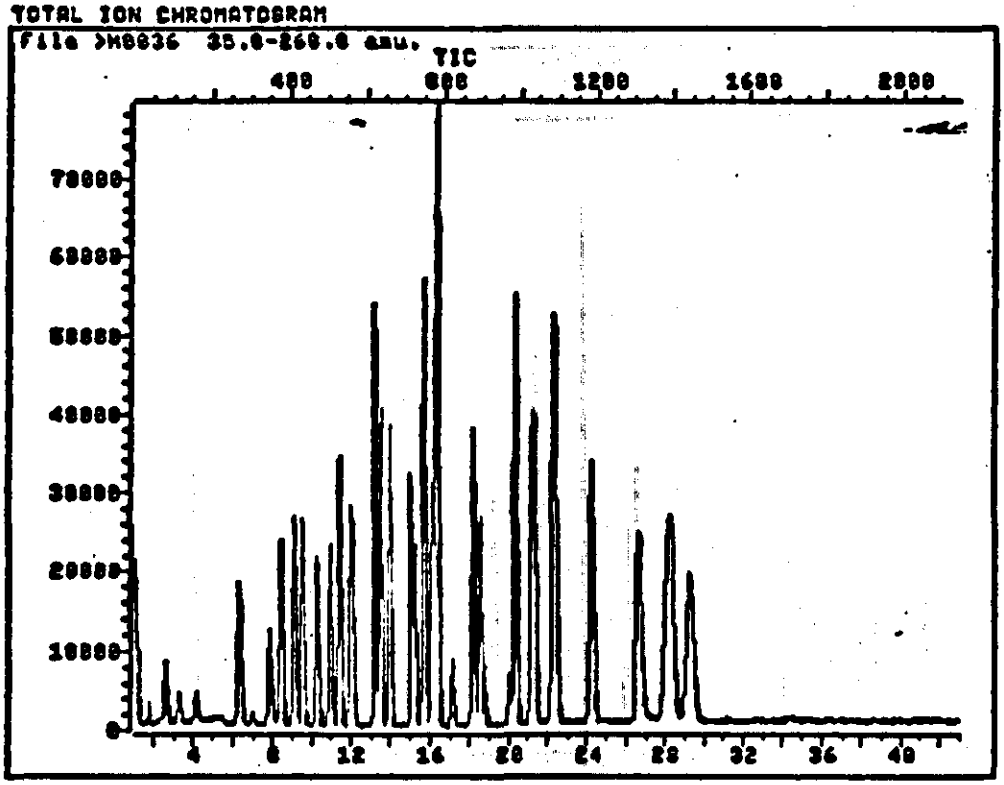
Recalibrating.....

1)	BROMOCHLOROMETHANE IS-1	RT:	7.48	Scan:	304 (ISTD)
2)	CHLOROMETHANE	RT:	1.40	Scan:	8 (New Rf = .144742)
3)	BROMOMETHANE	RT:	1.88	Scan:	32 (New Rf = .158710)
4)	VINYL CHLORIDE	RT:	2.26	Scan:	51 (New Rf = .231926)
5)	CHLOROETHANE	RT:	2.73	Scan:	74 (New Rf = .171086)
6)	METHYLENE CHLORIDE	RT:	4.23	Scan:	148 (New Rf = .379106)
7)	ACETONE	RT:	6.81	Scan:	275 (New Rf = .541159)
8)	CARBON DISULFIDE	RT:	5.63	Scan:	217 (New Rf =1.223705)
9)	1,1-DICHLOROETHENE	RT:	6.90	Scan:	279 (New Rf =1.168226)
10)	1,1-DICHLOROETHANE	RT:	8.11	Scan:	339 (New Rf =2.219852)
11)	TRANS-1,2,DICHOROETHENE	RT:	8.81	Scan:	373 (New Rf =1.054827)
12)	CHLOROFORM	RT:	9.38	Scan:	401 (New Rf =2.588117)
13)	1,2-DICHLOROETHANE	RT:	9.97	Scan:	430 (New Rf =1.747370)
14)	D4-1,2-DICHLOROETHANE (SS-1)	RT:	9.88	Scan:	426 (New Rf = .660144)
15)	1,4-DIFLUOROBENZENE IS-2	RT:	16.16	Scan:	734 (ISTD)
16)	2-BUTANONE (MEK)	RT:	9.91	Scan:	427 (New Rf = .819094)
17)	1,1,1-TRICHLOROETHANE	RT:	11.05	Scan:	483 (New Rf = .469442)
18)	CARBON TETRACHLORIDE	RT:	11.37	Scan:	499 (New Rf = .524320)
19)	VINYL ACETATE	RT:	11.15	Scan:	488 (New Rf = .228793)
20)	BROMODICHLOROMETHANE	RT:	11.90	Scan:	525 (New Rf = .505573)
21)	1,2-DICHLORO PROPANE	RT:	12.96	Scan:	577 (New Rf = .303707)
22)	CIS-1,3-DICHLOROPROPENE	RT:	13.20	Scan:	589 (New Rf = .372545)
23)	TRICHLOROETHENE	RT:	13.68	Scan:	612 (New Rf = .351653)
24)	DIBROMOCHLOROMETHANE	RT:	14.23	Scan:	639 (New Rf = .468306)
25)	1,1,2-TRICHLOROETHANE	RT:	14.29	Scan:	642 (New Rf = .233914)
26)	BENZENE	RT:	14.05	Scan:	630 (New Rf = .995468)
27)	TRANS-1,3-DICHLOROPROPENE	RT:	14.27	Scan:	641 (New Rf = .356204)
28)	2-CHLOROETHYLVINYLETHER	RT:	15.13	Scan:	683 (New Rf = .147559)
29)	BROMOFORM	RT:	15.41	Scan:	746 (New Rf = .281914)
30)	DS-CHLOROBENZENE IS-3	RT:	20.12	Scan:	928 (ISTD)
31)	4-METHYL-2-PENTANONE	RT:	16.71	Scan:	751 (New Rf = .385082)
32)	2-HEXANONE	RT:	17.99	Scan:	824 (New Rf = .295952)
33)	TETRACHLOROETHYLENE	RT:	18.30	Scan:	838 (New Rf = .289829)
34)	1,1,2,2-TETRACHLOROETHANE	RT:	18.28	Scan:	838 (New Rf = .485826)
35)	D-8 TOLUENE (SS-2)	RT:	19.12	Scan:	879 (New Rf = .488769)
36)	TOLUENE	RT:	19.28	Scan:	887 (New Rf = .824982)
37)	CHLOROBENZENE	RT:	20.28	Scan:	932 (New Rf =1.897197)
38)	ETHYL BENZENE	RT:	21.67	Scan:	1004 (New Rf = .573991)
39)	BROMOFLUOROBENZENE (SS-3)	RT:	23.32	Scan:	1085 (New Rf = .280829)
40)	STYRENE	RT:	24.22	Scan:	1129 (New Rf =1.326043)
41)	M-XYLENE	RT:	24.37	Scan:	1136 (New Rf = .711315)
42)	O-XYLENE	RT:	24.96	Scan:	1165 (New Rf = .780289)

AR303247

Done

TOTAL ION CHROMATOGRAM



Data File: >H0036::H1 Quant Output File: ^H0036::QU
Name:
Misc:

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 524, HP 5970 'H'
Last Calibration: 870918 09:16

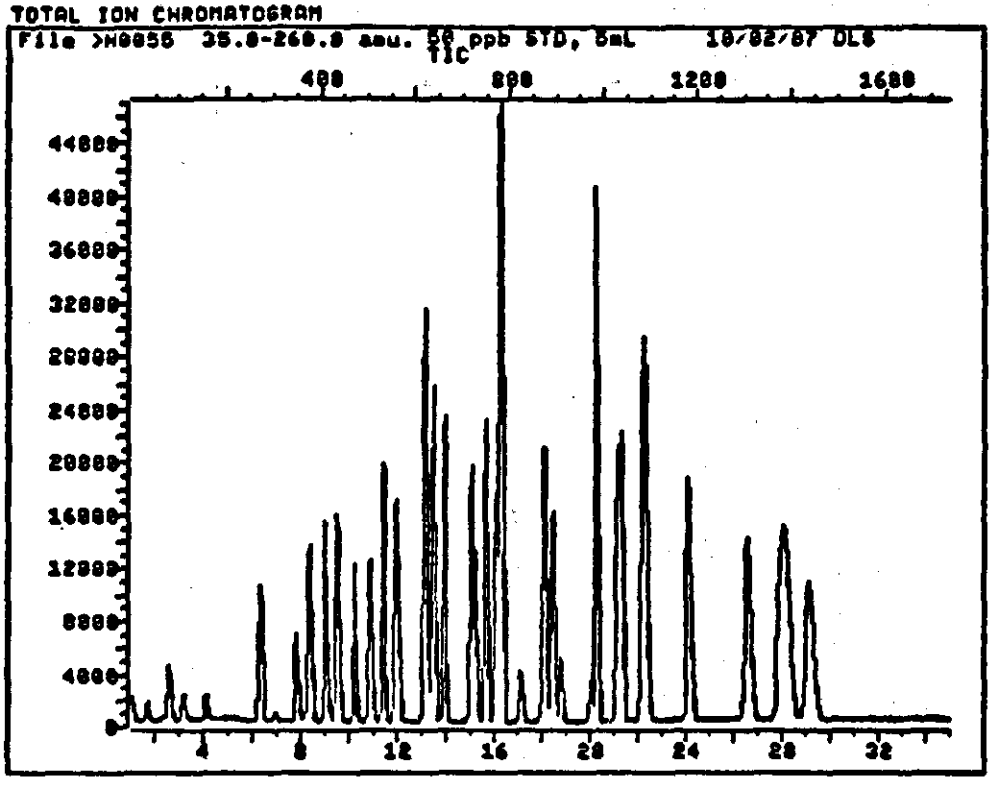
Operator ID: DENNIS
Quant Time: 871001 15:01
Injected at: 871001 14:10

50ppb continuing std

ORIGINAL

AR303248

TOTAL ION CHROMATOGRAM



ORIGINAL (Red)

Data File: >H0055::H1 Quant Output File: ^H0055::QU
Name: 50 ppb STD, 5mL
Misc: 10/02/87 DLS

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 870918 09:16

Operator ID: ELISSA
Quant Time: 871002 13:59
Injected at: 871002 13:16

QUANT REPORT

Operator ID: ELISSA Quant Rev: 6 Quant Time: 871002 13:58
Output File: ^H0055::QU Injected at: 871002 13:16
Data File: >H0055::H1 Dilution Factor: 1.00000
Name: 50 ppb STD, 5mL
Misc: 10/02/87 DLS

ORIGINAL (Red)

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 870918 09:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE IS-1	9.62	432	25259	50.00	UG/L	100
2)	CHLOROMETHANE	1.73	33	7757	30.33	UG/L	100
3)	BROMOMETHANE	2.55	75	11338	31.06	UG/L	89
4)	VINYL CHLORIDE	3.21	109	10881	30.19	UG/L	100
5)	CHLOROETHANE	4.15	157	9520	34.32	UG/L	100
6)	METHYLENE CHLORIDE	6.30	267	24564	36.83	UG/L	100
7)	ACETONE	6.85	300	4787	52.69	UG/L	100
8)	CARBON DISULFIDE	7.84	346	55526	30.41	UG/L	100
9)	1,1-DICHLOROETHENE	9.04	407	24343	32.43	UG/L	98
10)	1,1-DICHLOROETHANE	10.23	468	54182	38.51	UG/L	99
11)	TRANS-1,2,DICHOROETHENE	10.87	501	22513	33.79	UG/L	83
12)	CHLOROFORM	11.40	528	71666	38.29	UG/L	96
13)	1,2-DICHLOROETHANE	12.03	560	45522	43.60	UG/L	93
14)	D4-1,2-DICHLOROETHANE (SS-1)	11.95	556	40467	110.87	UG/L	98
15)	*1,4-DIFLUOROBENZENE IS-2	18.14	873	69778	50.00	UG/L	100
16)	2-BUTANONE (MEK)	11.83	555	1301	68.60	UG/L	95
17)	1,1,1-TRICHLOROETHANE	13.14	617	68725	43.04	UG/L	75
18)	CARBON TETRACHLORIDE	13.47	634	69284	44.35	UG/L	84
19)	VINYL ACETATE	13.20	620	13726M	52.64	UG/L	
20)	BROMODICHLOROMETHANE	13.82	657	71368	43.83	UG/L	98
21)	1,2-DICHLORO PROPANE	15.02	713	31077	42.72	UG/L	91
22)	CIS-1,3-DICHLOROPROPENE	15.23	724	36417	40.69	UG/L	98
23)	TRICHLOROETHENE	15.68	747	34057M	36.87	UG/L	90
24)	DIBROMOCHLOROMETHANE	16.23	775	57115	43.89	UG/L	94
25)	1,1,2-TRICHLOROETHANE	16.29	778	22689	44.02	UG/L	90
26)	BENZENE	16.03	765	63539	40.75	UG/L	100
27)	TRANS-1,3-DICHLOROPROPENE	16.27	777	35276	44.42	UG/L	98
28)	2-CHLOROETHYLVINYLETHER	17.11	820	7015	22.07	UG/L	86
29)	BROMOFORM	18.44	888	37037	43.80	UG/L	84
30)	*D5-CHLOROBENZENE IS-3	22.18	1080	58399	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	18.75	904	19491	53.26	UG/L	90
32)	2-HEXANONE	20.02	969	14044	50.67	UG/L	94
33)	TETRACHLOROETHYLENE	20.25	981	31975	40.69	UG/L	97
34)	1,1,2,2-TETRACHLOROETHANE	20.29	983	34264	49.47	UG/L	99
35)	D-8 TOLUENE (SS-2)	21.13	1026	66093	109.04	UG/L	80
36)	TOLUENE	21.29	1034	43116	43.26	UG/L	98
37)	CHLOROBENZENE	22.31	1086	55850	40.86	UG/L	89
38)	ETHYL BENZENE	24.14	1180	27863	42.22	UG/L	83
39)	BROMOFLUOROBENZENE (SS-3)	26.63	1307	54803M	101.33	UG/L	86
40)	STYRENE	27.94	1374	57608M	43.98	UG/L	
41)	M-XYLENE	28.23	1389	32310M	42.34		
42)	O-XYLENE	29.19	1438	34203M	43.62		

* Compound is ISTD

AR303250

Quant Output File: ^H0055::QU
From ID File: HVOAID::P1
Quant Time: 871002 13:59

Quant ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'

ORIGINAL

Clearing previous calibration...
Recalibrating.....

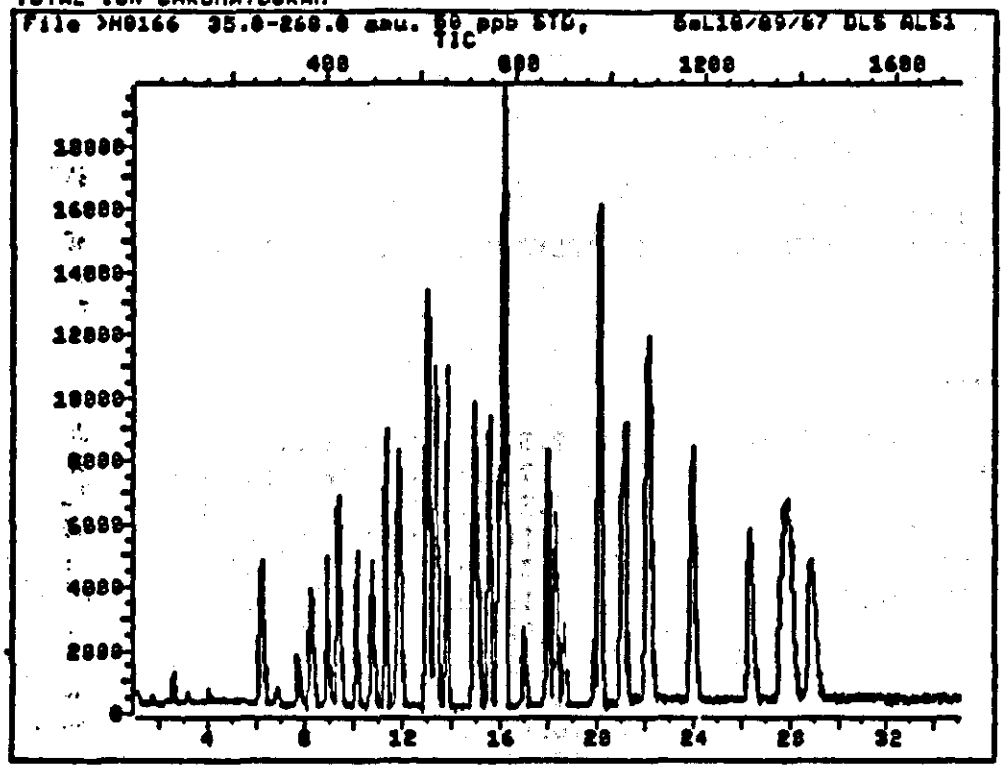
1)	BROMOCHLOROMETHANE IS-1	RT: 9.52	Scan: 432	(ISTD)	.2670	
2)	CHLOROMETHANE	RT: 1.73	Scan: 33	(New Rf =	~~.3078857~~	
3)	BROMOMETHANE	RT: 2.55	Scan: 75	(New Rf =	.448870)	
4)	VINYL CHLORIDE	RT: 3.21	Scan: 109	(New Rf =	.430777)	
5)	CHLOROETHANE	RT: 4.15	Scan: 157	(New Rf =	.376895)	
6)	METHYLENE CHLORIDE	RT: 5.30	Scan: 257	(New Rf =	.972485)	
7)	ACETONE	RT: 5.95	Scan: 300	(New Rf =	.189517)	
8)	CARBON DISULFIDE	RT: 7.84	Scan: 346	(New Rf =	2.198266)	
9)	1,1-DICHLOROETHENE	RT: 9.04	Scan: 407	(New Rf =	~~.9637587~~	1.0708
10)	1,1-DICHLOROETHANE	RT: 10.23	Scan: 468	(New Rf =	2.145057)	
11)	TRANS-1,2,DICHOROETHENE	RT: 10.87	Scan: 501	(New Rf =	.891286)	
12)	CHLOROFORM	RT: 11.40	Scan: 528	(New Rf =	2.837246)	
13)	1,2-DICHLOROETHANE	RT: 12.03	Scan: 560	(New Rf =	1.802209)	
14)	D4-1,2-DICHLOROETHANE (SS-1)	RT: 11.95	Scan: 556	(New Rf =	.801041)	
15)	1,4-DIFLUOROBENZENE IS-2	RT: 18.14	Scan: 873	(ISTD)		
16)	2-BUTANONE (MEK)	RT: 11.93	Scan: 555	(New Rf =	.018645)	
17)	1,1,1-TRICHLOROETHANE	RT: 13.14	Scan: 617	(New Rf =	.984909)	
18)	CARBON TETRACHLORIDE	RT: 13.47	Scan: 634	(New Rf =	.992920)	
19)	VINYL ACETATE	RT: 13.20	Scan: 620	(New Rf =	.196710)	
20)	BROMODICHLOROMETHANE	RT: 13.92	Scan: 657	(New Rf =	1.022787)	
21)	1,2-DICHLORO PROPANE	RT: 15.02	Scan: 713	(New Rf =	.445370)	
22)	CIS-1,3-DICHLOROPROPENE	RT: 15.23	Scan: 724	(New Rf =	.521898)	
23)	TRICHLOROETHENE	RT: 15.58	Scan: 747	(New Rf =	.488076)	
24)	DIBROMOCHLOROMETHANE	RT: 16.23	Scan: 775	(New Rf =	.818524)	
25)	1,1,2-TRICHLOROETHANE	RT: 16.29	Scan: 778	(New Rf =	.325160)	
26)	BENZENE	RT: 16.03	Scan: 765	(New Rf =	.910588)	
27)	TRANS-1,3-DICHLOROPROPENE	RT: 16.27	Scan: 777	(New Rf =	.519877)	
28)	2-CHLOROETHYLVINYLETHER	RT: 17.11	Scan: 820	(New Rf =	.100533)	
29)	BROMOFORM	RT: 18.44	Scan: 888	(New Rf =	.530783)	
30)	D5-CHLOROBENZENE IS-3	RT: 22.19	Scan: 1080	(ISTD)		
31)	4-METHYL-2-PENTANONE	RT: 18.75	Scan: 904	(New Rf =	.333756)	
32)	2-HEXANONE	RT: 20.02	Scan: 969	(New Rf =	.240484)	
33)	TETRACHLOROETHYLENE	RT: 20.25	Scan: 981	(New Rf =	.547526)	
34)	1,1,2,2-TETRACHLOROETHANE	RT: 20.29	Scan: 983	(New Rf =	.586722)	
35)	D-8 TOLUENE (SS-2)	RT: 21.13	Scan: 1026	(New Rf =	.565874)	
36)	TOLUENE	RT: 21.29	Scan: 1034	(New Rf =	.738300)	
37)	CHLOROBENZENE	RT: 22.31	Scan: 1086	(New Rf =	.956352)	
38)	ETHYL BENZENE	RT: 24.14	Scan: 1180	(New Rf =	.477114)	
39)	BROMOFLUOROBENZENE (SS-3)	RT: 26.63	Scan: 1307	(New Rf =	.469212)	
40)	STYRENE	RT: 27.94	Scan: 1374	(New Rf =	.986455)	
41)	M-XYLENE	RT: 28.23	Scan: 1389	(New Rf =	.553263)	
42)	O-XYLENE	RT: 29.19	Scan: 1438	(New Rf =	.585678)	

Done

AR303251

:AL,,3 Move cursor: then press carriage return :

TOTAL ION CHROMATOGRAM



ORIGINAL (Red)

Data File: >H0166::H1 Quant Output File: ^H0166::QU
Name: 50 ppb STD, 5mL
Misc: 10/09/87 DLS ALS1

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 871008 17:17

Operator ID: ELISSA
Quant Time: 871009 10:41
Injected at: 871009 09:50

AR303252

:QCAL,^H0155,HVOAID,C

ORIGINAL (Red)

Quant Output File: ^H0155::QU
From ID File: HVOAID::P1
Quant Time: 871009 10:41

Quant ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'

Clearing previous calibration...
Recalibrating.....

1)	BROMOCHLOROMETHANE IS-1	RT:	9.38	Scan:	425 (ISTD)
2)	CHLOROMETHANE	RT:	1.74	Scan:	34 (New Rf = .150757)
3)	BROMOMETHANE	RT:	2.51	Scan:	73 (New Rf = .264801)
4)	VINYL CHLORIDE	RT:	3.11	Scan:	104 (New Rf = .187734)
5)	CHLOROETHANE	RT:	4.01	Scan:	150 (New Rf = .267424)
6)	METHYLENE CHLORIDE	RT:	5.18	Scan:	261 (New Rf =1.097052)
7)	ACETONE	RT:	6.86	Scan:	296 (New Rf = .540595)
8)	CARBON DISULFIDE	RT:	7.70	Scan:	339 (New Rf =1.606545)
9)	1,1-DICHLOROETHENE	RT:	8.91	Scan:	401 (New Rf = .887390)
10)	1,1-DICHLOROETHANE	RT:	10.13	Scan:	463 (New Rf =2.822258)
11)	TRANS-1,2,DICHOROETHENE	RT:	10.75	Scan:	495 (New Rf = .860355)
12)	CHLOROFORM	RT:	11.28	Scan:	522 (New Rf =3.641019)
13)	1,2-DICHLOROETHANE	RT:	11.90	Scan:	554 (New Rf =2.642643)
14)	D4-1,2-DICHLOROETHANE (SS-1)	RT:	11.81	Scan:	549 (New Rf =1.159880)
15)	1,4-DIFLUOROBENZENE IS-2	RT:	18.02	Scan:	867 (ISTD)
16)	2-BUTANONE (MEK)	RT:	11.85	Scan:	551 (New Rf = .012315)
17)	1,1,1-TRICHLOROETHANE	RT:	13.02	Scan:	611 (New Rf =1.278446)
18)	CARBON TETRACHLORIDE	RT:	13.35	Scan:	628 (New Rf =1.299796)
19)	VINYL ACETATE	RT:	13.37	Scan:	629 (New Rf = .053207)
20)	BROMODICHLOROMETHANE	RT:	13.78	Scan:	650 (New Rf =1.432742)
21)	1,2-DICHLORO PROPANE	RT:	14.89	Scan:	707 (New Rf = .672436)
22)	CIS-1,3-DICHLOROPROPENE	RT:	15.11	Scan:	718 (New Rf = .721887)
23)	TRICHLOROETHENE	RT:	15.54	Scan:	740 (New Rf = .501070)
24)	DIBROMOCHLOROMETHANE	RT:	16.11	Scan:	769 (New Rf = .952689)
25)	1,1,2-TRICHLOROETHANE	RT:	16.18	Scan:	773 (New Rf = .433265)
26)	BENZENE	RT:	15.95	Scan:	761 (New Rf =1.183419)
27)	TRANS-1,3-DICHLOROPROPENE	RT:	16.16	Scan:	772 (New Rf = .690932)
28)	2-CHLOROETHYLVINYLETHER	RT:	17.00	Scan:	815 (New Rf = .211592)
29)	BROMOFORM	RT:	18.31	Scan:	882 (New Rf = .556845)
30)	D5-CHLOROBENZENE IS-3	RT:	22.09	Scan:	1075 (ISTD)
31)	4-METHYL-2-PENTANONE	RT:	18.65	Scan:	899 (New Rf = .682921)
32)	2-HEXANONE	RT:	19.90	Scan:	963 (New Rf = .586225)
33)	TETRACHLOROETHYLENE	RT:	20.19	Scan:	978 (New Rf = .536750)
34)	1,1,2,2-TETRACHLOROETHANE	RT:	20.19	Scan:	978 (New Rf = .764845)
35)	D-8 TOLUENE (SS-2)	RT:	21.03	Scan:	1021 (New Rf = .593077)
36)	TOLUENE	RT:	21.18	Scan:	1029 (New Rf = .873821)
37)	CHLOROBENZENE	RT:	22.16	Scan:	1079 (New Rf =1.142493)
38)	ETHYL BENZENE	RT:	24.00	Scan:	1173 (New Rf = .569259)
39)	BROMOFLUOROBENZENE (SS-3)	RT:	26.38	Scan:	1295 (New Rf = .537611)
40)	STYRENE	RT:	27.75	Scan:	1365 (New Rf =1.201993)
41)	M-XYLENE	RT:	28.03	Scan:	1379 (New Rf = .655811)
42)	O-XYLENE	RT:	28.94	Scan:	1426 (New Rf = .575446)

Done

AR303253

QUANT REPORT

Operator ID: ELISSA Quant Rev: 6 Quant Time: 871009 10:41
Output File: ^H0166::QU Injected at: 871009 09:50
Data File: >H0166::H1 Dilution Factor: 1.00000
Name: 50 ppb STD, 5mL
Misc: 10/09/87 DLS ALS1

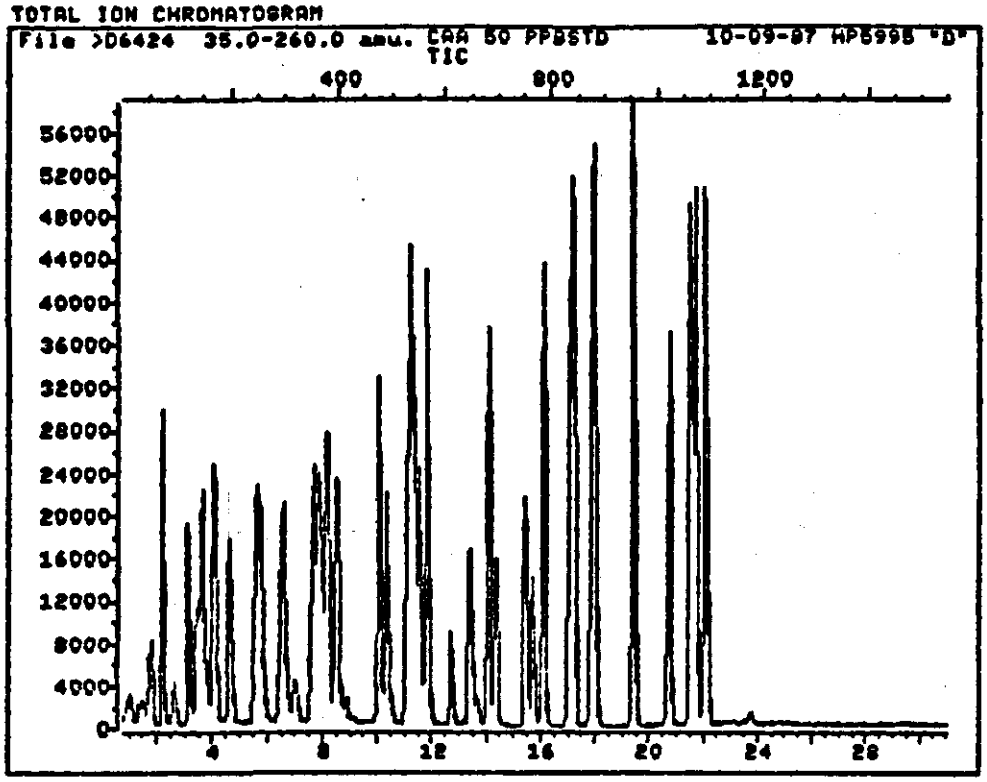
ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 871008 17:17

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	9.38	425	8006	50.00	UG/L	100
2)	CHLOROMETHANE	1.74	34	1388M	50.50	UG/L	100
3)	BROMOMETHANE	2.51	73	2120	33.52	UG/L	89
4)	VINYL CHLORIDE	3.11	104	1503	29.80	UG/L	100
5)	CHLOROETHANE	4.01	150	2141M	38.38	UG/L	100
6)	METHYLENE CHLORIDE	5.18	261	8783	50.39	UG/L	100
7)	ACETONE	6.86	296	4328	128.92	UG/L	100
8)	CARBON DISULFIDE	7.70	339	12852M	39.60	UG/L	100
9)	1,1-DICHLOROETHENE	8.91	401	6394	37.16	UG/L	93
10)	1,1-DICHLOROETHANE	10.13	453	22595	51.89	UG/L	97
11)	TRANS-1,2,DICHOROETHENE	10.75	495	6888	44.29	UG/L	94
12)	CHLOROFORM	11.28	522	29150	49.90	UG/L	88
13)	1,2-DICHLOROETHANE	11.90	554	21157	49.81	UG/L	86
14)	D4-1,2-DICHLOROETHANE (SS-1)	11.81	549	18572	103.57	UG/L	99
15)	•1,4-DIFLUOROBENZENE IS-2	18.02	867	21031	50.00	UG/L	100
16)	2-BUTANONE (MEK)	11.85	551	259	33.10	UG/L	68
17)	1,1,1-TRICHLOROETHANE	13.02	611	26887	46.94	UG/L	79
18)	CARBON TETRACHLORIDE	13.35	628	27336	45.82	UG/L	97
19)	VINYL ACETATE	13.37	629	1119M	56.44	UG/L	
20)	BROMODICHLOROMETHANE	13.78	650	30132	52.35	UG/L	97
21)	1,2-DICHLORO PROPANE	14.89	707	14142	58.41	UG/L	96
22)	CIS-1,3-DICHLOROPROPENE	15.11	718	15182	55.82	UG/L	89
23)	TRICHLOROETHENE	15.54	740	10538	47.69	UG/L	94
24)	DIBROMOCHLOROMETHANE	16.11	769	20036	46.48	UG/L	99
25)	1,1,2-TRICHLOROETHANE	16.18	773	9112	57.01	UG/L	82
26)	BENZENE	15.95	761	23206	54.35	UG/L	100
27)	TRANS-1,3-DICHLOROPROPENE	16.16	772	14531	51.75	UG/L	82
28)	2-CHLOROETHYLVINYLETHER	17.00	815	4450	47.12	UG/L	87
29)	BROMOFORM	18.31	882	11711	45.13	UG/L	88
30)	•D5-CHLOROBENZENE IS-3	22.09	1075	16857	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	18.65	899	11512	66.32	UG/L	77
32)	2-HEXANONE	19.90	963	9882	71.44	UG/L	87
33)	TETRACHLORDETHYLENE	20.19	978	9048M	47.49	UG/L	96
34)	1,1,2,2-TETRACHLOROETHANE	20.19	978	12693	60.04	UG/L	85
35)	D-8 TOLUENE (SS-2)	21.03	1021	19995	103.49	UG/L	78
36)	TOLUENE	21.19	1029	14730	55.50	UG/L	95
37)	CHLOROBENZENE	22.16	1079	19259	54.52	UG/L	63
38)	ETHYL BENZENE	24.00	1173	9596	54.04	UG/L	89
39)	BROMOFLUOROBENZENE (SS-3)	26.38	1295	18125	95.58	UG/L	73
40)	STYRENE	27.75	1365	20262M	51.55	UG/L	91
41)	M-XYLENE	28.03	1379	11055M	52.57	UG/L	91
42)	O-XYLENE	28.94	1426	11386M	50.22	UG/L	98

• Compound is ISTD

AR303254

TOTAL ION CHROMATOGRAM



Data File: >D6424::D2
Name: CAA 50 PPBSTD
Misc: 10-09-87 HP5995 "D" ALS.7

Id File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871009 15:12

Operator ID: MARK
Quant Time: 871010 19:27
Injected at: 871010 19:49

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:^CAL,^D6424

Quant Output File: ^D6424::D2
     From ID File: VOA624::D1
       Quant Time: 871010 19:27

     Quant ID File: VOA624::D1
             Title: VOLATILE ORGANIC ANALYSIS EPA 624  HP 5995 "D"

Recalibrating.....

  1) BROMOCHLOROMETHANE  IS-1      RT:  3.60 Scan:  145 (ISTD)
  2) CHLOROMETHANE                 RT:  1.36 Scan:   30 (New Rf = .124730)
  3) BROMOMETHANE                  RT:  1.47 Scan:   36 (New Rf = .247417)
  4) VINYL CHLORIDE                RT:  1.73 Scan:   49 (New Rf = .719816)
  5) CHLOROETHANE                  RT:  1.79 Scan:   52 (New Rf = .867675)
  6) METHYLENE CHLORIDE            RT:  2.18 Scan:   72 (New Rf =1.274099)
  7) ACETONE                       RT:  2.63 Scan:   95 (New Rf = .721380)
  8) CARBON DISULFIDE              RT:  3.12 Scan:  120 (New Rf =3.139667)
  9) 1,1-DICHLOROETHENE            RT:  4.05 Scan:  168 (New Rf =1.391419)
 10) 1,1-DICHLOROETHANE            RT:  4.62 Scan:  197 (New Rf =2.566519)
 11) TRANS-1,2,DICHOROETHENE       RT:  5.77 Scan:  256 (New Rf =1.165704)
 12) CHLOROFORM                    RT:  5.60 Scan:  247 (New Rf =2.893168)
 13) 1,2-DICHLOROETHANE            RT:  6.58 Scan:  297 (New Rf =2.310095)
 14) D4-1,2-DICHLOROETHANE (SS-1)  RT:  6.50 Scan:  293 (New Rf = .864174)
     ) 1,4-DIFLUOROBENZENE IS-2    RT: 14.06 Scan:  680 (ISTD)
     ) 2-BUTANONE (MEK)            RT:  6.99 Scan:  318 (New Rf = .232275)
     ) 1,1,1-TRICHLOROETHANE       RT:  7.67 Scan:  353 (New Rf = .705703)
 18) CARBON TETRACHLORIDE          RT:  8.18 Scan:  379 (New Rf = .635949)
 20) BROMODICHLOROMETHANE          RT: 11.35 Scan:  541 (New Rf = .335501)
 21) 1,2-DICHLORO PROPANE          RT: 10.07 Scan:  476 (New Rf = .424737)
 22) TRANS-1,3-DICHLOROPROPENE     RT: 11.54 Scan:  551 (New Rf = .552431)
 23) TRICHLOROETHENE               RT: 11.21 Scan:  534 (New Rf = .483616)
 24) DIBROMOCHLOROMETHANE          RT: 11.09 Scan:  528 (New Rf = .554508)
 25) 1,1,2-TRICHLOROETHANE         RT: 11.35 Scan:  541 (New Rf = .295390)
 26) BENZENE                       RT: 11.82 Scan:  565 (New Rf =1.235364)
 27) CIS-1,3-DICHLOROPROPENE       RT: 10.35 Scan:  490 (New Rf = .537094)
 28) 2-CHLOROETHYLVINYLETHER       RT: 12.71 Scan:  611 (New Rf = .113270)
 29) BROMOFORM                     RT: 13.40 Scan:  646 (New Rf = .351415)
 30) D5-CHLOROBENZENE IS-3         RT: 17.88 Scan:  875 (ISTD)
 31) 4-METHYL-2-PENTANONE          RT: 14.34 Scan:  694 (New Rf = .504691)
 32) 2-HEXANONE                    RT: 15.71 Scan:  764 (New Rf = .482035)
 33) TETRACHLOROETHYLENE           RT: 16.12 Scan:  785 (New Rf = .450063)
 34) 1,1,2,2-TETRACHLOROETHANE     RT: 15.43 Scan:  750 (New Rf = .583833)
 35) D-8 TOLUENE (SS-2)            RT: 17.05 Scan:  833 (New Rf = .603071)
 36) TOLUENE                       RT: 17.19 Scan:  840 (New Rf = .944651)
 37) CHLOROBENZENE                 RT: 17.95 Scan:  879 (New Rf =1.102968)
 38) ETHYL BENZENE                 RT: 19.42 Scan:  954 (New Rf = .581930)
 39) BROMOFLUOROBENZENE (SS-3)     RT: 20.75 Scan: 1022 (New Rf = .329787)
 40) STYRENE                       RT: 21.51 Scan: 1061 (New Rf =1.212430)
 41) M-XYLENE                      RT: 22.06 Scan: 1089 (New Rf = 0.6826
 42) O-XYLENE                      RT: 22.06 Scan: 1089 (New Rf = 0.692989)

Done
```

Original (Red)

AR303256

AR303256

QUANT REPORT

Operator ID: MARK Quant Rev: 4 Quant Time: 871010 19:27
Output File: ^D6424::D2 Injected at: 871010 18:49
Data File: >D6424::D2 Dilution Factor: 1.00
Name: CAA 50 PPBSTD
Misc: 10-09-87 HP5995 "D" ALS.7

ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871009 15:12

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	3.60	145	29420	50.00	UG/L	93
2)	CHLOROMETHANE	1.36	30	4220	84.20	UG/L	100
2)	CHLOROMETHANE	1.83	54	276	5.51	UG/L	100
3)	BROMOMETHANE	1.47	36	7279	32.28	UG/L	97
4)	VINYL CHLORIDE	1.73	49	21177	76.29	UG/L	100
5)	CHLOROETHANE	1.79	52	25527	76.60	UG/L	100
6)	METHYLENE CHLORIDE	2.18	72	37484	53.88	UG/L	100
7)	ACETONE	2.16	71	127	.98	UG/L	100
7)	ACETONE	2.20	73	171	1.32	UG/L	100
7)	ACETONE	2.63	95	21223	164.09	UG/L	100
7)	ACETONE	3.21	125	136	1.05	UG/L	100
7)	ACETONE	3.37	133	125	.97	UG/L	100
8)	CARBON DISULFIDE	3.12	120	92369	64.37	UG/L	100
9)	1,1-DICHLOROETHENE	4.05	168	36842	54.44	UG/L	96
10)	1,1-DICHLOROETHANE	4.62	197	75507	49.91	UG/L	98
11)	TRANS-1,2,DICHOROETHENE	5.77	256	34295	57.95	UG/L	81
11)	TRANS-1,2,DICHOROETHENE	6.58	297	68	.11	UG/L	27
12)	CHLOROFORM	4.62	197	10107	6.00	UG/L	98
12)	CHLOROFORM	5.60	247	85117	50.57	UG/L	97
13)	1,2-DICHLOROETHANE	5.75	255	6217	4.43	UG/L	60
13)	1,2-DICHLOROETHANE	6.58	297	67963	48.44	UG/L	95
14)	D4-1,2-DICHLOROETHANE (SS-1)	6.50	293	60848	86.95	UG/L	96
15)	•1,4-DIFLUOROBENZENE IS-2	14.06	680	110718	50.00	UG/L	100
16)	2-BUTANONE (MEK)	6.99	318	25717	84.53	UG/L	96
17)	1,1,1-TRICHLOROETHANE	7.67	353	78134	48.13	UG/L	93
18)	CARBON TETRACHLORIDE	7.67	353	9424	6.62	UG/L	93
18)	CARBON TETRACHLORIDE	8.18	379	70411	49.46	UG/L	97
20)	BROMODICHLOROMETHANE	11.35	541	37146	56.93	UG/L	98
21)	1,2-DICHLORO PROPANE	10.07	476	47026	49.33	UG/L	80
22)	TRANS-1,3-DICHLOROPROPENE	11.54	551	61164	51.96	UG/L	97
22)	TRANS-1,3-DICHLOROPROPENE	12.25	587	87	.07	UG/L	23
23)	TRICHLOROETHENE	11.21	534	53545	60.80	UG/L	92
24)	DIBROMOCHLOROMETHANE	11.09	528	61394	55.99	UG/L	95
25)	1,1,2-TRICHLOROETHANE	11.35	541	32705	52.16	UG/L	87
26)	BENZENE	11.52	550	634	.25	UG/L	100
26)	BENZENE	11.82	565	136777	54.84	UG/L	100
26)	BENZENE	12.38	594	72	.03	UG/L	100
26)	BENZENE	12.44	597	28	.01	UG/L	100
27)	CIS-1,3-DICHLOROPROPENE	10.35	490	59466	51.31	UG/L	95
28)	2-CHLOROETHYLVINYLETHER	12.71	611	12541	40.68	UG/L	83
29)	BROMOFORM	13.40	646	38908	63.69	UG/L	97
30)	•D5-CHLOROBENZENE IS-3	17.88	875	91456	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	14.34	694	46157	45.19	UG/L	95
32)	2-HEXANONE	15.71	764	44085	64.40	UG/L	93
33)	TETRACHLOROETHYLENE	16.12	785	41161	58.66	UG	
34)	1,1,2,2-TETRACHLOROETHANE	15.43	750	53395	57.29	UG	

ORIGINAL (RED)

	Compound	R.T.	Scan#	Area	Conc	Units	
34)	1,1,2,2-TETRACHLOROETHANE	15.80	774	42	.05	UG/L	89
34)	1,1,2,2-TETRACHLOROETHANE	16.12	785	1043	1.12	UG/L	56
35)	D-8 TOLUENE (SS-2)	17.05	833	110309	95.70	UG/L	89
36)	TOLUENE	17.19	840	86394	53.11	UG/L	97
37)	CHLOROBENZENE	17.95	879	100873	54.06	UG/L	84
38)	ETHYL BENZENE	18.42	954	53221	54.64	UG/L	93
39)	BROMOFLUOROBENZENE (SS-3)	20.75	1022	60322	95.50	UG/L	81
40)	STYRENE	21.51	1061	110884	53.60	UG/L	88
41)	M-XYLENE	21.71	1071	62797	55.76	UG/L	91
41)	M-XYLENE	~~22.06~~	~~1089~~	~~63378~~	~~56.27~~	~~UG/L~~	85
42)	O-XYLENE	~~21.71~~	~~1071~~	~~62797~~	~~53.43~~	~~UG/L~~	91
42)	O-XYLENE	22.06	1089	63378	53.92	UG/L	85

• Compound is ISTD

:QCAL,^D6544

Quant Output File: ^D6544::49
From ID File: VOA624::D1
Quant Time: 871020 09:37

Quant ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"

Recalibrating.....

1)	BROMOCHLOROMETHANE IS-1	RT:	3.63	Scan: 146	(ISTD)
2)	CHLOROMETHANE	RT:	1.36	Scan: 30	(New Rf = .069517)
3)	BROMOMETHANE	RT:	1.50	Scan: 37	(New Rf = .211964)
4)	VINYL CHLORIDE	RT:	1.77	Scan: 51	(New Rf = .424813)
5)	CHLOROETHANE	RT:	1.85	Scan: 55	(New Rf = .723920)
6)	METHYLENE CHLORIDE	RT:	2.22	Scan: 74	(New Rf =1.173066)
7)	ACETONE	RT:	2.67	Scan: 97	(New Rf = .583902)
8)	CARBON DISULFIDE	RT:	3.16	Scan: 122	(New Rf =2.842553)
9)	1,1-DICHLOROETHENE	RT:	4.10	Scan: 170	(New Rf =1.341622)
10)	1,1-DICHLOROETHANE	RT:	4.66	Scan: 199	(New Rf =2.592195)
11)	TRANS-1,2,DICHOROETHENE	RT:	5.80	Scan: 257	(New Rf =1.364107)
12)	CHLOROFORM	RT:	5.62	Scan: 248	(New Rf =3.332870)
13)	1,2-DICHLOROETHANE	RT:	6.60	Scan: 298	(New Rf =2.881873)
14)	D4 1,2-DICHLOROETHANE (SS-1)	RT:	6.50	Scan: 293	(New Rf =1.1145
15)	1,4-DIFLUOROBENZENE IS-2	RT:	14.07	Scan: 680	(ISTD)
16)	2-BUTANONE (MEK)	RT:	7.03	Scan: 320	(New Rf = .181033)
17)	1,1,1-TRICHLOROETHANE	RT:	7.67	Scan: 353	(New Rf = .685167)
18)	CARBON TETRACHLORIDE	RT:	8.18	Scan: 379	(New Rf = .600265)
19)	VINYL ACETATE	RT:	9.14	Scan: 423	(New Rf = .012067)
20)	BROMODICHLOROMETHANE	RT:	11.39	Scan: 541	(New Rf = .295439)
21)	1,2-DICHLORO PROPANE	RT:	10.08	Scan: 476	(New Rf = .380548)
22)	TRANS-1,3-DICHLOROPROPENE	RT:	11.54	Scan: 551	(New Rf = .510849)
23)	TRICHLOROETHENE	RT:	11.21	Scan: 534	(New Rf = .431130)
24)	DIBROMOCHLOROMETHANE	RT:	11.09	Scan: 528	(New Rf = .503607)
25)	1,1,2-TRICHLOROETHANE	RT:	11.33	Scan: 540	(New Rf = .334321)
26)	BENZENE	RT:	11.84	Scan: 566	(New Rf =1.079656)
27)	CIS-1,3-DICHLOROPROPENE	RT:	10.35	Scan: 490	(New Rf = .494926)
28)	2 CHLOROETHYLVINYLETHER	RT:	12.72	Scan: 611	(New Rf = .173152)
29)	BROMOFORM	RT:	13.38	Scan: 645	(New Rf = .312877)
30)	D5 CHLOROBENZENE IS-3	RT:	17.88	Scan: 879	(ISTD)
31)	4-METHYL-2-PENTANONE	RT:	14.34	Scan: 694	(New Rf = .401515)
32)	2-HEXANONE	RT:	15.71	Scan: 764	(New Rf = .360303)
33)	TETRACHLOROETHYLENE	RT:	16.12	Scan: 785	(New Rf = .389474)
34)	1,1,2,2-TETRACHLOROETHANE	RT:	15.43	Scan: 750	(New Rf = .481875)
35)	D-8 TOLUENE (SS-2)	RT:	17.06	Scan: 833	(New Rf = .541365)
36)	TOLUENE	RT:	17.21	Scan: 841	(New Rf = .902145)
37)	CHLOROBENZENE	RT:	17.98	Scan: 880	(New Rf = .909305)
38)	ETHYL BENZENE	RT:	19.44	Scan: 955	(New Rf = .473047)
39)	BROMOFLUOROBENZENE (SS-3)	RT:	20.77	Scan: 1023	(New Rf = .343763)
40)	STYRENE	RT:	21.55	Scan: 1063	(New Rf = 25.988633)
41)	M-XYLENE	RT:	21.73	Scan: 1072	(New Rf = .524499)
42)	O-XYLENE	RT:	22.08	Scan: 1090	(New Rf = .550362)

Done

AR303259

:CSCHK,QC0995

QUANT REPORT

Operator ID: MANAGER Quant Rev: 4 Quant Time: 871020 09:37
Output File: ^D6544::49 Injected at: 871020 08:59
Data File: >D6544::D3 Dilution Factor: 1.00
Name: CAA 50 PPB STD
Misc: 10-20-87 HP5995 "D" ALS 7 5MLS

ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871019 11:19

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	3.63	145	23754	50.00	UG/L	84
2)	CHLOROMETHANE	1.36	30	1899	23.51	UG/L	100
2)	CHLOROMETHANE	1.83	54	147	1.82	UG/L	100
3)	BROMOMETHANE	1.50	37	5035	59.39	UG/L	99
4)	VINYL CHLORIDE	1.77	51	10091	37.86	UG/L	100
5)	CHLOROETHANE	1.85	55	17196	52.84	UG/L	100
6)	METHYLENE CHLORIDE	2.22	74	27865	57.42	UG/L	100
7)	ACETONE	2.22	74	144	.48	UG/L	100
7)	ACETONE	2.41	84	168	.56	UG/L	100
7)	ACETONE	2.67	97	13870	45.83	UG/L	100
7)	ACETONE	3.25	127	208	.69	UG/L	100
7)	ACETONE	3.29	128	141	.47	UG/L	100
8)	CARBON DISULFIDE	3.16	122	67522	55.18	UG/L	100
8)	CARBON DISULFIDE	3.61	145	34	.03	UG/L	100
8)	CARBON DISULFIDE	3.82	156	52	.04	UG/L	100
9)	1,1-DICHLOROETHENE	4.10	170	28682	52.74	UG/L	97
10)	1,1-DICHLOROETHANE	4.66	199	61575	59.28	UG/L	99
11)	TRANS-1,2,DICHOROETHENE	5.80	257	32403	58.87	UG/L	81
12)	CHLOROFORM	4.66	199	8419	6.09	UG/L	96
12)	CHLOROFORM	5.62	248	79169	57.29	UG/L	97
13)	1,2-DICHLOROETHANE	5.80	257	6035	5.35	UG/L	55
13)	1,2-DICHLOROETHANE	6.60	298	68456	60.64	UG/L	85
14)	D4-1,2-DICHLOROETHANE (SS-1)	6.50	293	52951	104.14	UG/L	92
15)	•1,4-DIFLUOROBENZENE IS-2	14.07	680	106323	50.00	UG/L	100
16)	2-BUTANONE (MEK)	7.03	320	19248	46.29	UG/L	98
17)	1,1,1-TRICHLOROETHANE	7.67	353	72849	57.60	UG/L	95
18)	CARBON TETRACHLORIDE	7.67	353	8670	7.92	UG/L	95
18)	CARBON TETRACHLORIDE	8.18	378	63822	58.33	UG/L	97
20)	BROMODICHLOROMETHANE	11.35	541	31412	56.42	UG/L	99
20)	BROMODICHLOROMETHANE	11.86	567	143	.26	UG/L	97
21)	1,2-DICHLORO PROPANE	10.08	476	40451	57.13	UG/L	76
22)	TRANS-1,3-DICHLOROPROPENE	11.54	551	54315	56.95	UG/L	96
23)	TRICHLOROETHENE	11.21	534	45839	58.43	UG/L	92
24)	DIBROMOCHLOROMETHANE	11.69	526	53545	56.21	UG/L	95
25)	BENZENE	11.47	547	42	.02	UG/L	100
25)	BENZENE	11.54	551	288	.14	UG/L	100
25)	BENZENE	11.60	554	131	.06	UG/L	100
25)	BENZENE	11.84	566	114367	56.42	UG/L	100
25)	BENZENE	12.39	594	86	.0		100
27)	CIS-1,3-DICHLOROPROPENE	10.35	490	52622	56.8		
28)	2-CHLOROETHYLVINYLETHER	12.72	611	18410	44.86	UG/L	
29)	BROMOFORM	13.38	645	33266	53.60	UG/L	96
30)	•D5-CHLOROBENZENE IS-3	17.88	875	94923	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE						

31)	4-METHYL-2-PENTANONE	14.83	719	118	.15 UG/L	64

	Compound	R.T.	Scan#	Area	Conc	Units	Q
32)	2-HEXANONE	14.83	719	118	.15	UG/L	72
32)	2-HEXANONE	15.71	764	34201	44.59	UG/L	93
33)	TETRACHLOROETHYLENE	16.12	785	36970	54.63	UG/L	92
34)	1,1,2,2-TETRACHLOROETHANE	15.43	750	45741	49.15	UG/L	95
34)	1,1,2,2-TETRACHLOROETHANE	16.14	786	837	.90	UG/L	57
35)	D-8 TOLUENE (SS-2)	17.06	833	102776	93.72	UG/L	92
36)	TOLUENE	17.21	841	76142	54.86	UG/L	87
37)	CHLOROBENZENE	17.98	880	86219	54.71	UG/L	93
38)	ETHYL BENZENE	19.44	955	44903	55.46	UG/L	93
39)	BROMOFLUOROBENZENE (SS-3)	20.77	1023	65262	101.09	UG/L	80
40)	STYRENE	21.55	1063	93844	55.45	UG/L	84
41)	M-XYLENE	20.75	1022	169	.18	UG/L	7
41)	M-XYLENE	21.73	1072	49787	53.49	UG/L	85
41)	M-XYLENE	22.08	1090	52242	56.12	UG/L	82
42)	O-XYLENE	20.75	1022	168	.17	UG/L	7
42)	O-XYLENE	21.73	1072	49787	51.49	UG/L	85
42)	O-XYLENE	22.08	1090	52242	54.03	UG/L	82

* Compound is ISTD

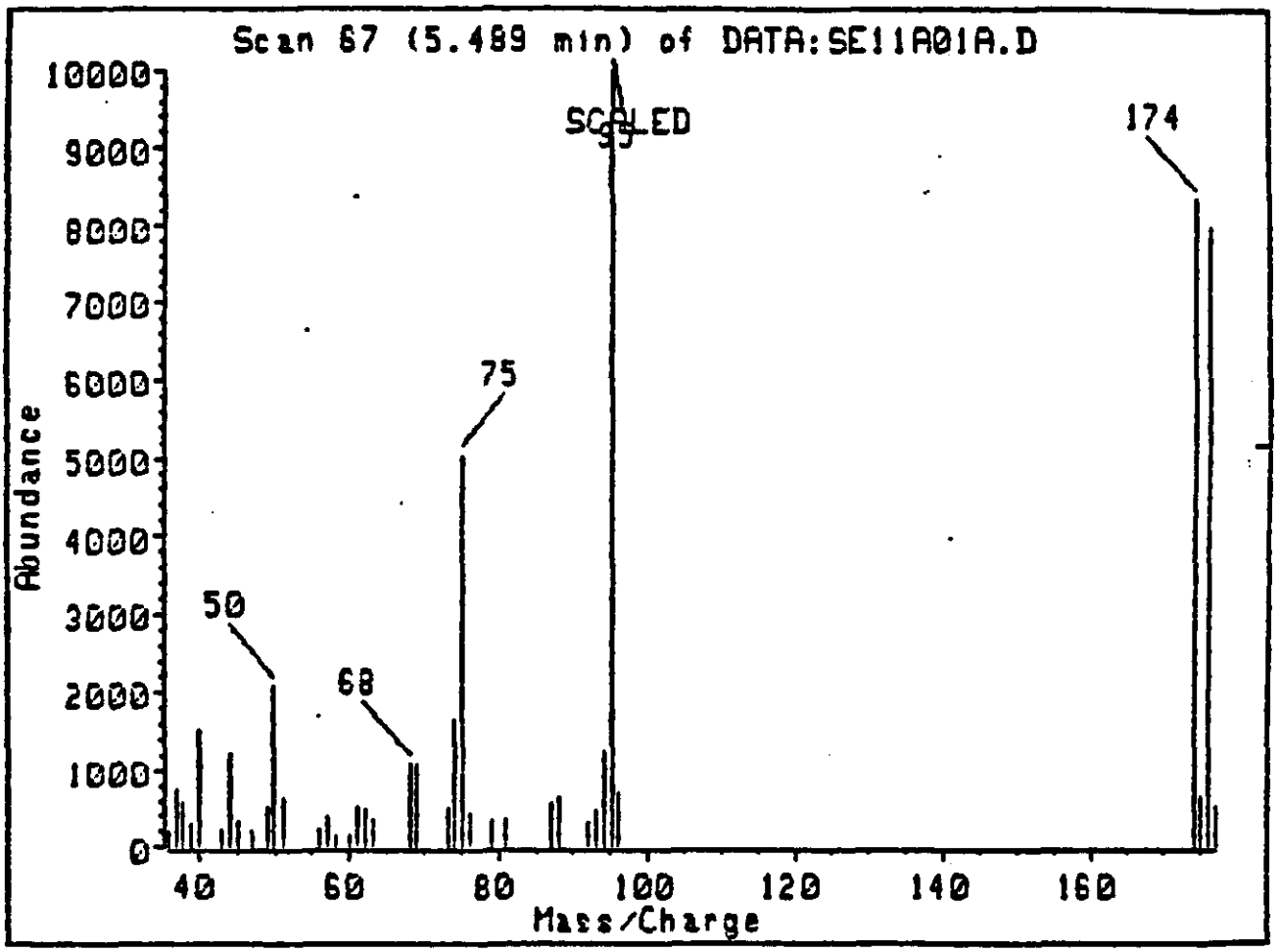
Cambridge Analytical Associates

V RAW QC DATA PACKAGE

ORIGINAL (Red)

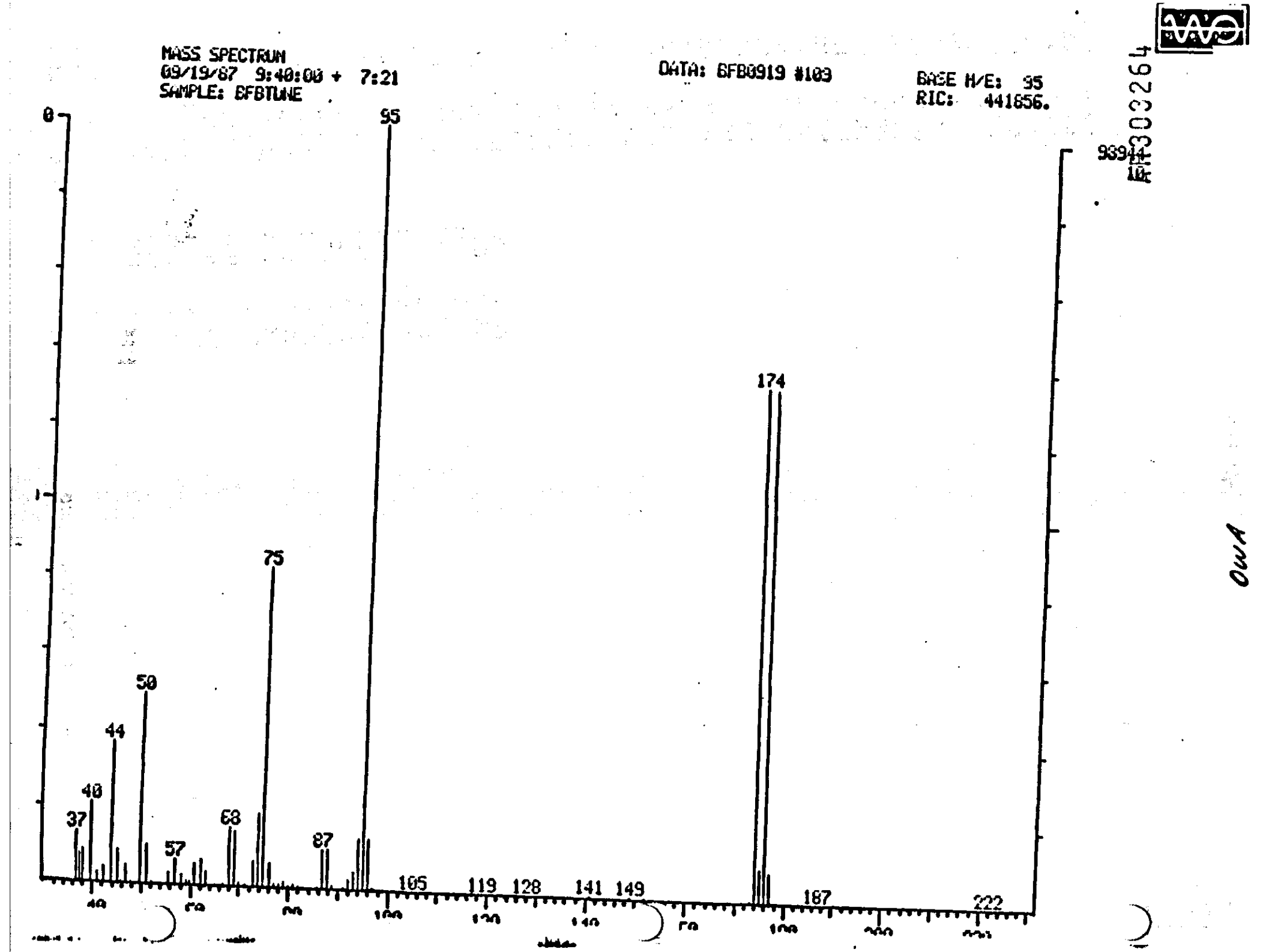
Scan 67 (5.489 min) of DATA:SE11A01A.D

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	214	49.95	2070	69.05	1055	92.05	306
37.05	751	51.05	640	73.05	512	93.05	467
37.95	585	56.05	228	74.05	1647	94.05	1247
39.05	324	57.05	396	75.05	5021	95.05	10000
39.95	1514	58.05	162	76.05	446	96.05	717
43.05	226	60.05	150	78.95	328	174.05	8362
43.95	1217	61.05	501	80.95	363	175.05	660
45.05	328	62.05	486	86.95	558	176.05	7985
47.05	224	63.05	367	87.95	638	177.05	537
48.95	503	68.05	1081				



HP 5993 C 08:45 9/11/87

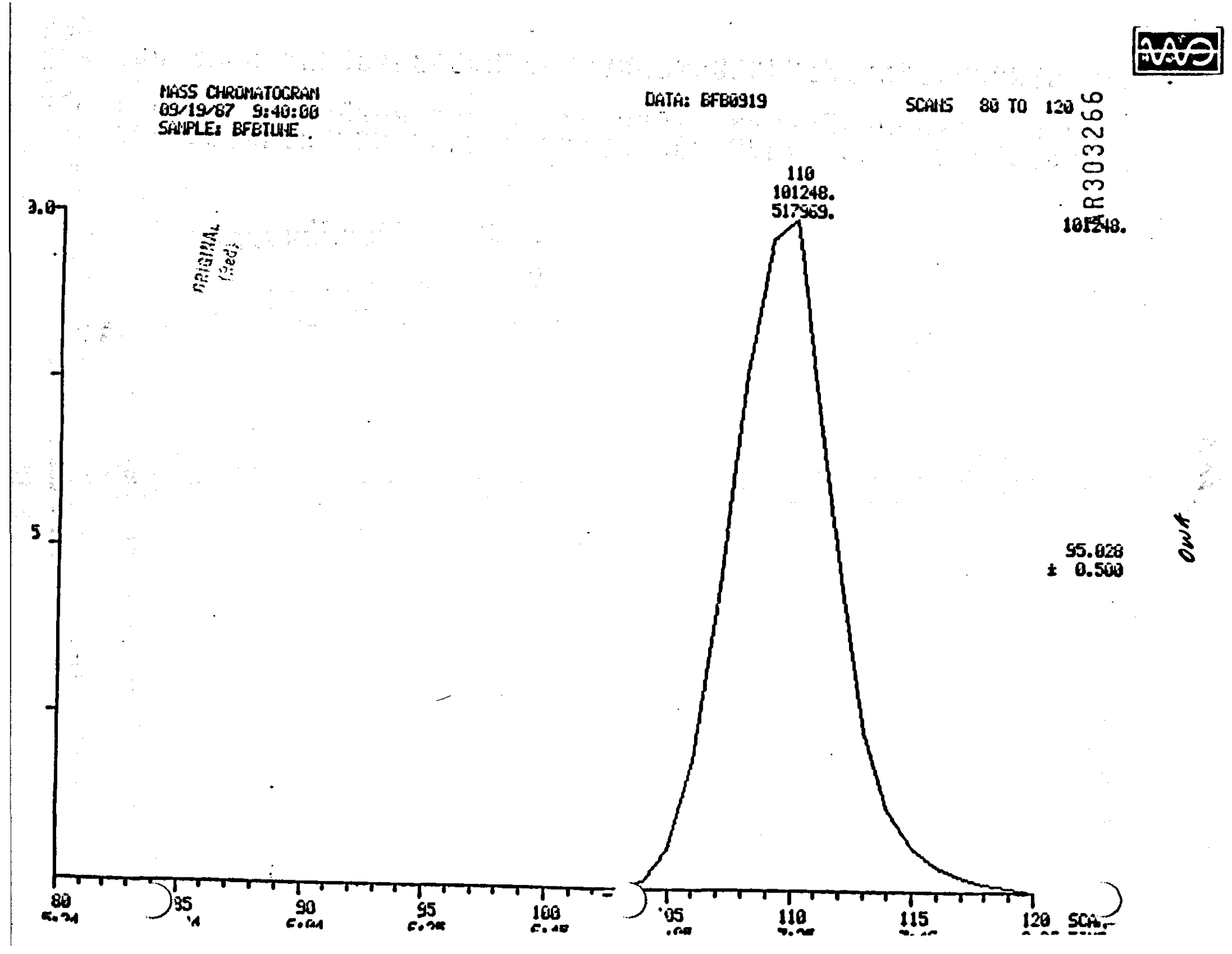
AR303263


MASS SPECTRUM
09/19/87 9:40:00 + 7:21
SAMPLE: BFBTUNE
DATA: BFB0919 #103
BASE M/E: 95
RIC: 441856.
AR03264
0
95
75
174
50
44
40
37
68
57
87
105
119
128
141
149
187
222
939
OWA

37 0.00 MINIMA MIN INTEN: 0. MAX INTEN: 98944.
224 # 0 MAXIMA

MASS	% RA	MASS	% RA
37	6.51	104	0.03
38	3.79	105	0.11
38	4.37	106	0.03
40	10.38	117	0.12
41	1.20	119	0.13
42	2.11	128	0.04
44	18.24	141	0.15
45	4.38	143	0.05
46	0.15	149	0.26
47	2.37	150	0.03
48	0.35	152	0.23
50	24.64	173	0.17
51	5.09	174	67.01
52	0.19	175	4.43
55	0.10	176	66.88
56	1.45	177	3.91
57	3.20	178	0.06
58	1.40	187	0.08
59	0.52	222	0.10
60	0.53	224	0.02
61	2.74		
62	3.20		
63	1.78		
64	0.05		
67	0.14		
68	7.75		
69	7.12		
0	0.56		
71	0.16		
73	3.22		
74	9.51		
75	41.59		
76	3.02		
77	0.49		
78	0.40		
79	0.69		
80	0.36		
81	0.62		
82	0.24		
86	0.23		
87	5.14		
88	5.10		
89	0.61		
91	0.19		
92	1.19		
93	2.23		
94	6.60		
95	100.00		
96	6.69		
97	0.19		
102	0.02		

OWA


MASS CHROMATOGRAM
09/19/87 9:40:00
SAMPLE: BFBTUNE
DATA: BFB0919
SCANS 80 TO 120
110
101248.
517969.
101248.
R303266
95.028
± 0.500
3.0
5
80
85
90
95
100
105
110
115
120
SCA

MASS LIST
09/25/87 9:54:00 + 7:01
SAMPLE: 2 UL BFB, D1, BFBTUNE

DATA: BFB0925 # 104

BASE M/E: 95
RIC: 323584.

36 0.00 MINIMA
77 # 0 MAXIMA

MIN INTEN: 0. MAX INTEN: 70016.

ORIGINAL (Red)

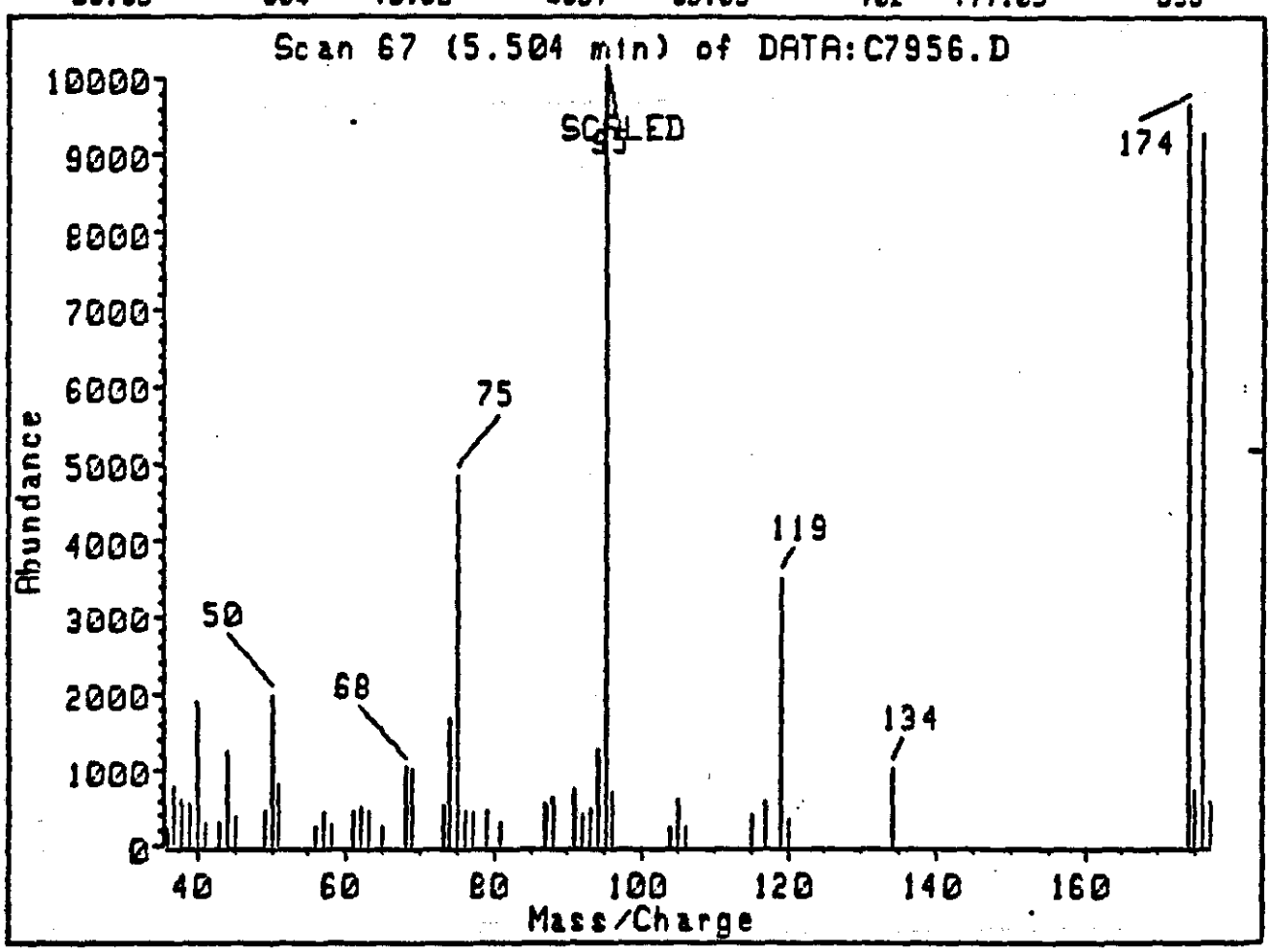
MASS	% RA	MASS	% RA
36	0.71	93	1.77
37	7.72	94	6.80
38	4.86	95	100.00
40	8.39	96	6.56
40	4.43	97	0.39
41	1.95	104	0.07
42	1.49	109	0.08
43	3.22	111	0.03
44	20.57	117	0.18
45	8.00	119	0.17
46	0.24	128	0.04
47	2.20	130	0.03
48	0.19	135	0.03
49	2.95	141	0.06
50	21.14	143	0.04
51	4.59	172	0.15
52	0.10	174	68.83
55	1.15	175	4.39
56	1.30	176	66.64
57	6.11	177	4.04
58	1.12		
59	0.44		
60	0.70		
61	1.86		
2	3.96		
63	1.68		
64	0.03		
67	0.14		
68	8.46		
69	7.23		
70	0.77		
71	1.07		
72	0.45		
73	3.72		
75	49.09		
76	2.71		
77	0.78		
78	0.18		
79	0.81		
80	0.62		
81	0.60		
82	0.20		
83	0.32		
84	0.03		
85	0.47		
86	0.24		
87	5.49		
88	5.40		
89	0.69		
91	0.10		
2	1.10		

AR303267

OW4

Scan 67 (5.504 min) of DATA:C7956.D
BFB D.I.

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.05	231	56.05	252	76.05	462	104.05	241
36.05	784	57.05	448	77.05	434	105.05	603
38.05	514	58.15	282	78.05	469	106.05	255
39.05	553	61.05	465	80.05	307	115.05	422
39.95	1899	62.05	514	86.05	556	117.05	592
41.05	316	63.05	452	88.05	637	118.15	3514
43.05	313	65.05	270	91.05	742	120.15	369
43.95	1249	68.05	1045	92.05	420	134.15	1019
45.05	380	69.05	1014	93.05	483	174.05	8653
48.05	469	73.05	542	94.05	1259	175.05	730
50.05	1978	74.05	1661	95.05	10000	176.05	9294
50.95	804	75.05	4831	96.05	702	177.05	698



08:49 4/24/87

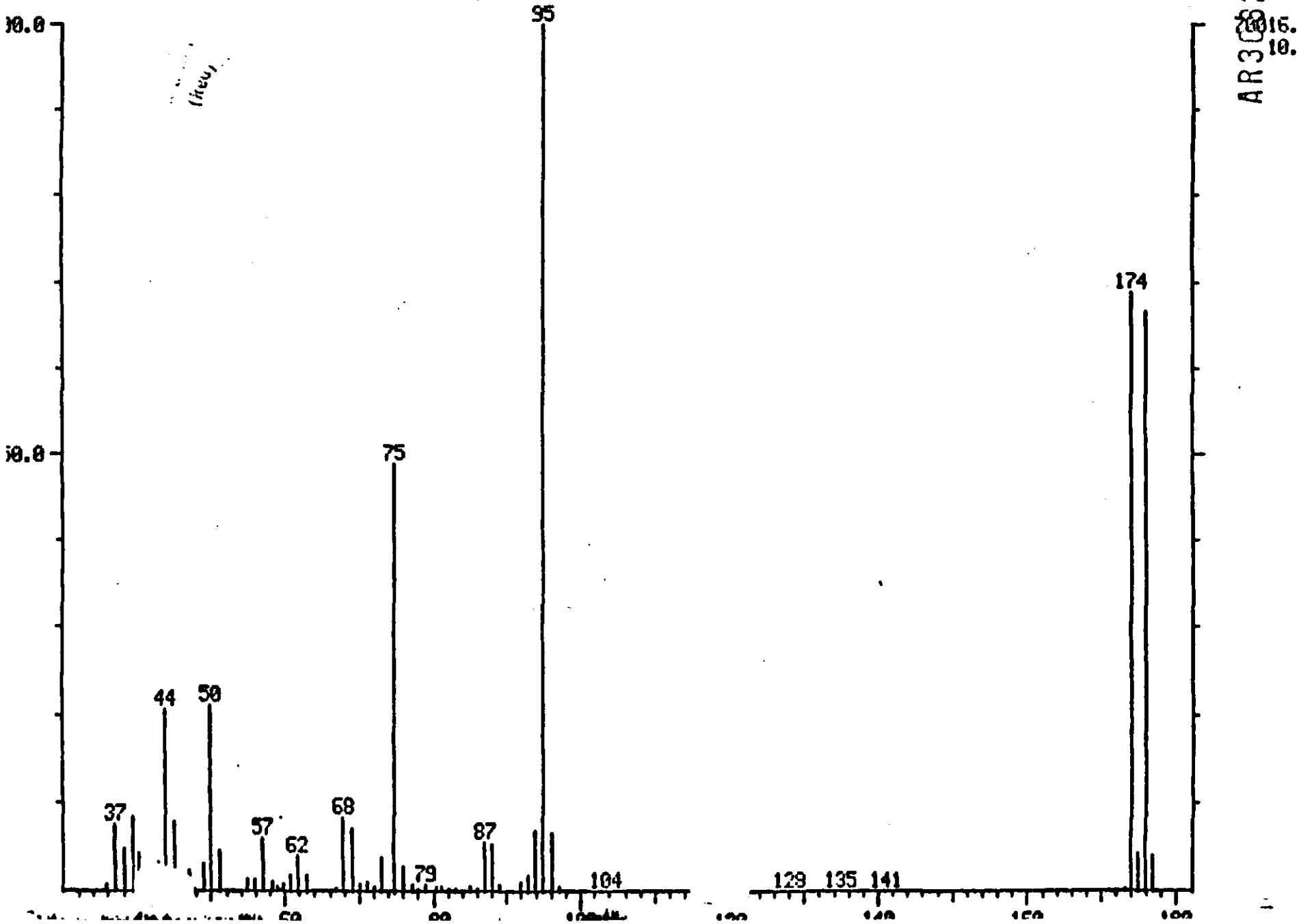
AR303268

HP 5793 'C'

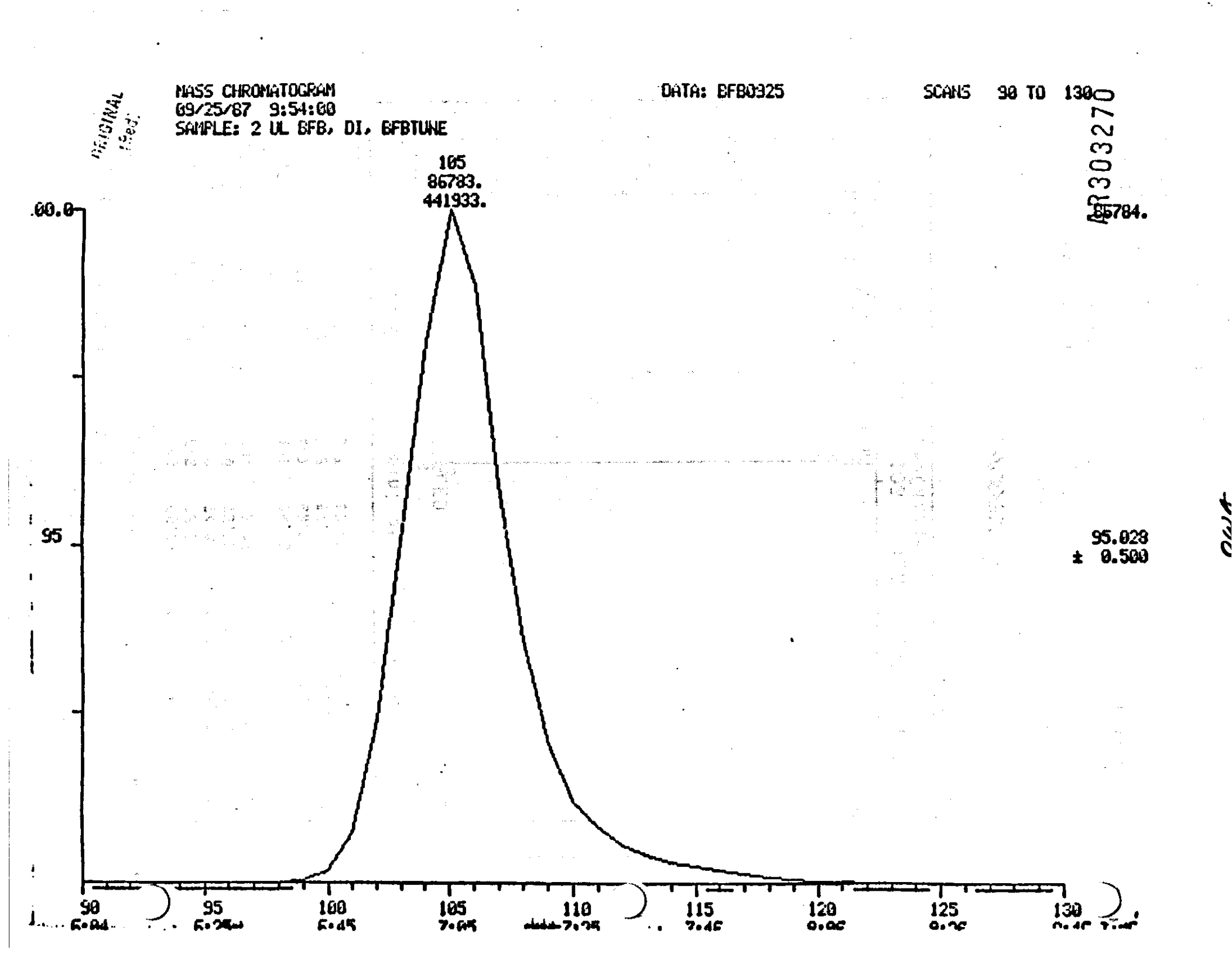
MASS SPECTRUM
03/25/87 9:54:00 + 7:01
SAMPLE: 2 UL BFB, DI, BFBTUNE

DATA: BFB0325 #104

BASE M/E: 95
RIC: 323584.



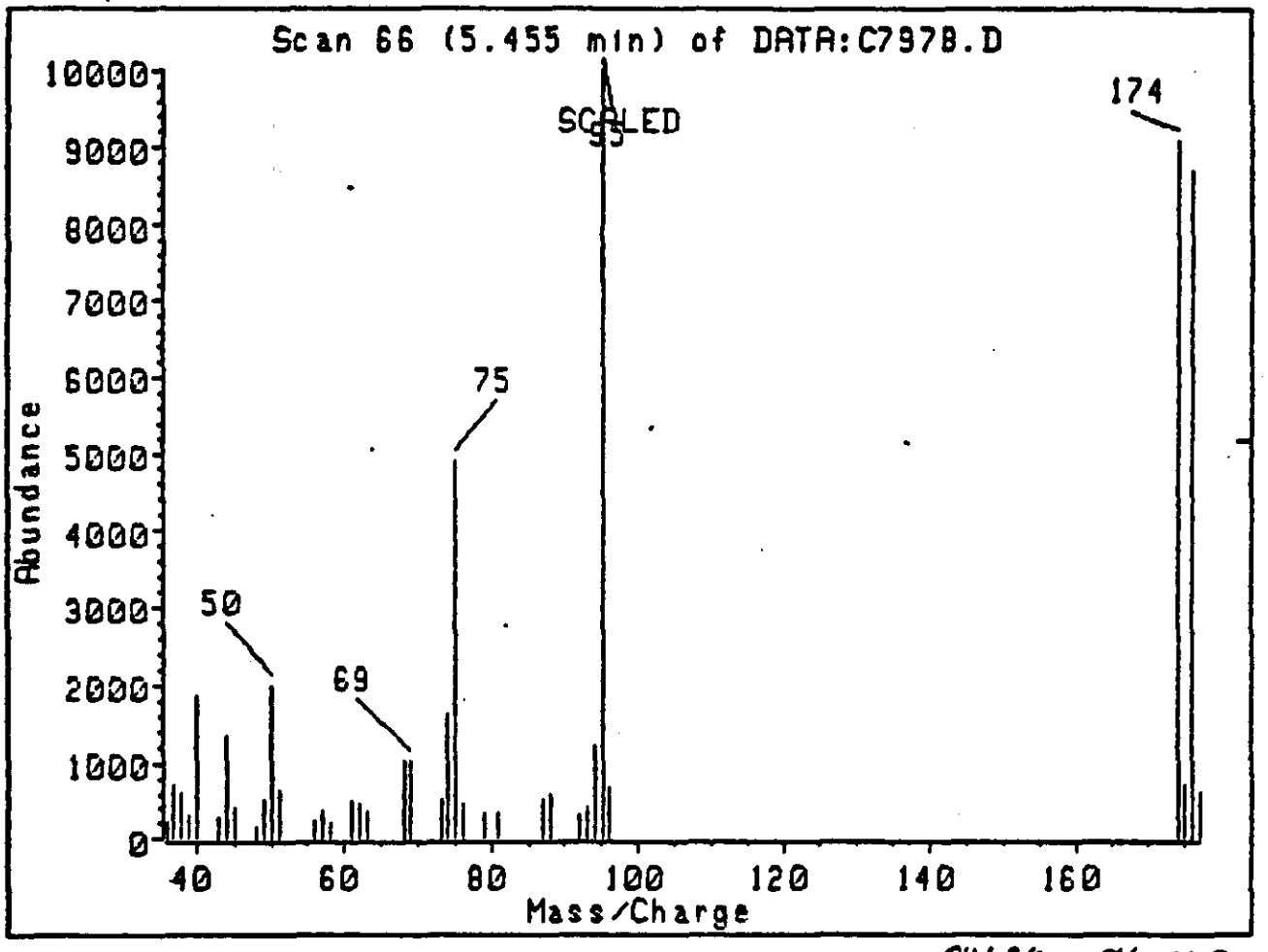
AR300269


MASS CHROMATOGRAM
09/25/87 9:54:00
SAMPLE: 2 UL BFB, DI, BFBTUNE
DATA: BFB0325
SCANS 90 TO 130
ORIGINAL (illegible)
105
86783.
441933.
AR303270
86784.
100.0
95
95.028
± 0.500
90
95
100
105
110
115
120
125
130

Scan 66 (5.455 min) of DATA:C7978.D
BFB D.I.

ORIGINAL (Red)

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	221	50.05	2006	69.05	1026	91.95	314
36.95	725	51.05	645	73.05	512	93.05	415
38.05	612	56.05	248	74.05	1621	94.05	1220
39.05	318	57.05	370	75.05	4899	95.05	10000
39.95	1874	58.05	204	76.05	463	96.05	686
42.95	282	61.05	491	78.95	333	174.05	9095
43.95	1331	62.05	467	80.95	346	175.05	715
45.05	402	63.05	368	87.05	511	176.05	8708
48.05	165	68.05	1023	88.05	590	177.05	607
48.95	504						



08:24 9/25/87

HP 5973 'C'

Data file: DATA:C7978.D
File type: GC / MS DATA FILE

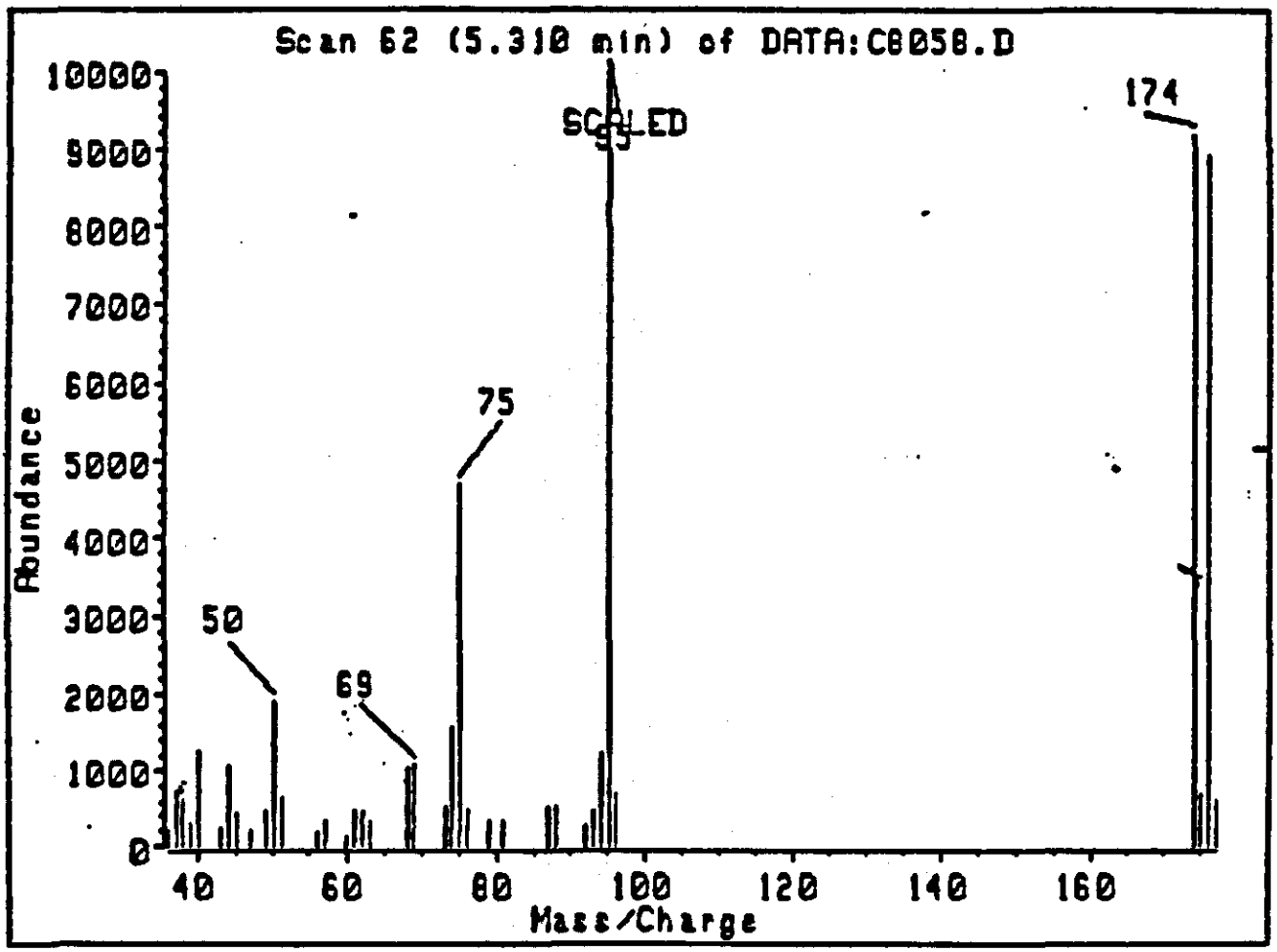
AR303271

Name Info: BFB D.I.
Misc Info: 9-25-87
Operator : BRI

Date : 25 Sep 87 8:28 am
Instrment: MS_5996

Scan 62 (5.310 min) of DATA:C8058.D
BFB D.I.

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.05	204	50.05	1887	69.05	1063	92.05	283
37.05	716	51.05	643	73.05	524	93.05	453
38.05	618	56.05	182	74.05	1581	94.05	1213
39.05	305	57.05	335	75.05	4691	95.05	10000
39.85	1250	60.05	148	76.05	477	96.05	684
43.05	274	61.05	467	78.05	333	174.05	9194
43.85	1040	62.05	468	80.05	328	175.05	684
45.05	426	63.05	345	87.05	507	176.05	8924
47.05	220	68.05	1015	88.05	520	177.05	609
49.05	454						



9/30/87
HP5443'c'

Data file: DATA:C8058.D
File type: GC / MS DATA FILE

Name Info: BFB D.I.
Misc Info: 9-30-87
Operator : BRI

Date : 30 Sep 87 9:38 am
Instrument: MS_5995
Inlet : GC

Sequence index : 4
Als bottle num : 35
Replicate num : 1

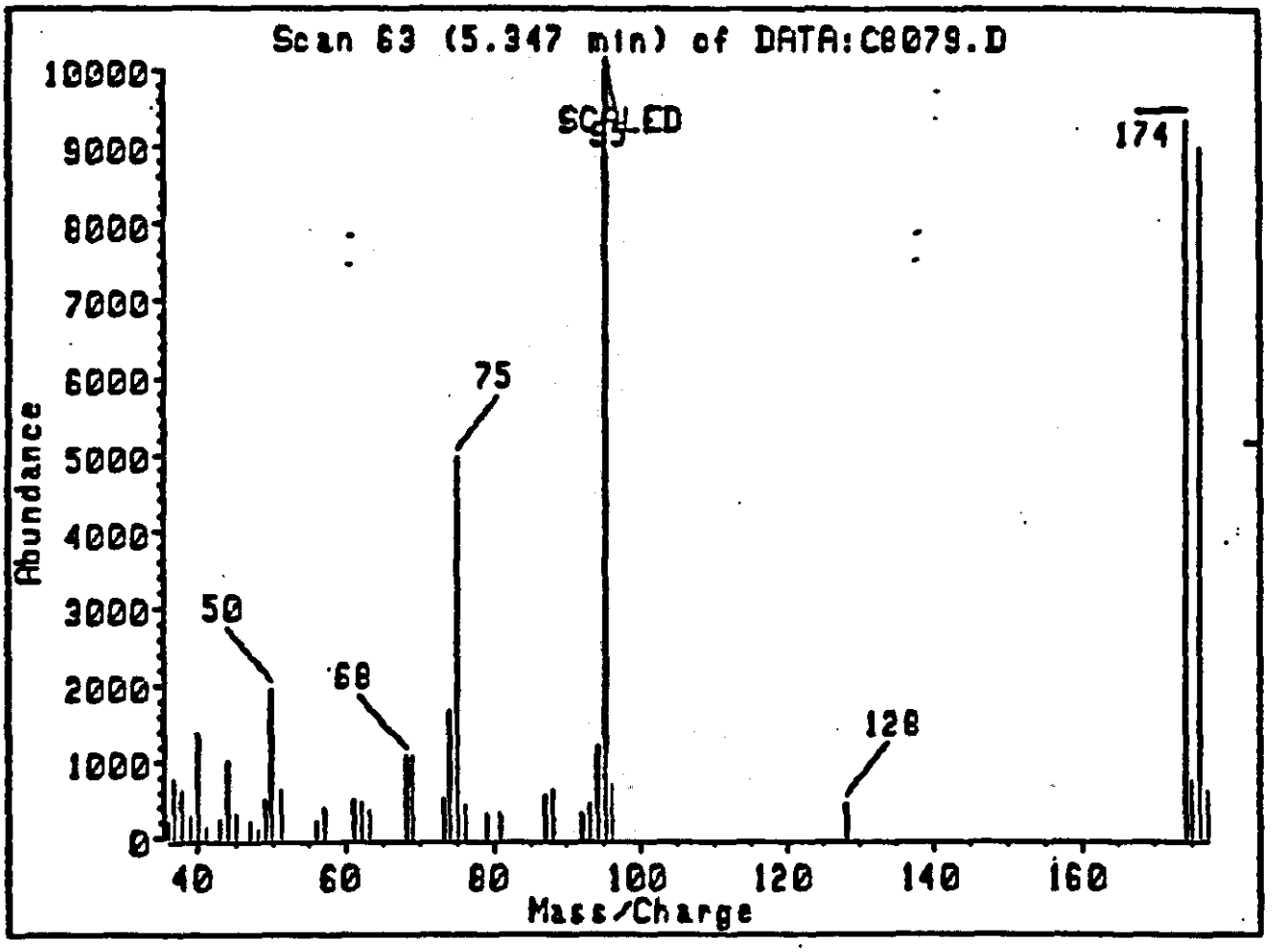
ORIGINAL (Red)

AR303273

Scan 63 (5.347 min) of DATA:C8079.D
BFB D.I.

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.05	208	48.05	116	69.05	1058	93.05	437
36.05	753	49.05	485	73.05	516	94.05	1190
38.05	607	49.95	1950	74.05	1665	95.05	10000
39.05	287	51.05	617	75.05	4954	96.05	682
39.95	1364	55.95	213	76.05	445	128.05	437
41.05	141	57.05	384	78.95	314	174.05	9345
43.05	238	61.05	483	80.95	318	175.05	749
43.95	988	62.05	457	85.95	670	176.05	8997
45.05	323	63.05	352	88.05	623	177.05	624
47.05	221	68.05	1070	92.05	310		

ORIGINAL (Red)



10.44cm

10/1/87

HP 5993 C

AR303274

Data file: DATA:C8879.D
File type: GC / MS DATA FILE

Name Info: BFB D.I.
Misc Info: 10-1-87
Operator : BRI

Date : 1 Oct 87 10:44 am
Instrument: MS_5995
Inlet : GC

Sequence index : 3
Als bottle num : 35
Replicate num : 1

ORIGINAL (red)

AR300275

ORIGINAL (Red)

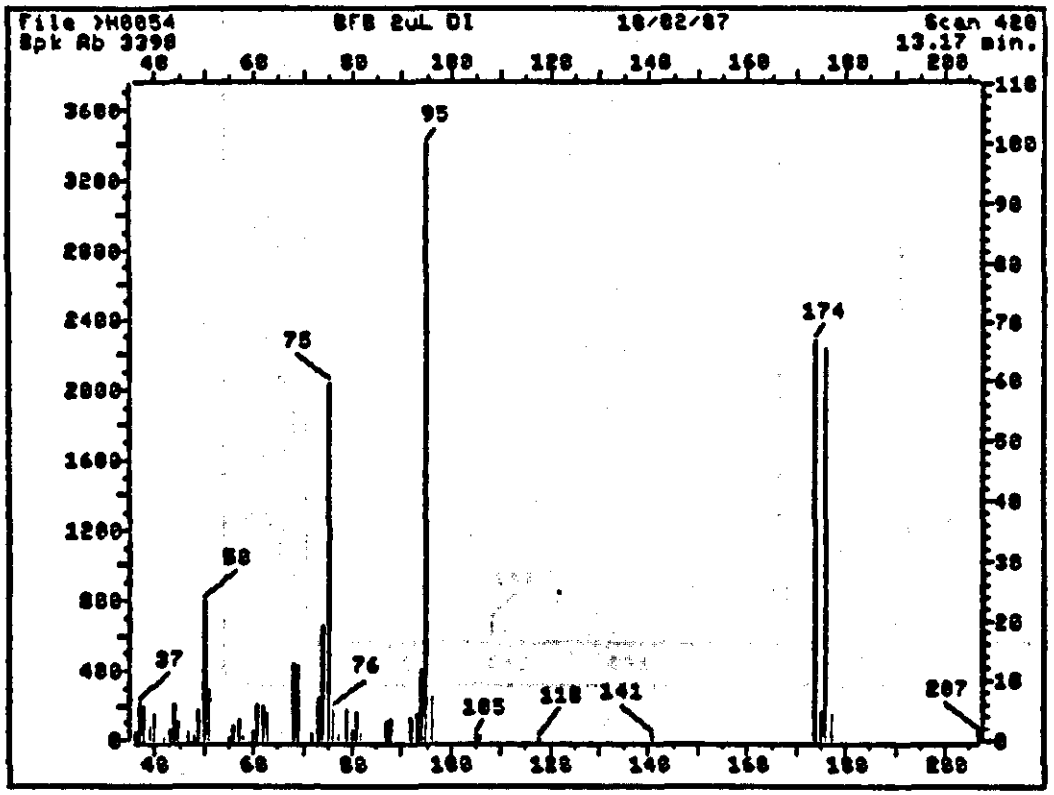
GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	23.45	23.45	Ok
75	30-60% of mass 95	59.80	59.80	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.45	7.45	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	67.01	67.01	Ok
175	5-9% of mass 174	4.71	7.03	Ok
176	95-101% of mass 174	65.66	97.98	Ok
177	5-9% of mass 176	4.36	6.63	Ok

Injection Date: 10/02/87
Injection Time: 11:59
Data File: >H0054
Scan: 420

:AL,,3 Move cursor; then press carriage return :



AR300276

HP 5970 'H'

ORIGINAL (Red)

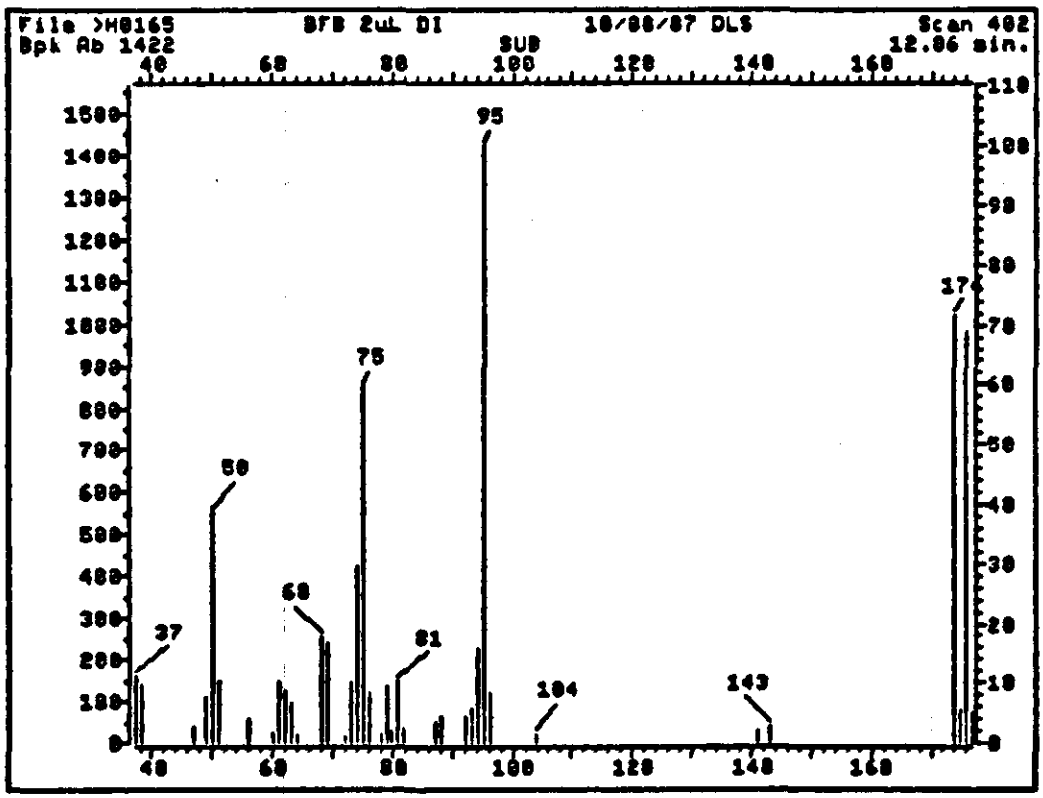
GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	38.82	38.82	Ok
75	30-60% of mass 95	59.70	59.70	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	8.44	8.44	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	71.66	71.66	Ok
175	5-9% of mass 174	5.41	7.56	Ok
176	95-101% of mass 174	68.85	96.07	Ok
177	5-9% of mass 176	5.06	7.35	Ok

Injection Date: 10/09/87
Injection Time: 08:58
Data File: >H0165
Scan: 402

:AL,,3 Move cursor; then press carriage return :



RU,TUNER,=BFB

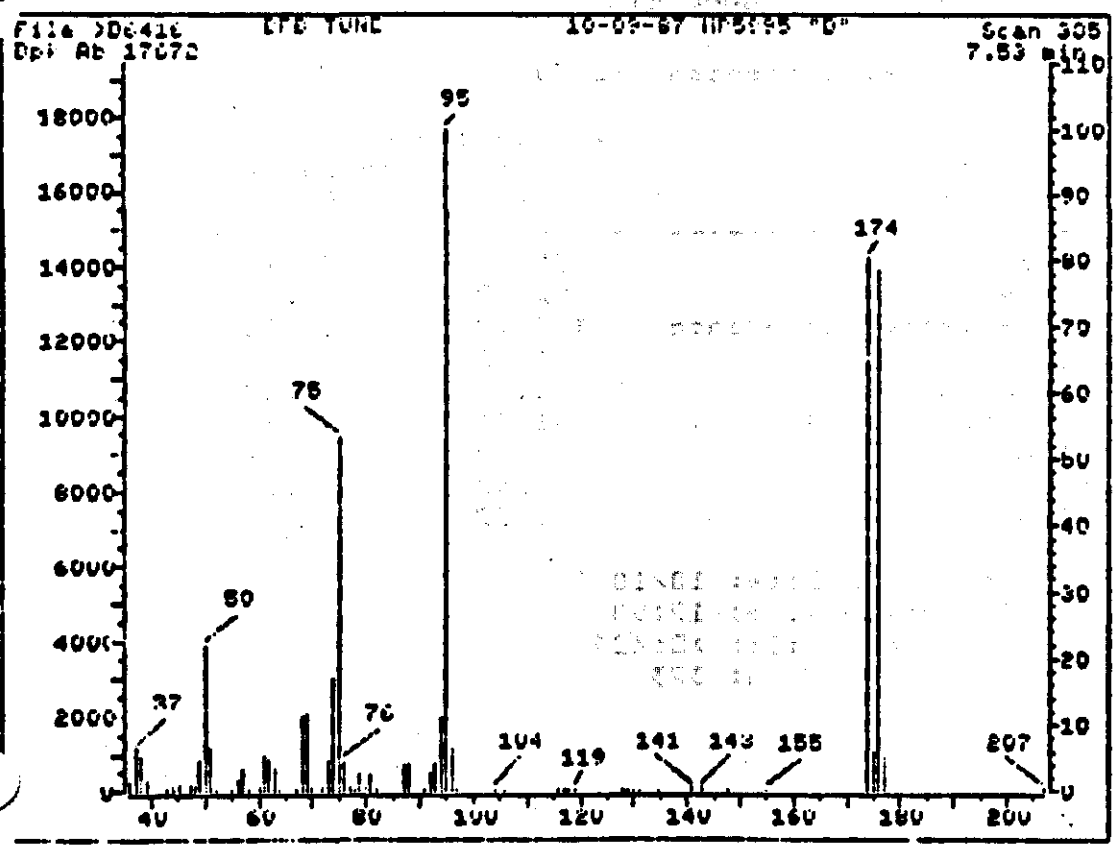
ORIGINAL (Red)

GC/MS PERFORMANCE STANDARD

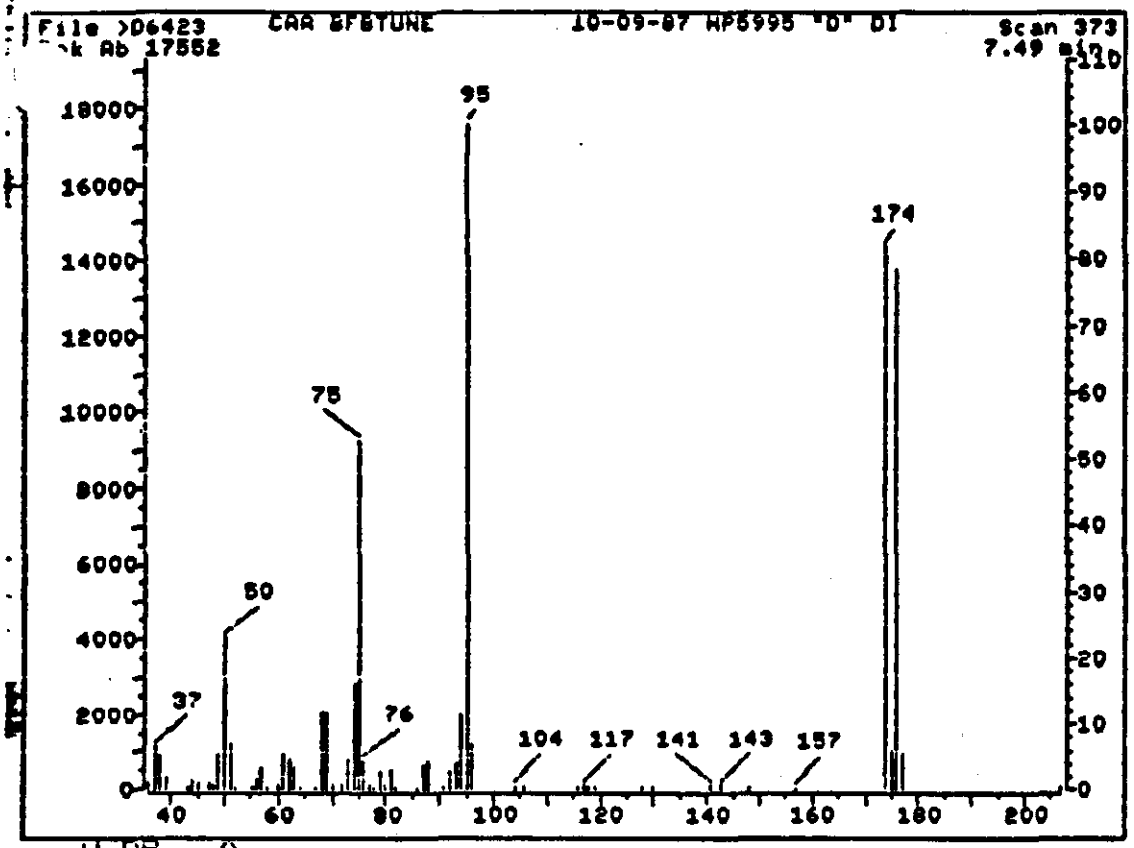
Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	22.00	22.00	Ok
75	30-60% of mass 95	53.35	53.35	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.59	6.59	Ok
173	Less then 1% of mass 95	0.00	0.00	Ok
174	Greater then 50% of mass 95	80.49	80.49	Ok
175	5-9% of mass 174	5.96	7.40	Ok
176	95-101% of mass 174	78.45	97.46	Ok
177	5-9% of mass 176	5.06	6.45	Ok

Injection Date: 10/09/87 GL
Injection Time: 08:52
Data File: >D6416
Scan: 385



AR303278



U,DR,,,A
U,NEW

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	22.98	22.98	Ok
75	30-60% of mass 95	52.62	52.62	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.83	6.83	Ok
173	Less then 1% of mass 95	0.00	0.00	Ok
174	Greater then 50% of mass 95	81.96	81.96	Ok
175	5-9% of mass 174	5.87	7.17	Ok
176	95-101% of mass 174	78.42	95.68	Ok
177	5-9% of mass 176	5.37	6.84	Ok

Injection Date: 10/10/87
Injection Time: 17:50
Data File: >D6423
Scan: 373

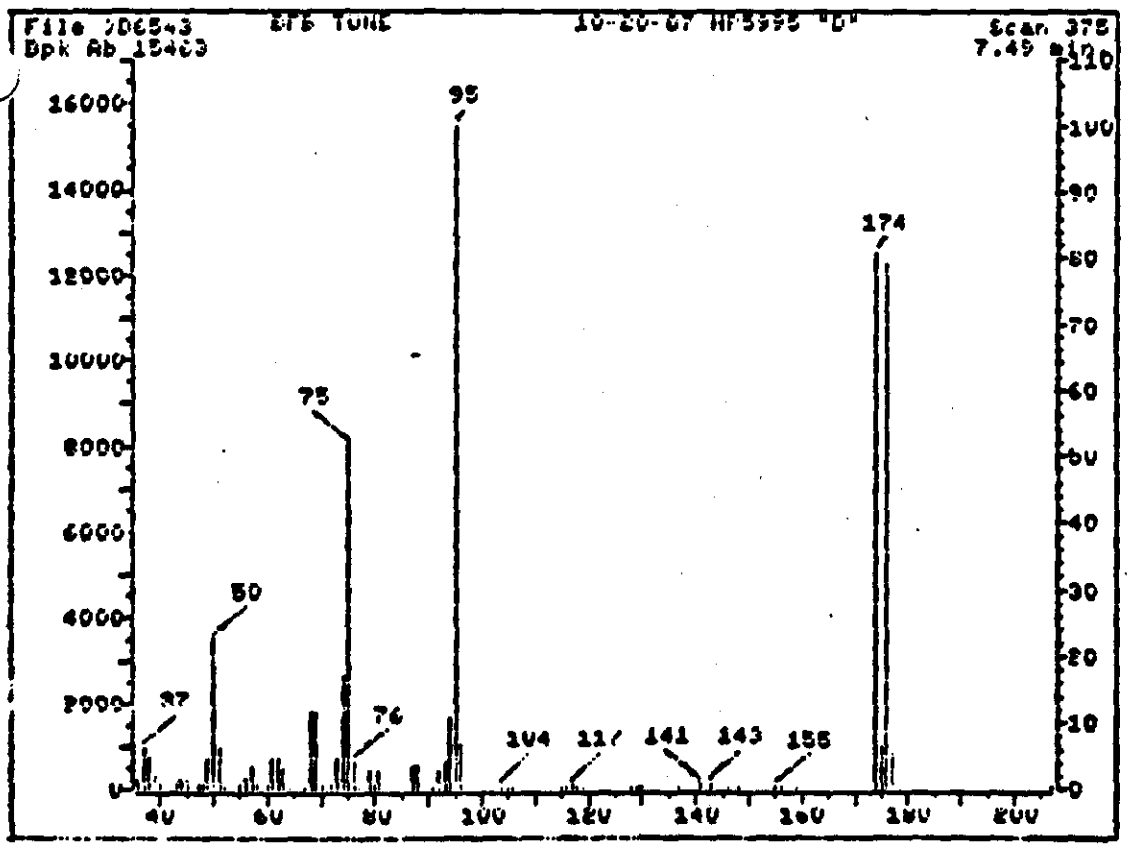
ORIGINAL (Red)

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	22.79	22.79	Ok.
75	30-60% of mass 95	52.27	52.27	Ok.
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.82	6.82	Ok.
173	Less then 1% of mass 95	0.00	0.00	Ok
174	Greater then 50% of mass 95	80.80	80.80	Ok.
175	5-9% of mass 174	6.10	7.56	Ok
176	95-101% of mass 174	79.17	97.98	Ok.
177	5-9% of mass 176	5.13	6.46	Ok

Injection Date: 10/20/87
Injection Time: 07:54
Data File: >D6543
Scan: 375



AR303280

Cambridge Analytical Associates

V RAW QC DATA PACKAGE

C. Blank Data

Sample Number
HBT DW Blank
C7958

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc. Case No: 8704173

Lab Sample ID No: DW Blank HBT C7958 C7958MS OC Report No:

Sample Matrix: Water Contract No:

Data Release Authorized By: Rona Marquis Date Sample Received: 9/24/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 9/24/87

Date Analyzed: 9/24/87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
09-2	Methylene Chloride	NR
64-1	Acetone	NR
-15-0	Carbon Disulfide	5 U
75-35-4	1,1-Dichloroethene	NR
75-34-3	1,1-Dichloroethane	NR
156-60-5	Trans-1,2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1,2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1,1,1-Trichloroethane	NR
56-23-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	NR
10061-02-6	Trans-1,3-Dichloropropene	NR
79-01-6	Trichloroethene	NR
124-48-1	Dibromochloromethane	NR
79-00-5	1,1,2-Trichloroethane	NR
71-43-2	Benzene	NR
10061-01-5	cis-1,3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1,1,2,2-Tetrachloroethane	NR
108-88-3	Toluene	NR
108-90-7	Chlorobenzene	NR
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes may be created as well. However, the definition of each flag must be explained.

blank: If the result is a value greater than or equal to the detection limit, report the value.

U: Indicates compound was analyzed for but not detected. Report the specified detection limit for the sample with the U (e.g., 10U) based on the laboratory concentration/dilution factor. (This is not necessarily the instrument detection limit.) The laboratory should report U-Compound not analyzed for but not detected. The number is the minimum reportable detection limit for the sample.

J: Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds, where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

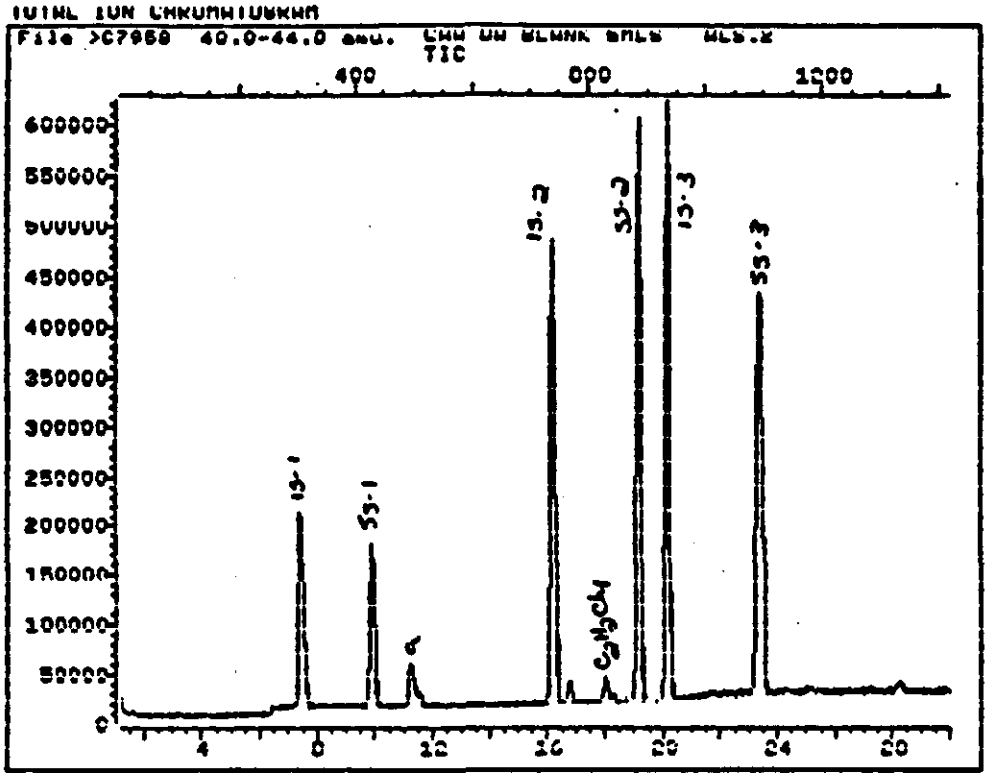
C: This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/ml in the final extract should be confirmed by GC/MS.

B: This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other: Other specific flags and footnotes may be required to properly define the results. If used, they must be fully explained and submitted to the data summary report.

NR not reported

TOTAL ION CHROMATOGRAM



Data File: >C7959::UP
Name: CAA DW BLANK 8MLS
Misc: ALS.2

Id File: CVS24::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)
Last Calibration: 870925 10:45

Operator ID:
Quant Time: 870925 10:45
Injected at: 870924 11:28

QUANT REPORT

Operator ID: Quant Rev: 4 Quant Time: 870925 10:45
Output File: ^C7958::P1 Injected at: 870924 11:28
Data File: >C7958::UP Dilution Factor: 1.00
Name: CAA DW BLANK SMLS
Misc: ALS.2

ID File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)
Last Calibration: 870925 10:45

	Compound	R.T.	Scan#	Area	Conc	Units	Q
1)	*BROMOCHLOROMETHANE IS-1	7.41	305	369906	50.00	UG/L	100
14)	D4-1,2-DICHLORDETHANE (SS-1)	8.89	428	521899	102.44	UG/L	90
15)	*1,4-DIFLUOROBENZENE IS-2	16.17	738	1817676	50.00	UG/L	100
18)	VINYL ACETATE	11.22	494	87039	16.05	UG/L	100
19)	VINYL ACETATE	11.55	510	15736	2.90	UG/L	100
30)	*DS-CHLORDBENZENE IS-3	20.11	932	1909944	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	16.72	765	90220	7.89	UG/L	79
32)	2-HEXANONE	18.00	828	100462	12.13	UG/L	97
34)	1,1,2,2-TETRACHLORDETHANE	18.30	843	24802	1.71	UG/L	92
35)	D-8 TOLUENE (SS-2)	18.14	834	1855276	100.81	UG/L	92
39)	BROMOFLUOROBENZENE (SS-3)	23.36	1092	1102910	99.99	UG/L	92

* Compound is ISTD

AR303284

Sample Number
HB-DW Blank C7480

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc. Case No: 8709173

Lab Sample ID No: DW Blank C7480 QC Report No:

Sample Matrix: Water Contract No:

Data Release Authorized By: Rona Harris Date Sample Received: 9/25/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 9/25/87

Date Analyzed: 9/25/87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
75-09-2	Methylene Chloride	NR
67-64-1	Acetone	NR
75-15-0	Carbon Disulfide	5 U
75-35-4	1, 1-Dichloroethene	NR
75-34-3	1, 1-Dichloroethane	NR
156-60-5	Trans-1, 2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1, 2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1, 1, 1-Trichloroethane	NR
56-23-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NR
10061-02-6	Trans-1, 3-Dichloropropene	NR
79-01-6	Trichloroethene	NR
124-48-1	Dibromochloromethane	NR
79-00-5	1, 1, 2-Trichloroethane	NR
71-43-2	Benzene	NR
10061-01-5	cis-1, 3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1, 1, 2, 2-Tetrachloroethane	NR
108-88-3	Toluene	NR
108-90-7	Chlorobenzene	NR
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

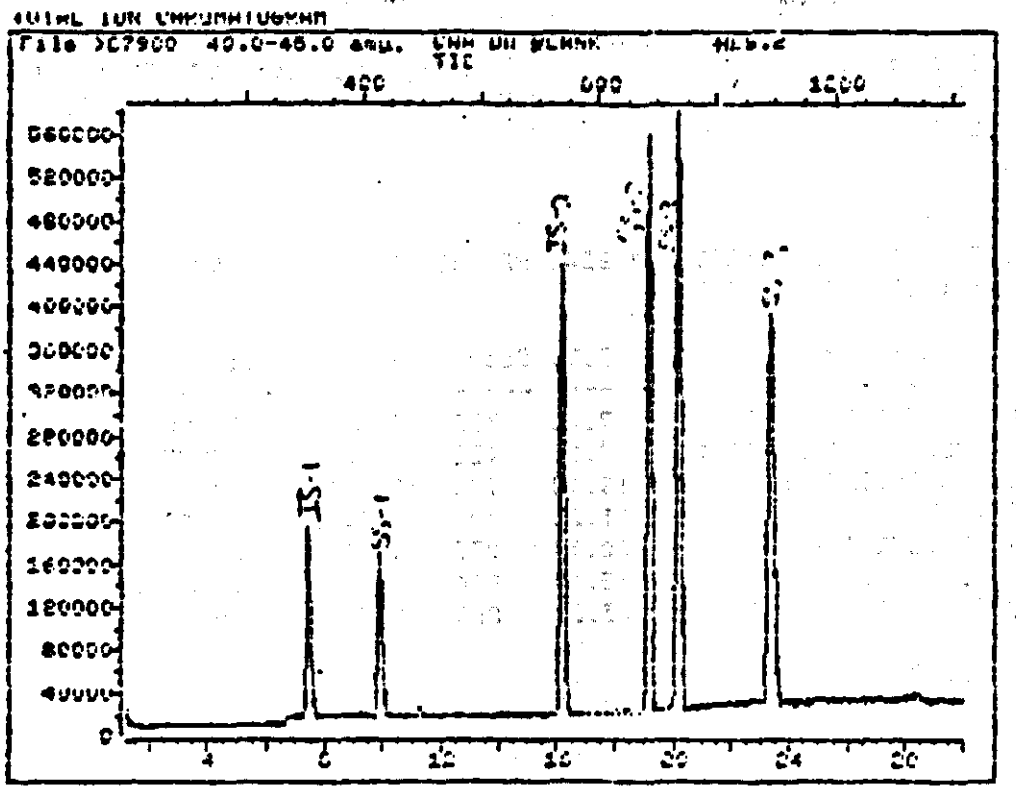
For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained.

- Value: If the result is a value greater than or equal to the detection limit, report the value.
- U: Indicates compound was analyzed for but not detected. Report the sample detection limit for the sample with the U (i.e. 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected." The number is the minimum quantitation detection limit for the sample.
- J: Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (where a 1:1 response is assumed) or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g. 15J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
- C: This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.
- B: This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- Other: Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and their application described to the data summary report.

NR not reported

AR303285

AR303285



Data File: >C7900::UP
Name: CAA DW BLANK
Misc: ALS.2

Id File: DV624::F1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5992-05 (INSTR. C)
Last Calibration: 870825 14:07

Operator ID:
Quant Time: 870825 14:25
Injected at: 870825 ~~11:30~~ 11:49

AR303286

QUANT REPORT

Operator ID: Quant Rev: 4 Quant Time: 870825 14:25
Output File: ^C7980::P1 Injected at: 870825 11:09
Data File: >C7980::UP Dilution Factor: 1.00
Name: CAA DW BLANK
Misc: ALS.2

ID File: CV824::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5988-QS (INSTR. C)
Last Calibration: 870825 14:07

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE IS-1	7.42	308	343306	50.00	UG/L	100
14)	D4-1,2-DICHLOROETHANE (SS-1)	9.90	428	501220	97.75	UG/L	98
15)	*1,4-DIFLUOROBENZENE IS-2	15.18	738	1634599	50.00	UG/L	100
19)	VINYL ACETATE	11.23	494	8482	1.42	UG/L	130
30)	*D5-CHLOROBENZENE IS-3	20.14	933	1749829	50.00	UG/L	100
35)	D-8 TOLUENE (SS-2)	19.15	884	1671154	98.84	UG/L	98
39)	BROMOFLUOROBENZENE (SS-3)	23.38	1082	993933	99.89	UG/L	99

* Compound is ISTD

J.T.

Sample Number
MBT + DW Blank

Organics Analysis Data Sheet
(Page 1)

ORIGINAL

Laboratory Name: Cambridge Analytical Assoc. Case No: 8709172
Lab Sample ID No: DW Blank (blk 8577) QC Report No:
Sample Matrix: Water Contract No:
Data Release Authorized By: Steve Marquis Date Sample Received: 9/25/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 9/25/87
Date Analyzed: 9/25/87
Conc/Dil Factor: 1 pH
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
75-09-2	Methylene Chloride	NR
67-64-1	Acetone	NR
75-15-0	Carbon Disulfide	5 U
75-35-4	1,1-Dichloroethene	NR
75-34-3	1,1-Dichloroethane	NR
156-60-5	Trans-1,2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1,2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1,1,1-Trichloroethane	NR
56-23-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/L or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	NR
10061-02-6	Trans-1,3-Dichloropropene	NR
79-01-6	Trichloroethene	NR
124-48-1	Dibromochloromethane	NR
79-00-5	1,1,2-Trichloroethane	NR
71-43-2	Benzene	NR
10061-01-5	cis-1,3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1,1,2,2-Tetrachloroethane	NR
108-88-3	Toluene	NR
108-90-7	Chlorobenzene	NR
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be stated.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the detection limit for the sample with the U (i.e., 10U) based on matrix, concentration, dilution factor. (This is not necessarily the detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (where a 1:1 response is assumed) or when the data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (i.e., 10J). If limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, report as 3J.

C This flag applies to pesticide/PCB analytes where the identification has been confirmed by GC/MS. Single component analytes ≥ 10 ng/ml on the final column should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and their application consistent. AR303288

NR not reported

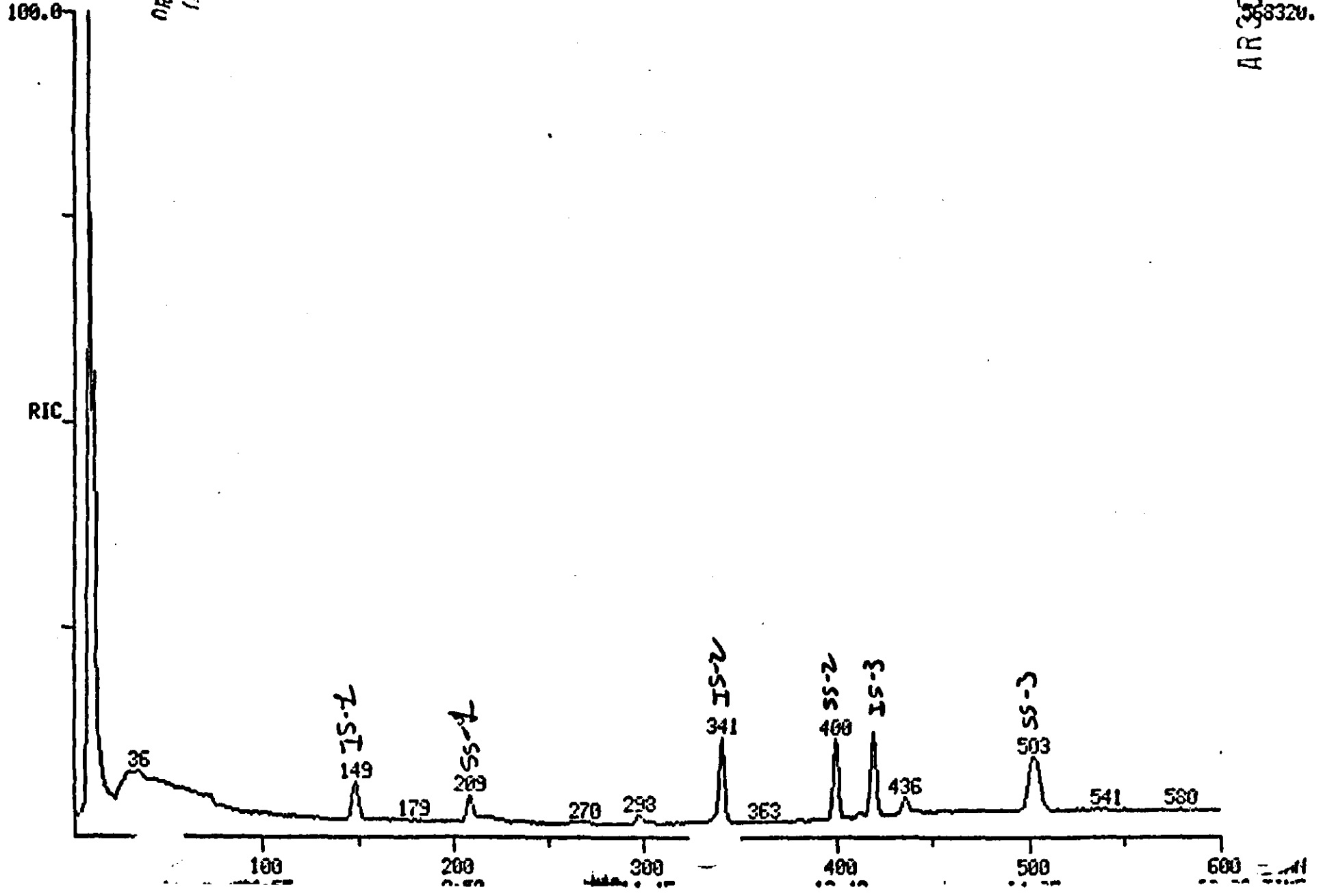
AR303288

RIC
09/25/87 10:34:00
SAMPLE: ALS 3, DW BLANK, CAA, 5mL

DATA: WATER8577 SCANS 1 TO 600

ORIGINAL (Red)

AR303289



AR303289

JNNIGAN ORGANICS IN WATER ANALYZER
UANTITATION REPORT FILE: WATER8577

ATA: WATER8577.TI
9/25/87 10:34:00
A
L TED BY: ANALYST:

ORIGINAL (Red)

MOUNT=AREA(HGHT) * REF. AMNT/(REF. AREA(HGHT)* RESP. FACT)
ESP. FAC. FROM LIBRARY ENTRY

NO	NAME
1	BROMOCHLOROMETHANE (INTERNAL STANDARD #1)
2	CHLOROMETHANE
3	BROMOMETHANE
4	VINYL CHLORIDE
5	CHLOROETHANE
6	METHYLENE CHLORIDE
7	ACETONE
8	CARBON DISULFIDE
9	1,1-DICHLOROETHYLENE
10	1,1-DICHLOROETHANE
11	TRANS-1,2-DICHLOROETHYLENE
12	CHLOROFORM
13	1,2-DICHLOROETHANE
14	D4-1,2-DICHLOROETHANE (SURROGATE STANDARD 1)
15	1,4-DIFLUOROBENZENE (INTERNAL STANDARD 2)
16	2-BUTANONE (MEK)
17	1,1,1-TRICHLOROETHANE
18	CARBON TETRACHLORIDE
19	'INYL ACETATE
2(	ROMODICHLOROMETHANE
2.	1,2-DICHLOROPROPANE
22	CIS-1,3-DICHLOROPROPENE
23	TRICHLOROETHYLENE
24	DIBROMOCHLOROMETHANE
25	1,1,2-TRICHLOROETHANE
26	BENZENE
27	TRANS-1,3-DICHLOROPROPENE
28	2-CHLOROETHYL VINYL ETHER
29	BROMOFORM
30	D8-TOLUENE (SURROGATE STANDARD 2)
31	D5-CHLOROBENZENE (INTERNAL STANDARD 3)
32	4-METHYL-2-PENTANONE (MIBK)
33	2-HEXANONE (NPK)
34	TETRACHLOROETHYLENE
35	1,1,2,2-TETRACHLOROETHANE
36	TOLUENE
37	CHLOROBENZENE
38	ETHYLBENZENE
39	STYRENE
40	META-XYLENE
41	ORTHO,PARA-XYLENES
42	D8-TOLUENE (SURROGATE STANDARD 2)
43	4-BROMOFLUOROBENZENE (SURROGATE STANDARD 3)

T E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	
T 30	149	7:20	1	1.000	A BB	16139.	50.000 UG/L	9.50

AR303290

AR303290

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
2	NOT FOUND									
3	NOT FOUND									
4	NOT FOUND									
5	NOT FOUND									
6	NOT FOUND									
7	NOT FOUND									
8	NOT FOUND									
9	NOT FOUND									
10	NOT FOUND									
11	NOT FOUND									
12	NOT FOUND									
13	NOT FOUND									
14	65	209	10:17	1	1.403	A BB	23987.	85.551	PRCNT	16.25
15	114	341	16:46	15	1.000	A BB	71978.	50.000	UG/L	9.50
16	NOT FOUND									
17	NOT FOUND									
18	NOT FOUND									
19	NOT FOUND									
20	NOT FOUND									
21	NOT FOUND									
22	NOT FOUND									
23	NOT FOUND									
24	NOT FOUND									
25	NOT FOUND									
26	NOT FOUND									
27	NOT FOUND									
28	NOT FOUND									
29	NOT FOUND									
30	98	400	19:40	15	1.173	A BB	66911.	93.112	PRCNT	17.69
31	117	420	20:39	31	1.000	A BB	63534.	50.000	UG/L	9.50
32	NOT FOUND									
33	NOT FOUND									
34	NOT FOUND									
35	NOT FOUND									
36	NOT FOUND									
37	NOT FOUND									
38	NOT FOUND									
39	NOT FOUND									
40	NOT FOUND									
41	NOT FOUND									
42	98	400	19:40	31	0.952	A BB	66911.	94.232	PRCNT	17.90
43	95	503	24:44	31	1.198	A BB	59707.	103.564	PRCNT	19.67

NKNOWN SAMPLE QUANTITATION OWA REVERSE SEARCH STATUS REPORT

HE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -75 % OF THE LAST STANDARD RUN
OMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUA

ORIGINAL (2nd)

EPORT NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
1	149	149	926	625	1	1	1	0
COMPOUND PASSED REVERSE SEARCH BUT WAS BELOW MINIMUM AREA FOR ION QUANTITA								
6	82	82	705	45	6	1	0	0
14	210	209	949	612	14	1	1	0

HE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: -81 % OF THE LAST STANDARD RUN
OMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUB

EPORT NTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
15	341	341	973	703	1	1	1	0
30	401	400	906	851	16	1	1	0

HE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 1131 % OF THE LAST STANDARD RUN
OMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUC

EPORT NTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
31	420	420	966	817	1	1	1	0
42	401	400	906	851	12	1	1	0
43	503	502	857	628	13	1	1	0

R OF COMPOUNDS IDENTIFIED 8
AIN PROCESSING OF WATER8577 COMPLETED ON 9/25/87 11:47:29

AR303292

Sample Number
Dw Blank [illegible]

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc.
Case No: 8709172
Lab Sample ID No: Dw Blank (C7980)
QC Report No:
Sample Matrix: Water
Contract No: --
Data Release Authorized By: [illegible]
Date Sample Received: 9/25/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 9/25/87
Date Analyzed: 9/25/87
Conc/Dil Factor: 1 pH
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
75-09-2	Methylene Chloride	NR
67-64-1	Acetone	NR
75-15-0	Carbon Disulfide	5 U
75-35-4	1, 1-Dichloroethene	NR
75-34-3	1, 1-Dichloroethane	NR
156-60-5	Trans-1, 2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1, 2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1, 1, 1-Trichloroethane	NR
56-23-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NR
10061-02-6	Trans-1, 3-Dichloropropene	NR
79-01-6	Trichloroethene	NR
124-48-1	Dibromochloromethane	NR
79-00-5	1, 1, 2-Trichloroethane	NR
71-43-2	Benzene	NR
10061-01-5	cis-1, 3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1, 1, 2, 2-Tetrachloroethane	NR
108-88-3	Toluene	NR
108-90-7	Chlorobenzene	NR
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. [illegible]

J — Indicates an estimated value. [illegible]

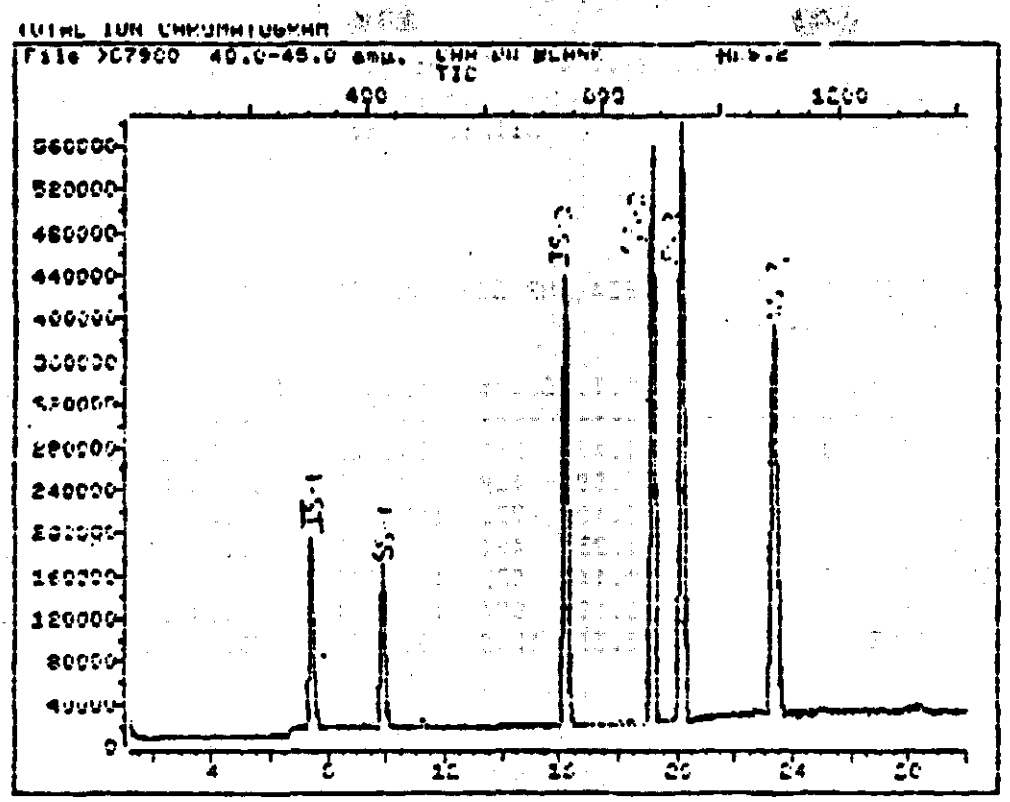
C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. [illegible]

B — This flag is used when the analyte is found in the blank as well as a sample. [illegible]

Other — [illegible]

NR not reported

ORIGINAL (Red)



Data File: >C7900:<UP
Name: CHK DW BLANK
Mass: ALS.2

Id File: OVE24::F1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-05 (INSTR. C)
Last Calibration: 870825 14:07

Operator ID:
Count Time: 870825 14:25
Injected at: 870825 ~~11:30~~ 11:49

AR303294

QUANT REPORT

Operator ID: Quant Rev: 4 Quant Time: 870925 14:25
Output File: ^C7980::P1 Injected at: 870925 11:02
Data File: >C7980::UP Dilution Factor: 1.00
Name: CAA DW BLANK
Misc: ALS.2

ID File: CVE24::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5985-QS (INSTR. C)
Last Calibration: 870925 14:07

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE IS-1	7.42	385	343306	50.00	UG/L	100
14)	D4-1,2-DICHLOROETHANE (SS-1)	9.99	428	501220	97.75	UG/L	89
15)	*1,4-DIFLUOROBENZENE IS-2	15.19	739	1634599	50.00	UG/L	100
19)	VINYL ACETATE	11.23	494	8457	1.42	UG/L	120
30)	*DS-CHLOROBENZENE IS-3	20.14	933	1749879	50.00	UG/L	100
35)	D-8 TOLUENE (SS-2)	18.15	884	1671154	99.84	UG/L	99
39)	BROMOFLUOROBENZENE (SS-3)	23.38	1092	992933	99.69	UG/L	99

* Compound is ISTD

f.f.

AR303295

QUANT REPORT

Operator ID: Quant Rev: 4 Quant Time: 870925 14:25
Output File: >C7920::P1 Injected at: 870925 11:03
Data File: >C7920::UP Dilution Factor: 1.00
Name: CAA DW BLANK
Misc: ALS.2

ID File: CV524::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 524, HP 5973-QS (INSTR. C)
Last Calibration: 870925 14:07

	Compound	R.T.	Scan#	Area	Conc	Units	q
19)	VINYL ACETATE	11.22	454	8483	1.42	UG/L	100

AR303296

Sample Number
DrBlank
C8081

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc. Case No: 8709207
Lab Sample ID No: DrBlank C8081 QC Report No:
Sample Matrix: Water Contract No: 68-01-7278
Data Release Authorized By: Rona Marquis Date Sample Received: 10/1/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 10/1/87
Date Analyzed: 10/1/87
Conc/Dil Factor: 1 pH
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
75-09-2	Methylene Chloride	NR
64-1	Acetone	NR
15-0	Carbon Disulfide	5 U
75-35-4	1,1-Dichloroethene	NR
75-34-3	1,1-Dichloroethane	NR
156-60-5	Trans-1,2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1,2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1,1,1-Trichloroethane	NR
56 73-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/L or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	NR
10061-02-6	Trans-1,3-Dichloropropene	NR
79-01-6	Trichloroethene	NR
124-48-1	Dibromochloromethane	NR
79-00-5	1,1,2-Trichloroethane	NR
71-43-2	Benzene	NR
10061-01-5	cis-1,3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1,1,2,2-Tetrachloroethane	NR
108-88-3	Toluene	NR
108 90-7	Chlorobenzene	NR
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the minimum quantitation limit for the sample."

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (where a 1:1 response is assumed) or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/L and a concentration of 3 µg/L is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final solution should be confirmed by GC/MS.

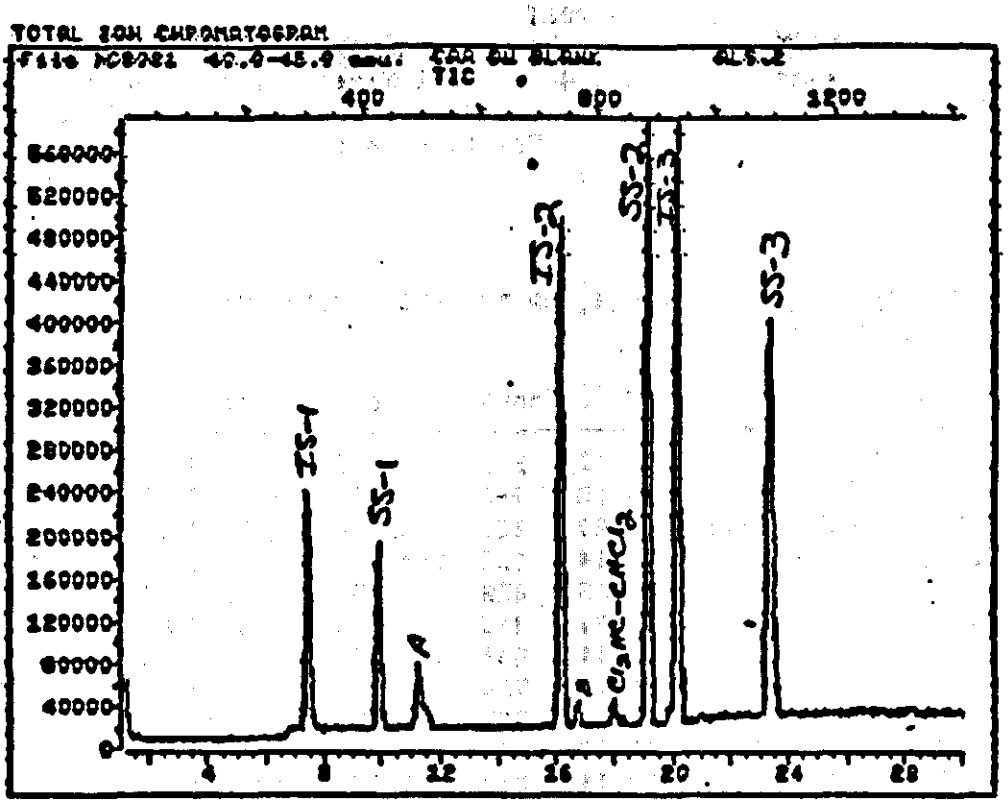
B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and placed on the data summary report.

NR not reported

AR303297

AR303297



ORIGINAL
(Red)

Data File: >C8081::UP
Name: CAA DW BLANK
Misc: ALS.2

Id File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)
Last Calibration: 871001 16:18

Operator ID:
Quant Time: 871002 09:18
Injected at: 871001 13:04

AR303298

QUANT REPORT

Operator ID: Quant Rev: 4 Quant Time: 871002 09:18
Output File: ^CB0B1::P3 Injected at: 871001 13:04
Data File: >CB0B1::UP Dilution Factor: 1.00
Name: CAA DW BLANK
Misc: AL5.2

ORIGINAL (Red)

ID File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)
Last Calibration: 871001 15:19

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	7.42	305	429259	50.00	UG/L	100
7)	ACETONE	5.93	282	3219	.69	UG/L	100
14)	D4-1,2-DICHLOROETHANE (SS-1)	9.87	427	582940	102.85	UG/L	91
15)	•1,4-DIFLUOROBENZENE IS-2	15.14	736	1847218	50.00	UG/L	100
19)	VINYL ACETATE	10.45	456	3367	.40	UG/L	100
19)	VINYL ACETATE	11.21	493	129488	15.32	UG/L	100
30)	•D5-CHLOROBENZENE IS-3	20.11	931	1765777	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	16.71	764	96474	7.09	UG/L	94
32)	2-HEXANONE	17.97	826	113033	10.81	UG/L	96
34)	1,1,2,2-TETRACHLOROETHANE	19.20	841	29812	1.74	UG/L	97
35)	D-8 TOLUENE (SS-2)	19.11	882	1788751	103.53	UG/L	90
39)	BROMOFLUOROBENZENE (SS-3)	23.36	1091	1006190	101.45	UG/L	91

• Compound is ISTD

AR303299

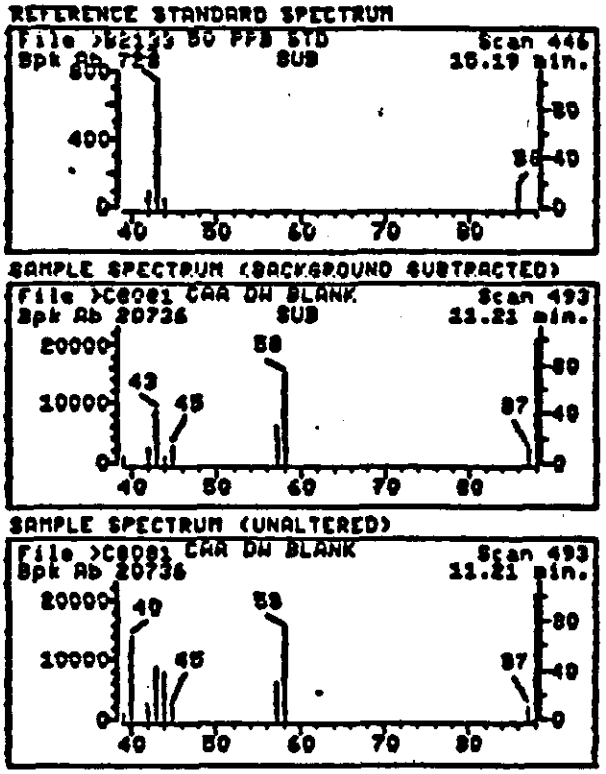
QUANT REPORT

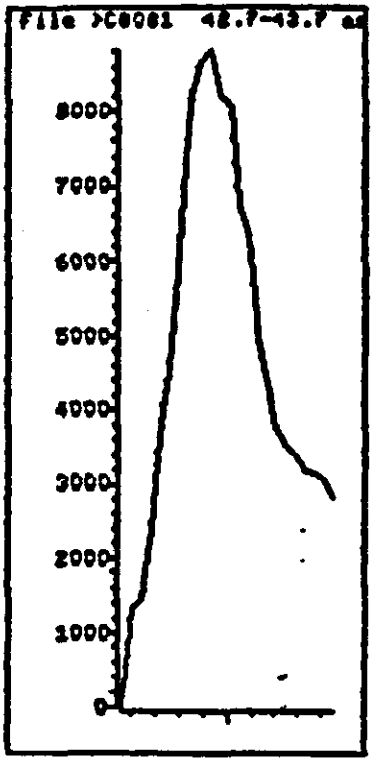
Operator ID: Quant Rev: 4 Quant Time: 871002 09:18
Output File: ^CB081::P3 Injected at: 871001 13:04
Data File: >CB081::UP Dilution Factor: 1.00
Name: CAA DW BLANK
Misc: ALS.2

ID File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 524. HP 5993-QS (INSTR. C)
Last Calibration: 871001 15:18

	Compound	R.T.	Scan#	Area	Conc	Units	q	
18)	VINYL ACETATE	11.21	493	129488	15.32	UG/L	100	F.P.
31)	4-METHYL-2-PENTANONE	16.71	764	95474	7.09	UG/L	94	F.P.
32)	2-HEXANONE	17.97	826	113033	10.81	UG/L	86	F.P.
34)	1,1,2,2-TETRACHLOROETHANE	18.28	841	29812	1.74	UG/L	97	✓

AR303300



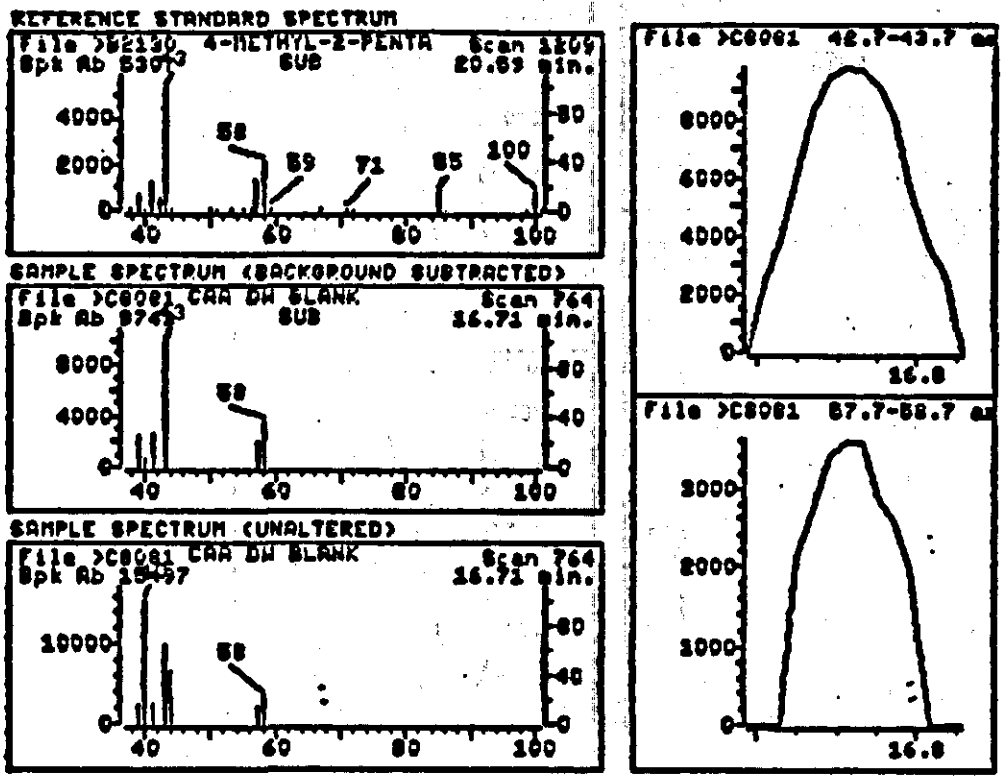


ORIGINAL (red)

Data File: >C8081::UP
Name: CAA DW BLANK
Misc: ALS.2
Quant Time: 871002 09:18
Injected at: 871001 13:04

Compound No: 19
Compound Name: VINYL ACETATE
Scan Number: 493
Retention Time: 11.21 min.
Area: 129488
Concentration: 15.32 UG/L
q-value: 100

F.P.



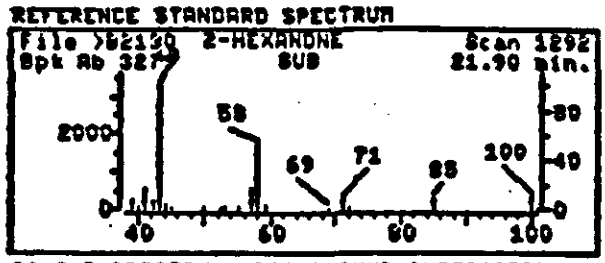
ORIGINAL (red)

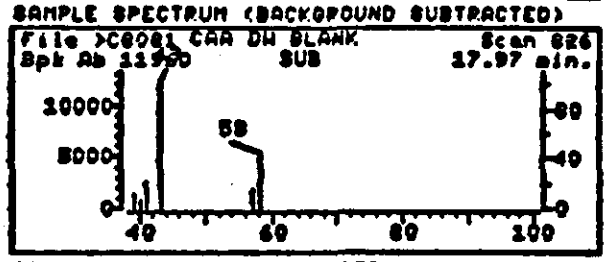
Data File: >C8081::UP
Name: CAA DW BLANK
Misc: ALS.2
Quant Time: 871002 09:18
Injected at: 871001 13:04

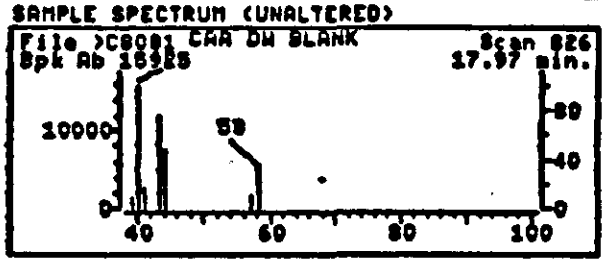
Compound No: 31
Compound Name: 4-METHYL-2-PENTANONE
Scan Number: 764
Retention Time: 16.71 min.
Area: 95474
Concentration: 7.09 UG/L
q-value: 94

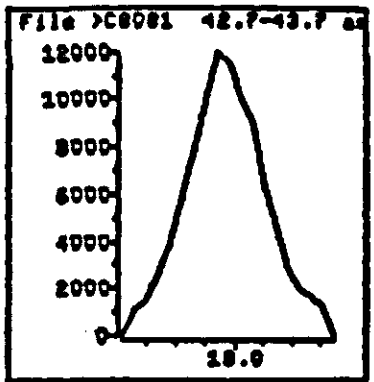
F.P.

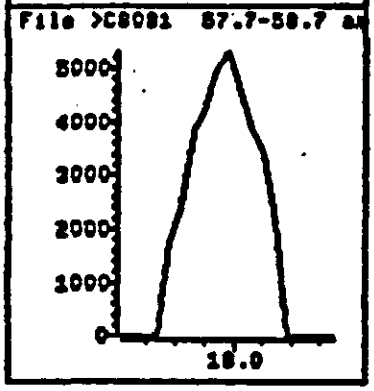
AR303302









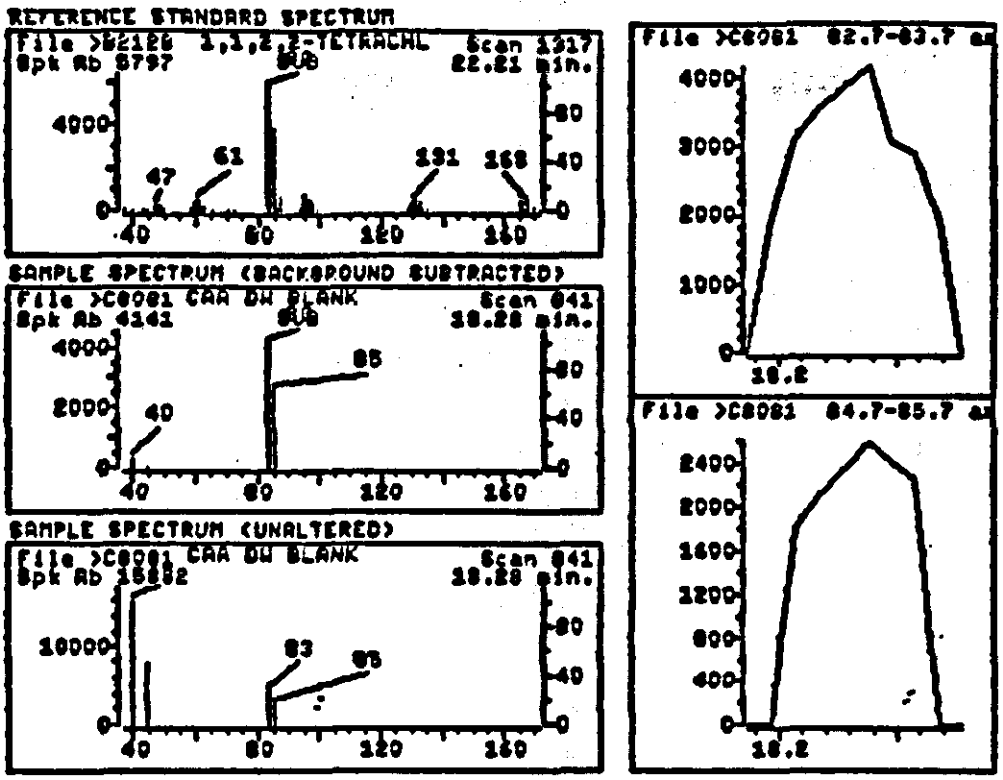


ORIGINAL (Red)

Data File: >C8081::UP
Name: CAA DW BLANK
Misc: ALS.2
Quant Time: 871002 09:18
Injected at: 871001 13:04

F.P.

Compound No: 32
Compound Name: 2-HEXANONE
Scan Number: 826
Retention Time: 17.97 min.
Area: 113033
Concentration: 18.81 UG/L
q-value: 96



Data File: >C8081::UP
Name: CAA DW BLANK
Misc: ALS.2
Quant Time: 871002 08:18
Injected at: 871001 13:04

Compound No: 34
Compound Name: 1,1,2,2-TETRACHLORDETHANE
Scan Number: 841
Retention Time: 18.28 min.
Area: 29812
Concentration: 1.74 UG/L
q-value: 87

Data file: C8081.D
File type: GC / MS DATA FILE

Name Info: CAA DW BLANK
Misc Info: ALS.2
Operator : BRI

Date : 1 Oct 87 1:04 pm
Instrment: MS_5995
Inlet : GC

Sequence index : 1
Als bottle num : 2
Replicate num : 1

Sample Number
DUBlank
H0087

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc. Case No: 8709208

Lab Sample ID No: 8709208 DUBlank QC Report No:

Sample Matrix: Water Contract No: 68-01-7278

Data Release Authorized By: Rose Mangum Date Sample Received: 10/1/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 10/1/87

Date Analyzed: 10/1/87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
75-09-2	Methylene Chloride	NR
67-64-1	Acetone	NR
75-15-0	Carbon Disulfide	5 U
75-35-4	1,1-Dichloroethene	NR
75-34-3	1,1-Dichloroethane	NR
156-60-5	Trans-1,2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1,2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1,1,1-Trichloroethane	NR
56-23-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	NR
10061-02-6	Trans-1,3-Dichloropropene	NR
79-01-6	Trichloroethene	NR
124-48-1	Dibromochloromethane	NR
79-00-5	1,1,2-Trichloroethane	NR
71-43-2	Benzene	NR
10061-01-5	cis-1,3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1,1,2,2-Tetrachloroethane	NR
108-88-3	Toluene	NR
108-90-7	Chlorobenzene	NR
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the sample detection limit for the sample with the U (e.g., 10U) based on the necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read: U - Compound was analyzed for but not detected. The number is the calculated sample detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (where a 1:1 response is assumed) or when the data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

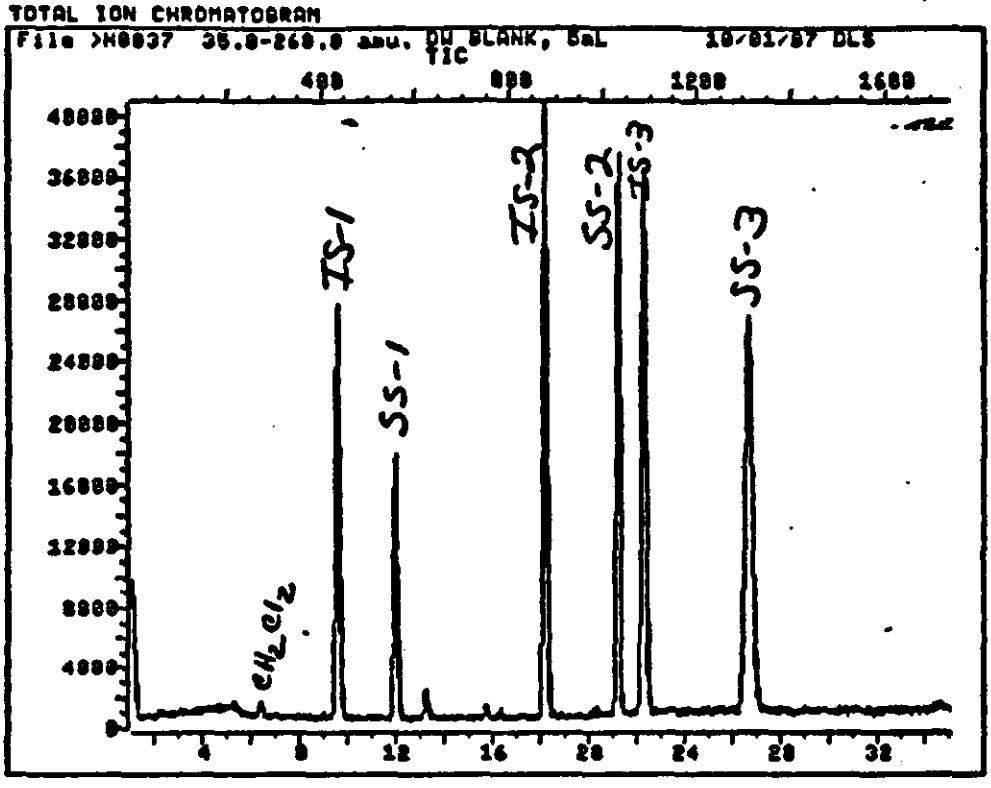
Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and placed on the data summary report.

NR not reported

AR303306

AR303306

TOTAL ION CHROMATOGRAM



Data File: >H0037::H1 Quant Output File: ^H0037::QU
Name: DW BLANK, 5mL
Misc: 10/01/87 DLS

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 524, HP 5970 'H'
Last Calibration: 870918 09:16

Operator ID: DENNIS
Quant Time: 871001 16:21
Injected at: 871001 15:45

AR303307

AR303307

ORIGINAL (Red)

QUANT REPORT

Operator ID: DENNIS Quant Rev: 6 Quant Time: 871001 16:21
Output File: *H0037::QU Injected at: 871001 15:45
Data File: >H0037::H1 Dilution Factor: 1.00000
Name: DW BLANK, 5mL
Misc: 10/01/87 DLS

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 870918 09:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	9.54	434	49141	50.00	UG/L	100
6)	METHYLENE CHLORIDE	6.28	267	816	.71	UG/L	100
6)	METHYLENE CHLORIDE	6.34	270	1447	1.12	UG/L	100
7)	ACETONE	6.86	302	1433	8.11	UG/L	100
7)	ACETONE	7.37	323	49	.28	UG/L	100
7)	ACETONE	7.41	325	157	.89	UG/L	100
13)	1,2-DICHLOROETHANE	12.06	563	770	.38	UG/L	74
14)	D4-1,2-DICHLOROETHANE (SS-1)	11.85	557	61733	87.01	UG/L	84
15)	•1,4-DIFLUOROBENZENE IS-2	10.16	875	143158	50.00	UG/L	100
23)	TRICHLOROETHENE	15.58	748	1136	.60	UG/L	96
24)	DIBROMOCHLOROMETHANE	15.24	777	423	.16	UG/L	98
26)	BENZENE	16.11	770	466	.15	UG/L	100
30)	•D5-CHLOROBENZENE IS-3	22.22	1083	119902	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	18.82	909	700	.83	UG/L	96
32)	2-HEXANONE	20.01	970	397	.70	UG/L	99
33)	TETRACHLOROETHYLENE	20.27	983	295	.18	UG/L	74
33)	TETRACHLOROETHYLENE	20.31	985	338	.21	UG/L	78
35)	D-8 TOLUENE (SS-2)	21.19	1030	130195	104.62	UG/L	82
36)	TOLUENE	21.30	1036	301	.15	UG/L	81
36)	TOLUENE	21.34	1038	235	.11	UG/L	96
39)	BROMOFLUOROBENZENE (SS-3)	26.66	1310	103326	93.06	UG/L	91

• Compound is ISTD

QUANT REPORT

Operator ID: DENNIS Quant Rev: 6 Quant Time: 871001 15:21
Output File: ^H0037::QU Injected at: 871001 15:45
Data File: >H0037::H1 Dilution Factor: 1.00000
Name: DW BLANK, 5mL
Misc: 10/01/87 DLS

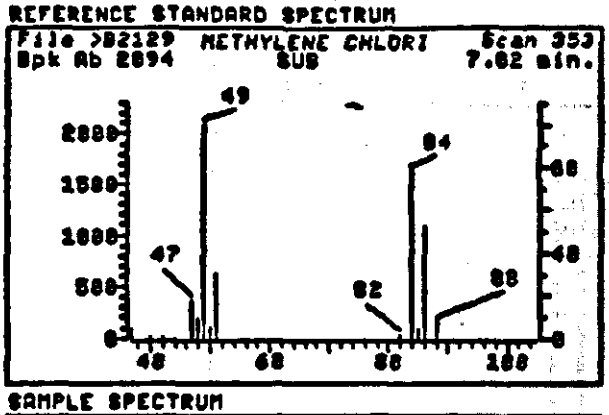
ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 870918 09:16

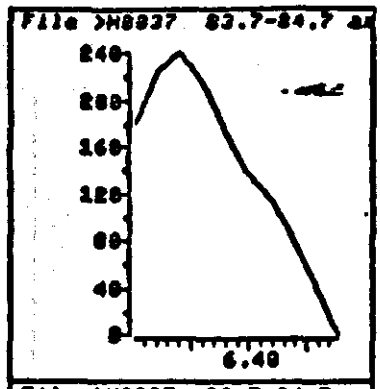
	Compound	R.T.	Scan#	Area	Conc	Units	q
6)	METHYLENE CHLORIDE	5.34	270	1447	1.12	UG/L	100
7)	ACETONE	5.96	302	1433	8.11	UG/L	100

F.P.

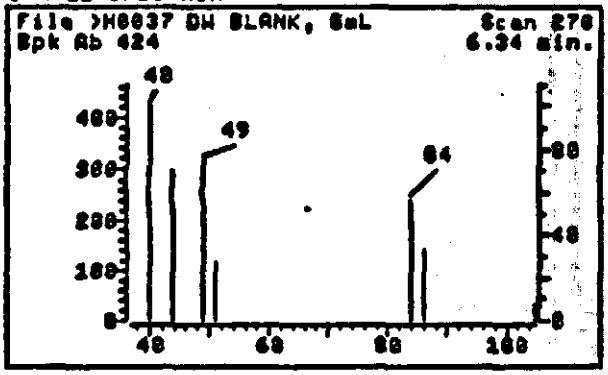
AR303309

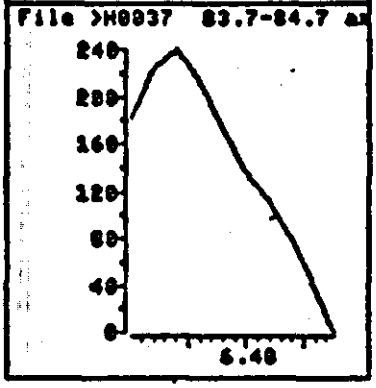
REFERENCE STANDARD SPECTRUM





SAMPLE SPECTRUM





Data File: >H0037::H1 Quant Output File: ^H0037::QU
Name: DW BLANK, 5mL
Misc: 10/01/87 DLS
Quant Time: 871001 16:21 Quant ID File: HVOAID::P1
Injected at: 871001 15:45 Last Calibration: 870918 09:16

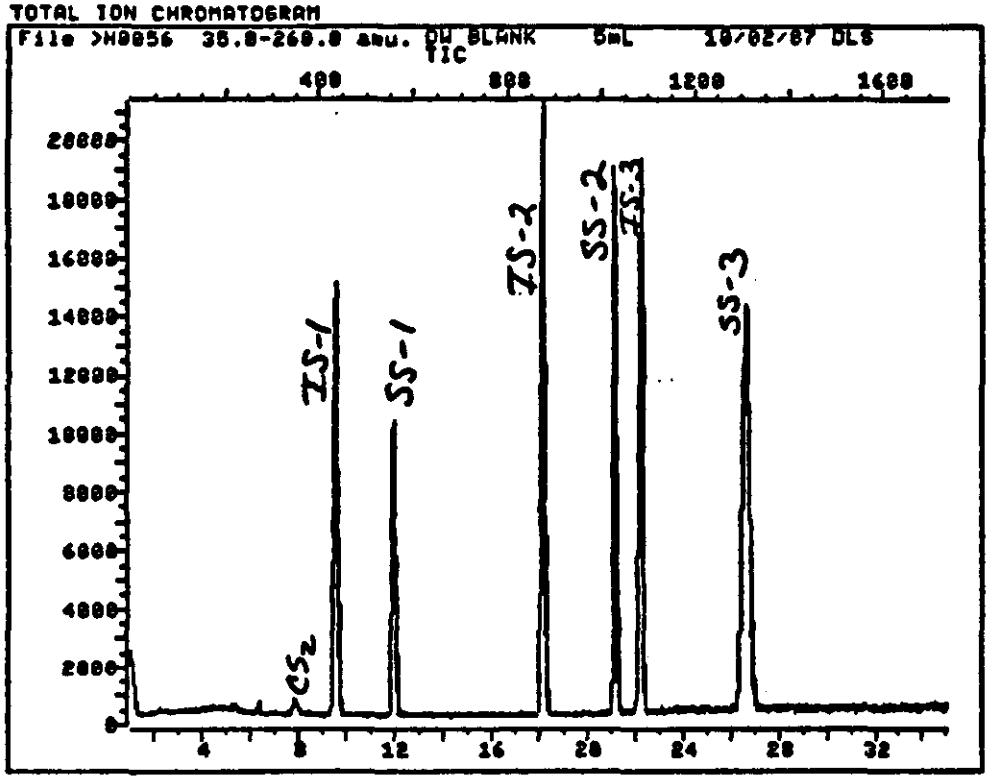
Compound No: 6
Compound Name: METHYLENE CHLORIDE
Scan Number: 270
Retention Time: 6.34 min.
Quant Ion: 84.0
Area: 1447
Concentration: 1.12 UG/L
q-value: 100

✓

AR303310

AR303310

TOTAL ION CHROMATOGRAM



Data File: >H0056::H1 Quant Output File: ^H0056::QU
Name: DW BLANK 5mL
Misc: 10/02/87 DLS

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 870918 09:16

Operator ID: ELISSA
Quant Time: 871002 15:49
Injected at: 871002 15:07

Acid SS-3

QUANT REPORT

ORIGINAL (Signed)

Operator ID: ELISSA Quant Rev: 6 Quant Time: 871007 10:45
Output File: ^H0056::QU Injected at: 871002 15:07
Data File: >H0056::H1 Dilution Factor: 1.00000
Name: DW BLANK 5mL
Misc: 10/02/87 DLS

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 871007 10:43

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	9.52	433	23684	50.00	UG/L	100
6)	METHYLENE CHLORIDE	6.28	267	232	.50	UG/L	100
6)	METHYLENE CHLORIDE	6.36	271	255	.55	UG/L	100
6)	METHYLENE CHLORIDE	6.40	273	65	.14	UG/L	100
7)	ACETONE	6.96	302	111	1.24	UG/L	100
7)	ACETONE	7.02	305	45	.50	UG/L	100
8)	CARBON DISULFIDE	7.86	348	2218	~~2.13~~	~~UG/L~~	100
8)	CARBON DISULFIDE	8.12	361	45	~~.04~~	~~UG/L~~	100
14)	D4-1,2-DICHLOROETHANE (SS-1)	11.95	557	36739	96.82	UG/L	92
15)	•1,4-DIFLUOROBENZENE IS-2	18.14	874	69838	50.00	UG/L	100
30)	•D5-CHLOROBENZENE IS-3	22.18	1081	59058	50.00	UG/L	100
35)	D-8 TOLUENE (SS-2)	21.15	1028	64103	95.81	UG/L	86
39)	BROMOFLUOROBENZENE (SS-3)	26.66	1310	54694M	98.69	UG/L	87

• Compound is ISTD

AR303312

Sample Number
DW Blank
H0168

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc. Case No: 87-10-034
Lab Sample ID No: 87-10-03 DW Blank QC Report No:
Sample Matrix: Water Contract No: 68-01-7278
Data Release Authorized By: Rona Marquis Date Sample Received: 10/2/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 10/9/87
Date Analyzed: 10/9/87
Conc/Dil Factor: 1 pH
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
75-09-2	Methylene Chloride	NR
-64-1	Acetone	NR
75-0	Carbon Disulfide	5 "
-35-4	1,1-Dichloroethene	NR
75-34-3	1,1-Dichloroethane	NR
156-60-5	Trans-1,2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1,2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1,1,1-Trichloroethane	NR
56-23-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/L or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	NR
10061-02-6	Trans-1,3-Dichloropropene	NR
79-01-6	Trichloroethene	NR
124-48-1	Dibromochloromethane	NR
79-00-5	1,1,2-Trichloroethane	NR
71-43-2	Benzene	NR
10061-01-5	cis-1,3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1,1,2,2-Tetrachloroethane	NR
108-88-3	Toluene	NR
108 90-7	Chlorobenzene	NR
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the sample detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the sample detection limit for the sample."

Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (where a 1:1 response is assumed) or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, report as 3J.

B This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/mL in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

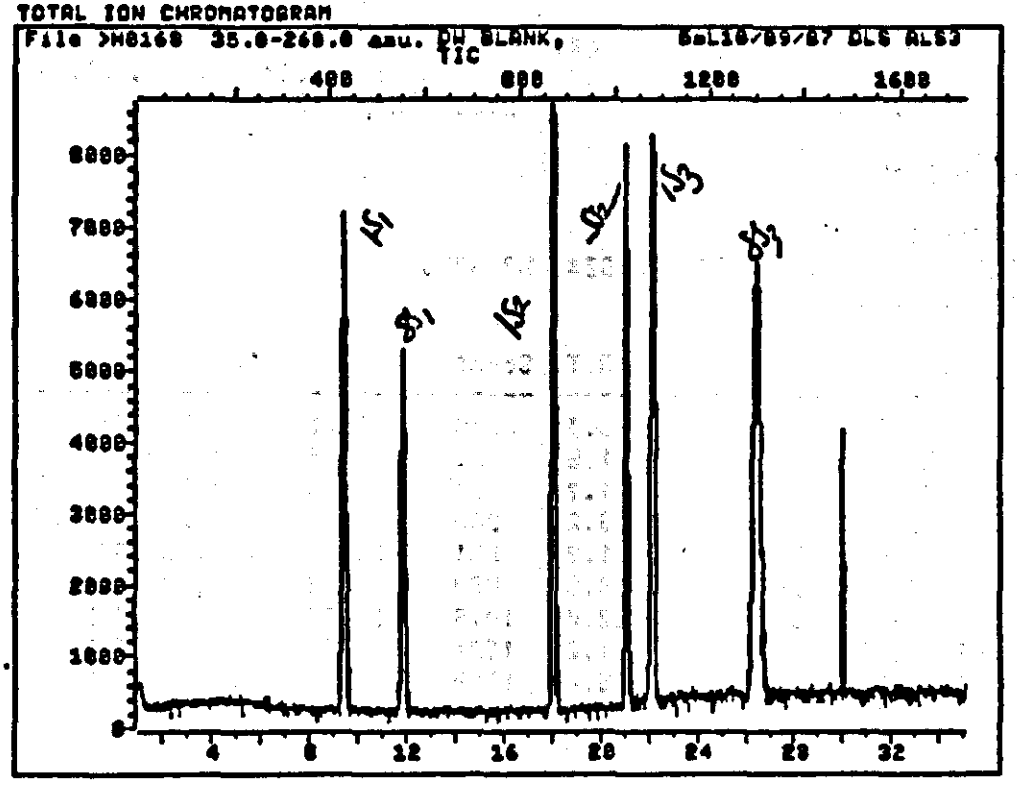
Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and placed on the data summary report.

NR not reported

AR303313

AR303313

TOTAL ION CHROMATOGRAM



Data File: >H0168::H1 Quant Output File: *H0168::QU
Name: DW BLANK, 5mL
Misc: 10/09/87 DLS AL53

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 871009 12:58

Operator ID: ELISSA
Quant Time: 871009 13:34
Injected at: 871009 12:54

AR303314

ORIGINAL (signed)

QUANT REPORT

Operator ID: ELISSA Quant Rev: 6 Quant Time: 871009 13:34
Output File: ^H0158::QU Injected at: 871009 12:54
Data File: >H0158::H1 Dilution Factor: 1.00000
Name: DW BLANK, 5mL
Misc: 10/09/87 DLS ALS3

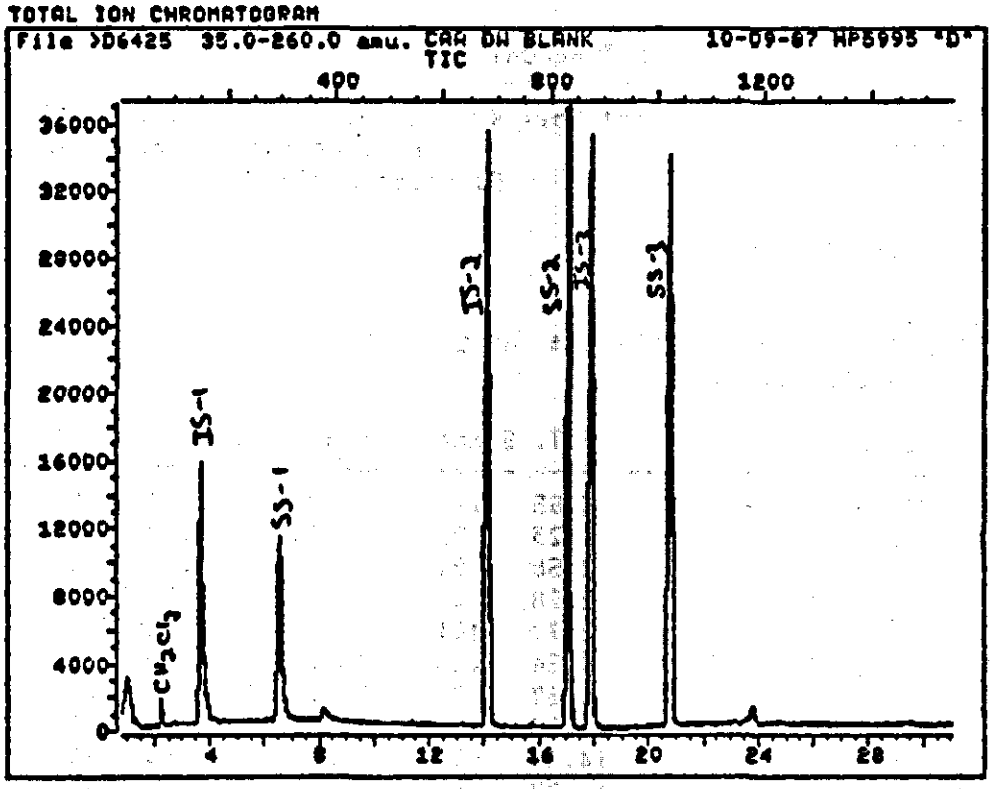
ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 871009 12:58

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	9.39	426	8071	50.00	UG/L	100
2)	CHLOROMETHANE	1.69	32	53	~~2.18 UG/L~~		100
2)	CHLOROMETHANE	1.73	34	55	~~2.26 UG/L~~		100
5)	METHYLENE CHLORIDE	6.20	263	106	~~.50 UG/L~~		100
14)	D4-1,2-DICHLOROETHANE (SS-1)	11.83	551	18828	100.56	UG/L	93
15)	•1,4-DIFLUOROBENZENE IS-2	18.02	868	22848	50.00	UG/L	100
30)	•D5-CHLOROBENZENE IS-3	22.08	1076	19969	50.00	UG/L	100
35)	D-8 TOLUENE (SS-2)	21.07	1024	22992	97.07	UG/L	80
39)	BROMOFLUOROBENZENE (SS-3)	26.44	1299	22736M	105.89	UG/L	63

• Compound is ISTD

AR303315

TOTAL ION CHROMATOGRAM



Data File: >D6425::D2
Name: CAA DW BLANK
Misc: 10-09-87 HP5995 "D" ALS.8

Id File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871014 11:47

Operator ID: MARK
Quant Time: 871014 11:49
Injected at: 871014 19:28

ORIGINAL (Red)

QUANT REPORT

Operator ID: MARK Quant Rev: 4 Quant Time: 871014 11:49
Output File: ^D6425::D2 Injected at: 871010 19:28
Data File: >D6425::D2 Dilution Factor: 1.00
Name: CAA DW BLANK
Misc: 10-09-87 HP5995 "D" ALS.8

ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871014 11:47

	Compound	R.T.	Scan#	Area	Conc	Units	q	
1)	•BROMOCHLOROMETHANE IS-1	3.65	146	26806	50.00	UG/L	87	
6)	METHYLENE CHLORIDE	2.23	73	2120	3.10	UG/L	100	✓
7)	ACETONE	2.58	91	43	.11	UG/L	100	
7)	ACETONE	2.68	36	694	1.79	UG/L	100	FP
7)	ACETONE	2.77	101	71	.18	UG/L	100	
14)	D4-1,2-DICHLOROETHANE (SS-1)	6.54	294	45914	99.10	UG/L	94	
15)	•1,4-DIFLUOROBENZENE IS-2	14.07	679	104800	50.00	UG/L	100	
30)	•D5-CHLOROBENZENE IS-3	17.88	874	83613	50.00	UG/L	100	
31)	4-METHYL-2-PENTANONE	14.34	693	365	.43	UG/L	80	
32)	2-HEXANONE	15.73	764	499	.62	UG/L	86	
35)	D-8 TOLUENE (SS-2)	17.03	831	101132	100.28	UG/L	89	
36)	TOLUENE	17.17	838	166	.11	UG/L	31	
39)	BROMOFLUOROBENZENE (SS-3)	20.77	1022	54725	99.23	UG/L	81	

• Compound is ISTD

AR303317

Sample Number
DW Blank
D6546

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc. Case No: ~~8709~~ 8710034
Lab Sample ID No: DW Blank D6546 QC Report No:
Sample Matrix: Water Contract No: 68-01-7278
Data Release Authorized By: Anne Marquis Date Sample Received: 10/20/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 10/20/87
Date Analyzed: 10/20/87
Conc/Dil Factor: 1 pH
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
[illegible]9-2	Methylene Chloride	NR
[illegible]4-1	Acetone	NR
[illegible]15-0	Carbon Disulfide	5 U
75-35-4	1,1-Dichloroethene	NR
75-34-3	1,1-Dichloroethane	NR
156-60-5	Trans-1,2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1,2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1,1,1-Trichloroethane	NR
[illegible]23-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/L or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	NR
10061-02-6	Trans-1,3-Dichloropropene	NR
79-01-6	Trichloroethene	NR
124-48-1	Dibromochloromethane	NR
79-00-5	1,1,2-Trichloroethane	NR
71-43-2	Benzene	NR
10061-01-5	cis-1,3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1,1,2,2-Tetrachloroethane	NR
108-88-3	Toluene	NR
108-90-7	Chlorobenzene	NR
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the specified detection limit for the sample with the U (e.g., 10U) based on the necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected." The number is the specified detection limit for the sample.

Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (where a 1:1 response is assumed) or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, report as 3J.

B This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/ml in the final extract should be confirmed by GC/MS.

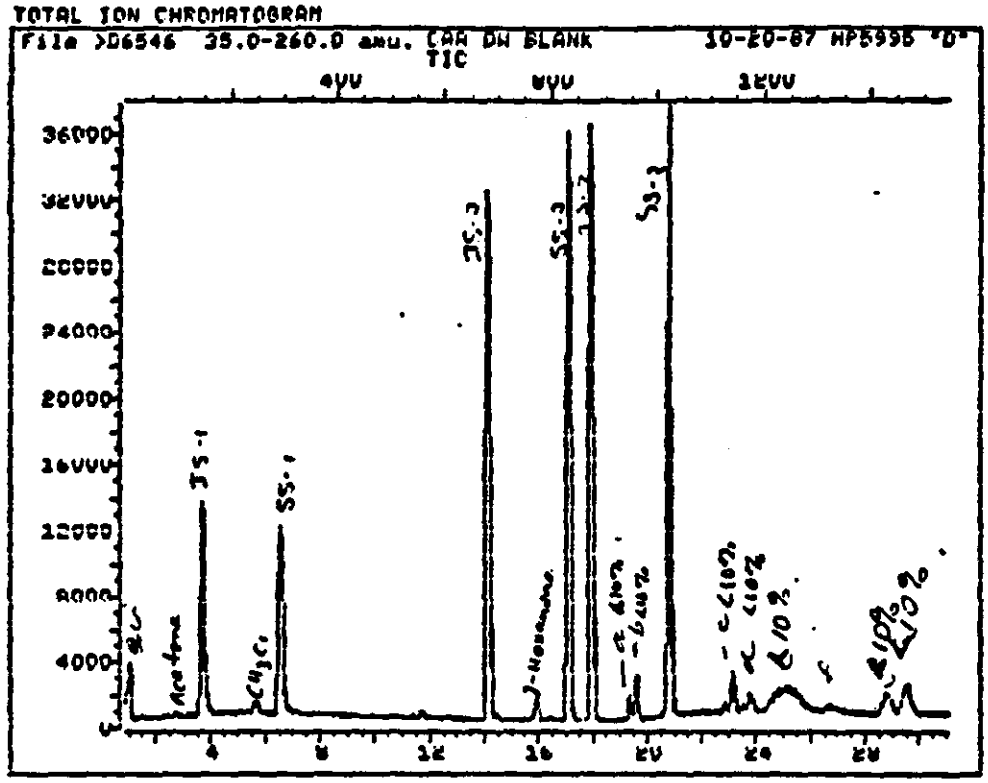
E This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and placed on the Data Summary Report.

NR not reported

AR303318

TOTAL ION CHROMATOGRAM



Data File: >D6546::D2
Name: CAA DW BLANK
Misc: 10-20-87 HP5995 "D" ALS 5 5ML5

Id File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871020 09:48

Operator ID: MANAGER
Quant Time: 871020 10:55
Injected at: 871020 10:17

ORIGINAL

QUANT REPORT

Operator ID: MANAGER Quant Rev: 4 Quant Time: 871020 10:55
Output File: "D6545::49 Injected at: 871020 10:17
Data File: >D6545::D2 Dilution Factor: 1.00
Name: CAA DW BLANK
Misc: 10-20-87 HP5995 "D" ALS 5 5ML5

ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871020 09:45

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	3.86	144	21223	50.00	UG/L	93
6)	METHYLENE CHLORIDE	2.23	71	174	.35	UG/L	100
7)	ACETONE	2.10	64	175	.71	UG/L	100
7)	ACETONE	2.43	81	168	.68	UG/L	100
7)	ACETONE	2.70	95	1241	5.01	UG/L	100
7)	ACETONE	3.08	114	178	.72	UG/L	100
7)	ACETONE	3.23	122	220	.89	UG/L	100
12)	CHLOROFORM	5.83	245	3166	2.24	UG/L	96
14)	D4-1,2-DICHLOROETHANE (SS-1)	6.53	291	46900	95.14	UG/L	92
15)	•1,4-DIFLUOROBENZENE IS-2	14.05	678	85887	50.00	UG/L	100
30)	•DS-CHLOROBENZENE IS-3	17.90	873	84069	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	14.35	653	552	.82	UG/L	95
32)	2-HEXANONE	15.75	763	1609	2.65	UG/L	89
32)	2-HEXANONE	15.91	771	1072	1.77	UG/L	72
32)	2-HEXANONE	16.11	781	76	.13	UG/L	66
34)	1,1,2,2-TETRACHLOROETHANE	15.50	750	560	.65	UG/L	91
35)	D-8 TOLUENE (SS-2)	17.66	831	83835	103.03	UG/L	93
36)	TOLUENE	17.22	638	245	.16	UG/L	63
39)	BROMOFLUOROBENZENE (SS-3)	20.78	1020	59656	103.63	UG/L	79

• Compound is ISTD

ORIGINAL (Red)

QUANT REPORT

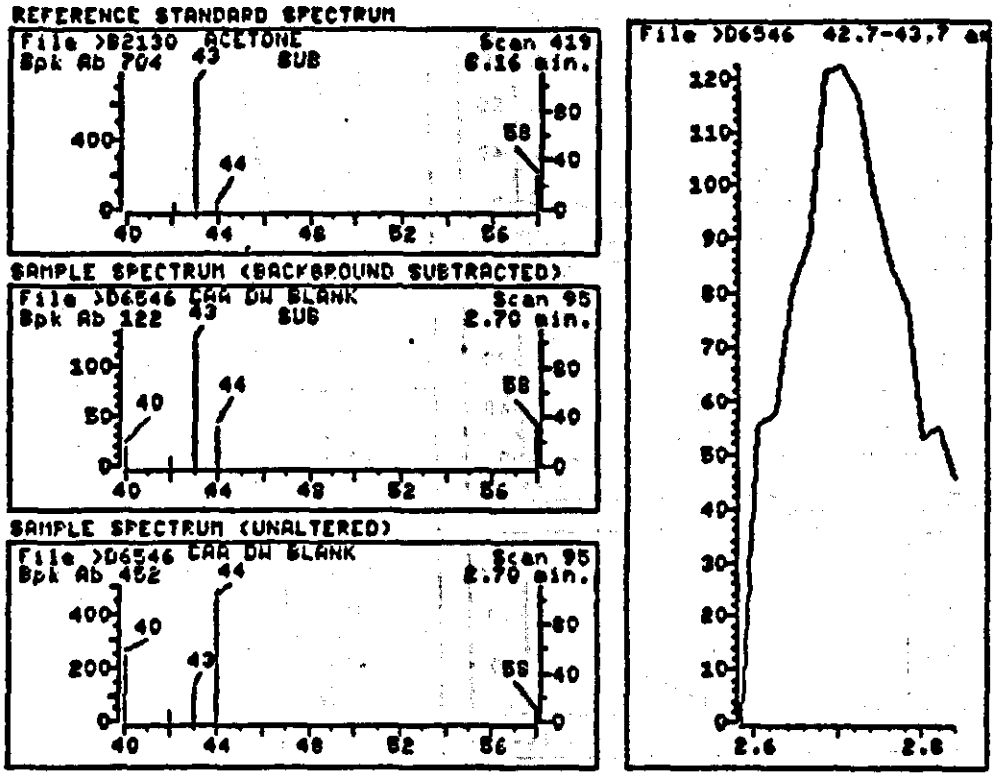
Operator ID: MANAGER Quant Rev: 4 Quant Time: 871020 10:55
Output File: ^D6546::49 Injected at: 871020 10:17
Data File: >D6546::D2 Dilution Factor: 1.00
Name: CAA DW BLANK
Misc: 10-20-87 HP5995 "D" ALS 9 5ML5

ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871020 09:49

	Compound	R.T.	Scan#	Area	Conc	Units	q
7)	ACETONE	2.70	95	1241	5.01	UG/L	100
12)	CHLOROFORM	5.63	245	3166	2.24	UG/L	96
32)	2-HEXANONE	15.75	763	1609	2.66	UG/L	89

AR303321

ORIGINAL (Red)

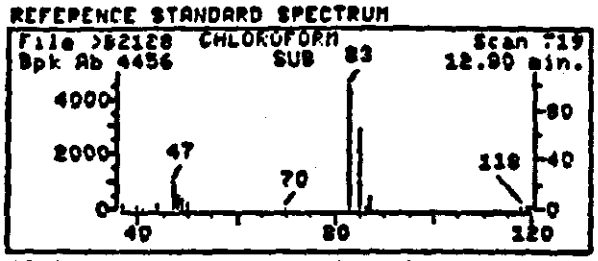


Data File: >D6546::D2
Name: CAA DW BLANK
Misc: 10-20-87 HP5995 "D" ALS 9 5MLS
Quant Time: 871020 10:55
Injected at: 871020 10:17

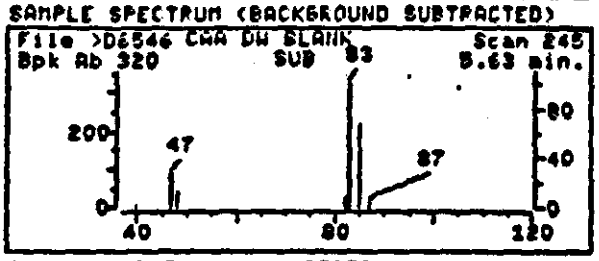
Compound No: 7
Compound Name: ACETONE
Scan Number: 85
Retention Time: 2.70 min.
Area: 1241
Concentration: 5.01 UG/L
q-value: 100

AR303322

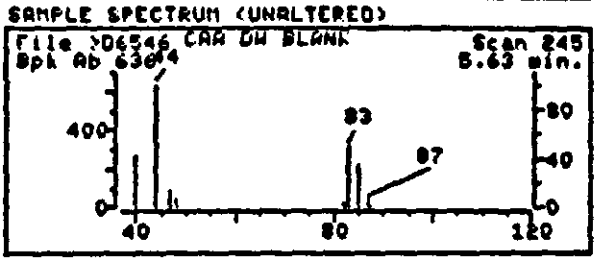
REFERENCE STANDARD SPECTRUM

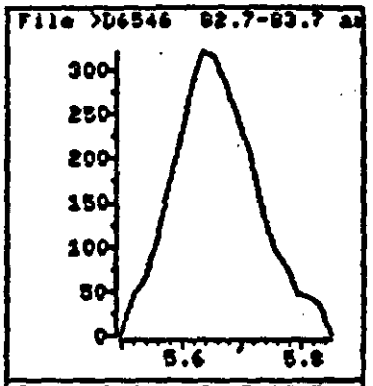


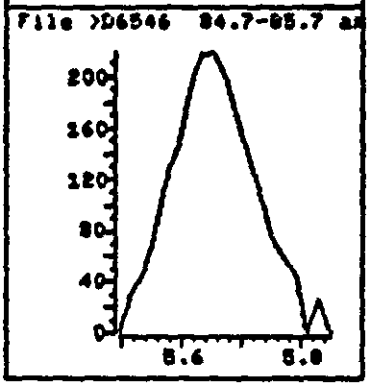
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >D6546::D2
Name: CAA DW BLANK
Misc: 10-20-87 HP5995 "D" ALS 9 5MLS
Quant Time: 871020 10:55
Injected at: 871020 10:17

Compound No: 12
Compound Name: CHLOROFORM
Scan Number: 245
Retention Time: 5.63 min.
Area: 3166
Concentration: 2.24 UG/L
q-value: 96

AR303323

Cambridge Analytical Associates

V RAW QC DATA PACKAGE

D. Matrix Spike Data

AR303324

00418

Sample Number
CL-I MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc. Case No: 87-09-172

Lab Sample ID No: 87-09-172-06 MS QC Report No:

Sample Matrix: Water Contract No: 68-01-7278

Data Release Authorized By: Rose Marquis Date Sample Received: 9/10/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 9/25/87

Date Analyzed: 9/25/87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted) N/A

CAS Number		ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
75-09-2	Methylene Chloride	NR
67-64-1	Acetone	NR
75-15-0	Carbon Disulfide	5 U / 500
75-35-4	1,1-Dichloroethene	value NR
75-34-3	1,1-Dichloroethane	NR
156-60-5	Trans-1,2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1,2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1,1,1-Trichloroethane	NR
56-23-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/L or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	NR
10061-02-6	Trans-1,3-Dichloropropene	NR
79-01-6	Trichloroethene	NR value
124-48-1	Dibromochloromethane	NR
79-00-5	1,1,2-Trichloroethane	NR
71-43-2	Benzene	NR value
10061-01-5	cis-1,3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1,1,2,2-Tetrachloroethane	NR
108-88-3	Toluene	NR value
108-90-7	Chlorobenzene	NR value
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factors. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the minimum quantitation detection limit for the sample."

Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (where a 1:1 response is assumed) or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/L and a concentration of 3 µg/L is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/µL in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such descriptions attached to the data summary report.

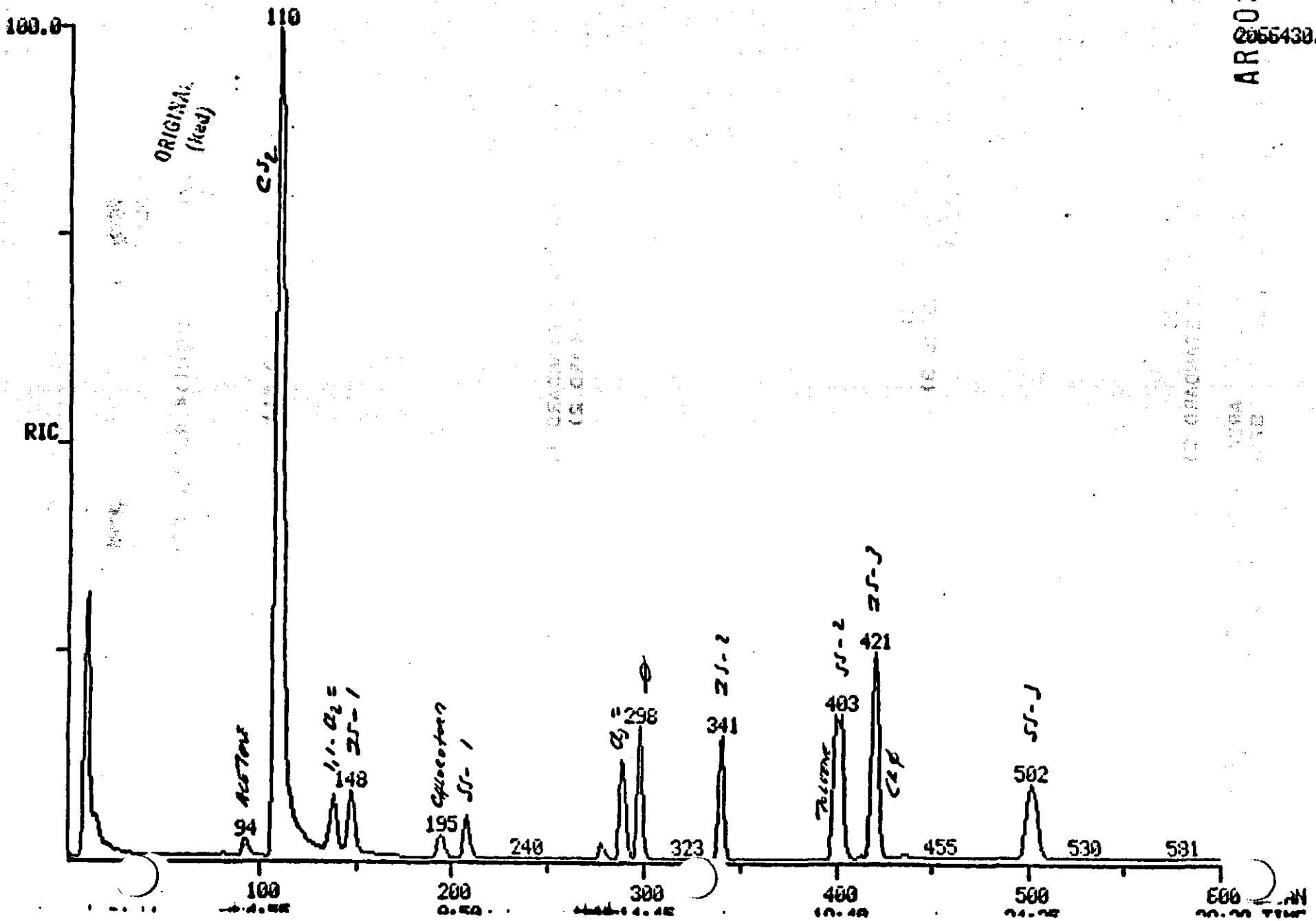
NR not reported

CR-I HS

RIC
09/25/87 17:27:00
SAMPLE: ALL 7 G&M 870917Z_06 W 5.0 mL

DATA: WATER8581 SCANS 1 TO 600

AR303326



INNIGAN ORGANICS IN WATER ANALYZER
UANTITATION REPORT FILE: WATER8581

ATA: WATER8581.TI
9/25/87 17:27:00
A E:
L TTED BY: ANALYST:

ORIGINAL (Red)

MOUNT=AREA(HGHT) * REF.AMNT/(REF.AREA(HGHT)* RESP.FACT)
ESP. FAC. FROM LIBRARY ENTRY

NO	NAME
1	BROMOCHLOROMETHANE (INTERNAL STANDARD #1)
2	CHLOROMETHANE
3	BROMOMETHANE
4	VINYL CHLORIDE
5	CHLOROETHANE
6	METHYLENE CHLORIDE
7	ACETONE
8	CARBON DISULFIDE
9	1,1-DICHLOROETHYLENE
10	1,1-DICHLOROETHANE
11	TRANS-1,2-DICHLOROETHYLENE
12	CHLOROFORM
13	1,2-DICHLOROETHANE
14	D4-1,2-DICHLOROETHANE (SURROGATE STANDARD 1)
15	1,4-DIFLUOROBENZENE (INTERNAL STANDARD 2)
16	2-BUTANONE (MEK)
17	1,1,1-TRICHLOROETHANE
18	CARBON TETRACHLORIDE
19	VINYL ACETATE
20	BROMODICHLOROMETHANE
21	1,2-DICHLOROPROPANE
22	CIS-1,3-DICHLOROPROPENE
23	TRICHLOROETHYLENE
24	DIBROMOCHLOROMETHANE
25	1,1,2-TRICHLOROETHANE
26	BENZENE
27	TRANS-1,3-DICHLOROPROPENE
28	2-CHLOROETHYL VINYL ETHER
29	BROMOFORM
30	D8-TOLUENE (SURROGATE STANDARD 2)
31	D5-CHLOROBENZENE (INTERNAL STANDARD 3)
32	4-METHYL-2-PENTANONE (MIBK)
33	2-HEXANONE (NPK)
34	TETRACHLOROETHYLENE
35	1,1,2,2-TETRACHLOROETHANE
36	TOLUENE
37	CHLOROBENZENE
38	ETHYLBENZENE
39	STYRENE
40	META-XYLENE
41	ORTHO,PARA-XYLENES
42	D8-TOLUENE (SURROGATE STANDARD 2)
43	4-BROMOFLUOROBENZENE (SURROGATE STANDARD 3)

M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT	%TOT
130	148	7:17	1	1.000	A BB	87694.	50.000 UG/L	1.61

AR303527

NO	M/E	SCAN	TIME	REF	RRT	METH	AREA(HGHT)	AMOUNT		%TOT
2	NOT FOUND									
3	NOT FOUND									
4	NOT FOUND									
5	NOT FOUND									
	84	81	3:59	1	0.547	A BB	3601.	2.088	UG/L	0.07
	43	93	4:34	1	0.628	A BB	92395.	834.378	UG/L	26.90
8	76	110	5:24	1	0.743	A BB	7044140.	1459.160	UG/L	47.04
9	96	139	6:50	1	0.939	A BB	112096.	54.418	UG/L	1.75
10	NOT FOUND									
11	NOT FOUND									
12	83	195	9:35	1	1.318	A BB	86157.	17.523	UG/L	0.56
13	NOT FOUND									
14	65	209	10:17	1	1.412	A BB	132060.	81.772	PRCNT	2.64
15	114	340	16:43	15	1.000	A BB	388534.	50.000	UG/L	1.61
16	NOT FOUND									
17	NOT FOUND									
18	NOT FOUND									
19	NOT FOUND									
20	NOT FOUND									
21	NOT FOUND									
22	NOT FOUND									
23	130	289	14:13	15	0.850	A BB	128858.	49.300	UG/L	1.59
24	NOT FOUND									
25	NOT FOUND									
26	78	298	14:39	15	0.876	A BB	466248.	48.402	UG/L	1.56
27	NOT FOUND									
28	NOT FOUND									
29	NOT FOUND									
30	98	400	19:40	15	1.176	A BB	390789.	101.606	PRCNT	3.28
3	117	420	20:39	31	1.000	A BB	347531.	50.000	UG/L	1.61
	NOT FOUND									
3	NOT FOUND									
34	NOT FOUND									
35	NOT FOUND									
36	92	403	19:49	31	0.960	A BB	243541.	47.496	UG/L	1.53
37	112	422	20:45	31	1.005	A BB	318009.	51.004	UG/L	1.64
38	NOT FOUND									
39	NOT FOUND									
40	NOT FOUND									
41	NOT FOUND									
42	98	400	19:40	31	0.952	A BB	390789.	102.156	PRCNT	3.29
43	95	503	24:44	31	1.198	A BB	318349.	102.631	PRCNT	3.31

JKNOWN SAMPLE QUANTITATION OWA REVERSE SEARCH STATUS REPORT

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 39 % OF THE LAST STANDARD RUN
COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUA

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
						**		
1	148	148	920	782	1	2	1	0
6	81	81	947	264	6	1	1	0
7	93	94	918	664	7	1	1	0
8	111	110	982	657	8	1	1	1
9	138	139	886	713	9	1	1	0
12	195	195	950	798	12	1	1	0
14	209	209	986	865	14	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 6 % OF THE LAST STANDARD RUN
COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUB

REPORT ENTRY NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
15	341	341	986	832	1	1	1	0
23	290	289	962	893	9	1	1	0
26	299	298	966	933	12	1	1	0
30	401	400	968	883	16	1	1	0

THE INTERNAL STANDARD AREA HAS A DIFFERENCE OF: 6635 % OF THE LAST STANDARD RUN
COMPOUNDS QUANTITATED BY INTERNAL STANDARD USING PARAMETERS IN LIBRARYUC

REPORT NO.	EXPECTED SCAN	BEST SCAN	FIT	PURITY	LIBRARY ENTRY NO.	PEAKS FOUND	PEAKS QUANT	SATURATED PEAKS
31	420	420	960	670	1	1	1	0
36	404	403	947	820	6	1	1	0
37	423	422	940	707	7	1	1	0
42	401	400	968	883	12	1	1	0
43	503	502	936	795	13	1	1	0

NUMBER OF COMPOUNDS IDENTIFIED 16
DATA PROCESSING OF WATER8581 COMPLETED ON 9/25/87 18:38:52

AR303329

Sample Number
GR-I MS

Rerun

Organics Analysis Data Sheet
(Page 1)

ORIGINAL (Typed)

Laboratory Name: Cambridge Analytical Assoc
Case No: 809172
Lab Sample ID No: 809172-066-S (H00611)
QC Report No:
Sample Matrix: WATER
Contract No:
Data Release Authorized By: Rose Marquis
Date Sample Received: 09/14/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 10/02/87
Date Analyzed: 10/02/87
Conc/Dil Factor: 1:10 pH
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide 1300 ppm	Soil CRQL
75-35-4	1, 1-Dichloroethene	NR
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NR
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
591-78-6	4-Methyl-2-Pentanone	
108-10-1	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

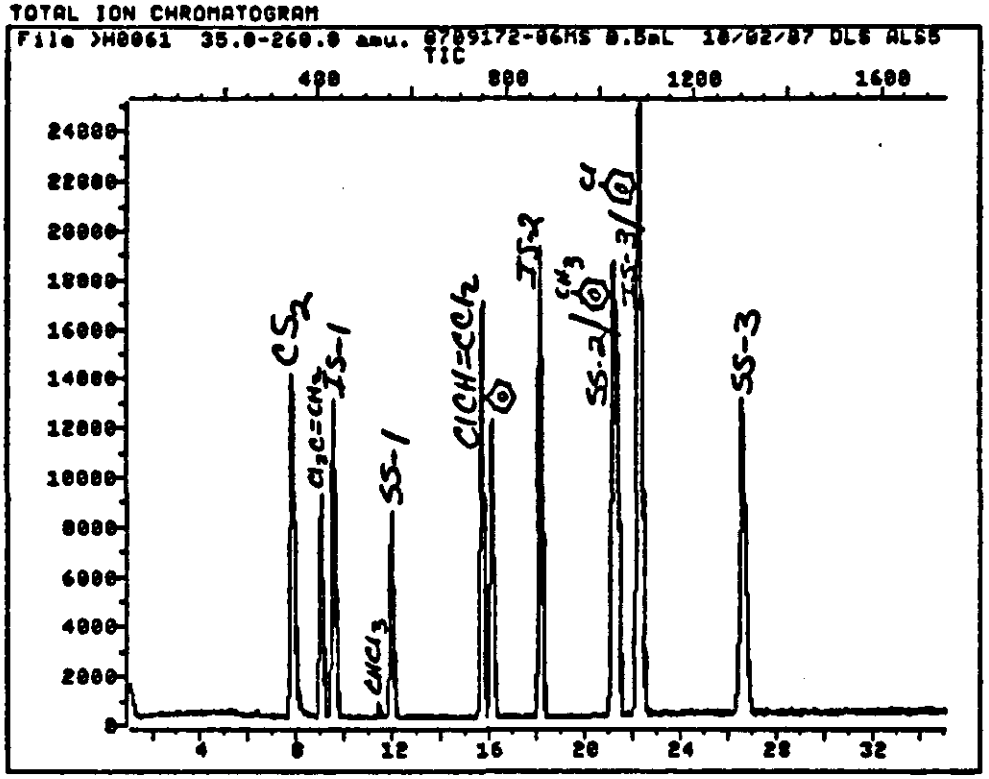
C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such documentation attached to the data summary report.

AR303330

TOTAL ION CHROMATOGRAM



Data File: >H0061::H1
Name: 8709172-06MS 0.5mL
Misc: 10/02/87 DLS ALSS

Quant Output File: ^H0061::QU

CK - I MJ

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 870918 09:16

Operator ID: DENNIS
Quant Time: 871002 19:48
Injected at: 871002 19:07

QUANT REPORT

ORIGINAL (Red)

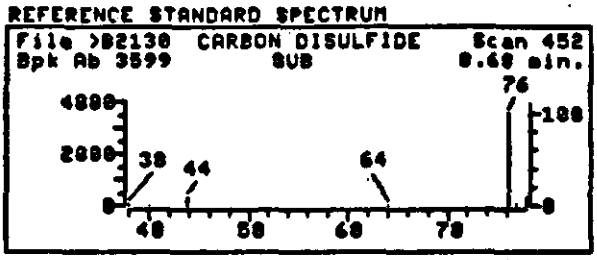
Operator ID: DENNIS Quant Rev: 6 Quant Time: 871007 10:54
Output File: ^H0061::QU Injected at: 871002 15:07
Data File: >H0061::H1 Dilution Factor: 1.00000
Name: 8709172-06MS 0.5mL
Misc: 10/02/87 DLS ALSS

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 871007 10:43

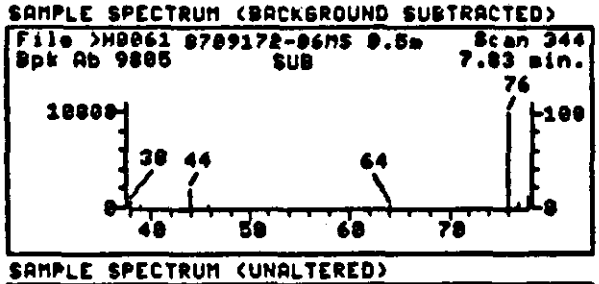
	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE IS-1	9.53	431	19855	50.00	UG/L	100
6)	METHYLENE CHLORIDE	6.22	262	48	.12	UG/L	100
6)	METHYLENE CHLORIDE	6.26	264	178	.45	UG/L	100
7)	ACETONE	6.87	300	315	4.19	UG/L	100
8)	CARBON DISULFIDE	7.83	344	109666	125.63	UG/L	100
8)	CARBON DISULFIDE	8.41	374	253	.29	UG/L	100
8)	CARBON DISULFIDE	8.47	377	256	.29	UG/L	100
9)	1,1-DICHLOROETHENE	9.04	406	15462	40.40	UG/L	98
12)	CHLOROFORM	11.40	527	2349	2.08	UG/L	98
14)	D4-1,2-DICHLOROETHANE (SS-1)	11.91	553	31217	98.14	UG/L	92
15)	*1,4-DIFLUOROBENZENE IS-2	18.12	871	61621	50.00	UG/L	100
23)	TRICHLOROETHENE	15.66	745	24223	40.27	UG/L	98
26)	BENZENE	16.05	765	43811	39.04	UG/L	100
30)	*D5-CHLOROBENZENE IS-3	22.16	1077	52731	50.00	UG/L	100
35)	D-8 TOLUENE (SS-2)	21.13	1024	58798	98.52	UG/L	86
36)	TOLUENE	21.28	1032	29680	38.12	UG/L	93
37)	CHLOROBENZENE	22.28	1083	43647	43.28	UG/L	89
39)	BROMOFLUOROBENZENE (SS-3)	26.54	1301	49729M	100.50	UG/L	

* Compound is ISTD

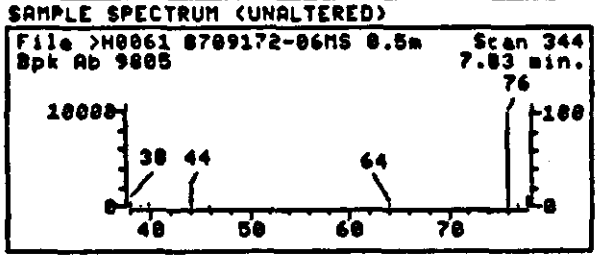
REFERENCE STANDARD SPECTRUM

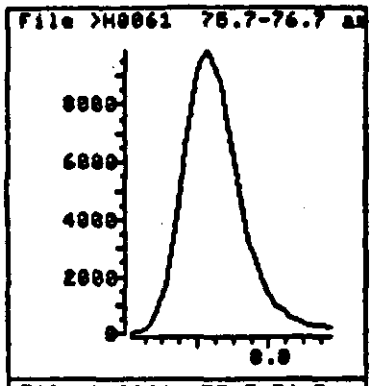


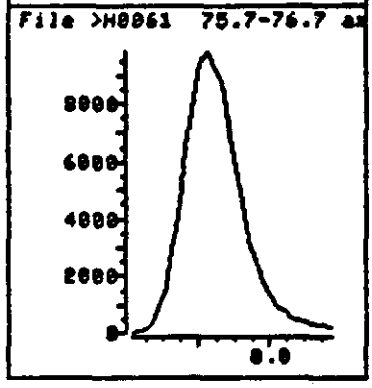
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



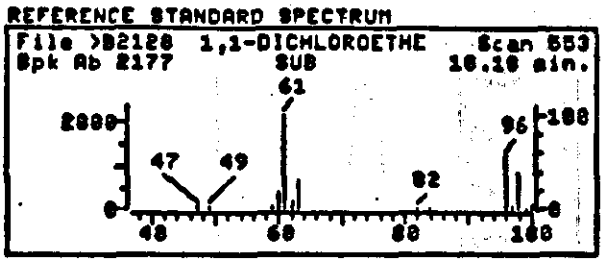




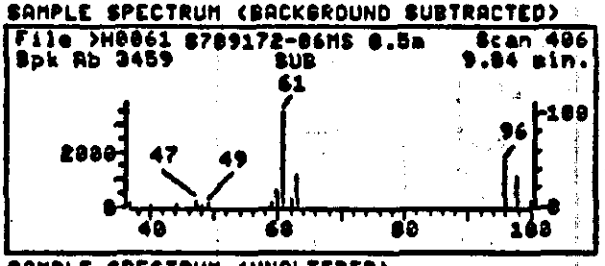
Data File: >H0061::H1 Quant Output File: ^H0061::QU
Name: 8709172-06MS 0.5mL
Misc: 10/02/87 DLS ALS5
Quant Time: 871002 19:48 Quant ID File: HVOAID::P1
Injected at: 871002 19:07 Last Calibration: 870918 09:16

Compound No: 8
Compound Name: CARBON DISULFIDE
Scan Number: 344
Retention Time: 7.83 min.
Quant Ion: 76.0
Area: 109666
Concentration: ~~25.41~~ 125.63 µg/L
q-value: 100

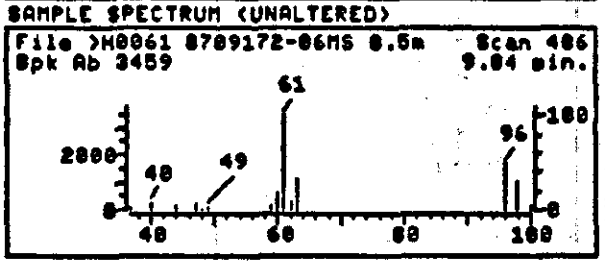
REFERENCE STANDARD SPECTRUM

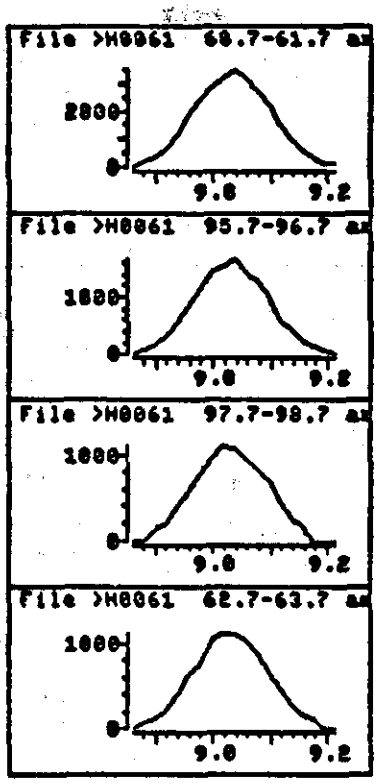


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

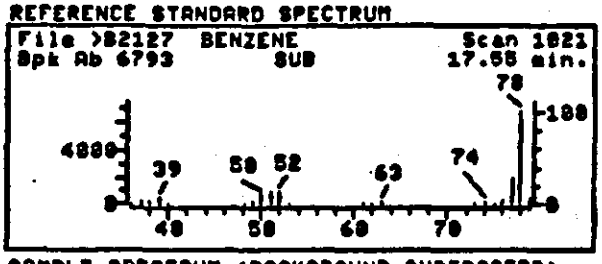




Data File: >H0061::H1 Quant Output File: ^H0061::QU
Name: 8709172-06MS 0.5mL
Misc: 10/02/87 DLS ALS5
Quant Time: 871002 19:48 Quant ID File: HVOAID::P1
Injected at: 871002 19:07 Last Calibration: 870918 09:16

Compound No: 9
Compound Name: 1,1-DICHLOROETHENE
Scan Number: 406
Retention Time: 9.04 min.
Quant Ion: 96.0
Area: 15462
Concentration: 26.20 UG/L
q-value: 98

REFERENCE STANDARD SPECTRUM



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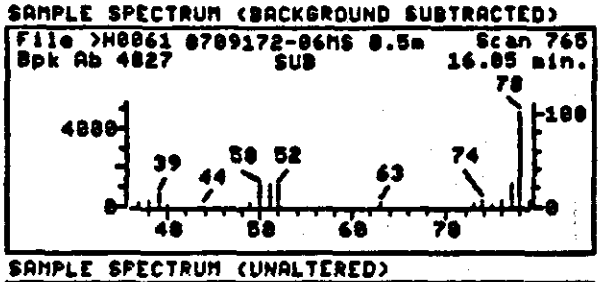

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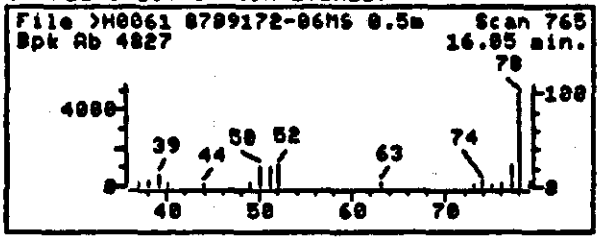
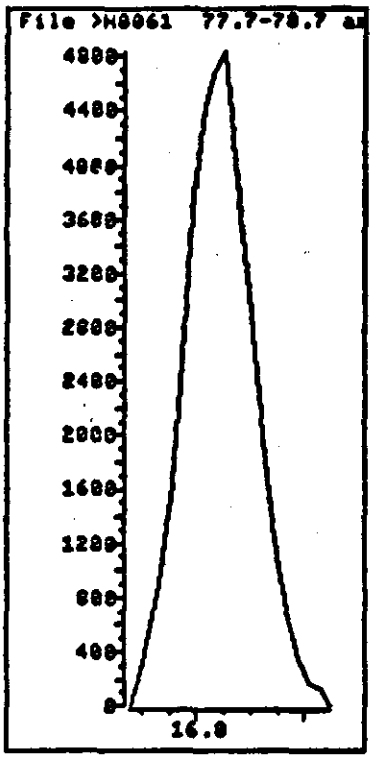




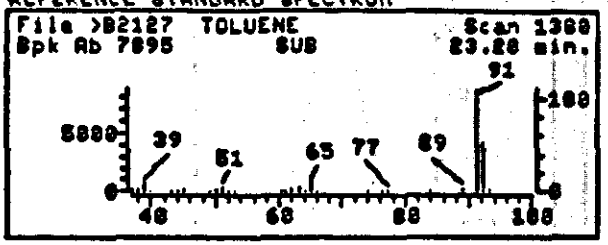
Data File: >H0061::H1
Name: 8709172-06MS 0.5mL
Misc: 10/02/87 DLS ALS5
Quant Time: 871002 19:48
Injected at: 871002 19:07

Quant Output File: ^H0061::QU

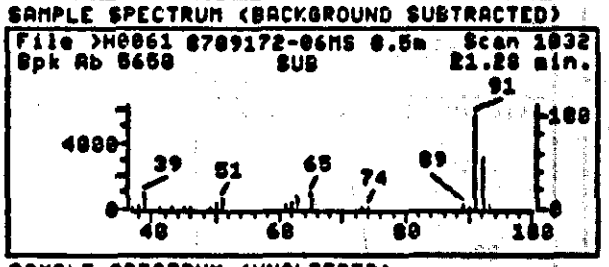
Quant ID File: HVOAID::P1
Last Calibration: 870918 09:16

Compound No: 26
Compound Name: BENZENE
Scan Number: 765
Retention Time: 16.05 min.
Quant Ion: 78.0
Area: 43811
Concentration: 31.82 UG/L
q-value: 100

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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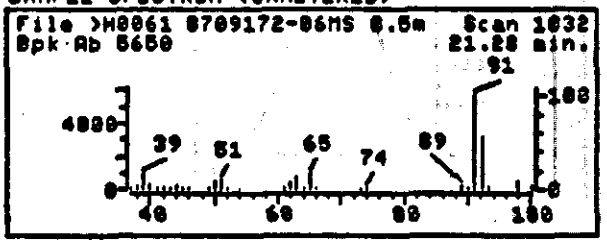
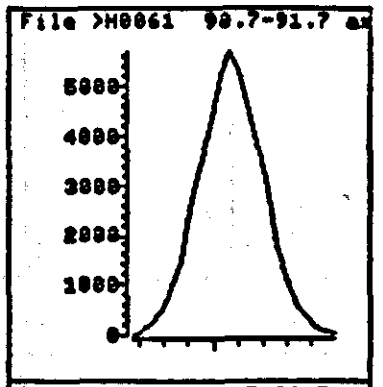
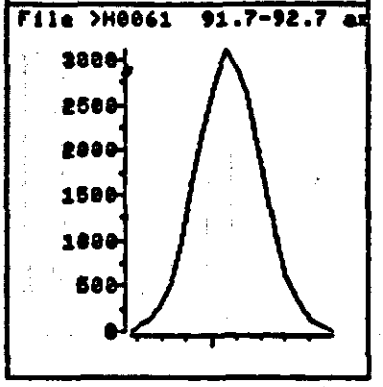






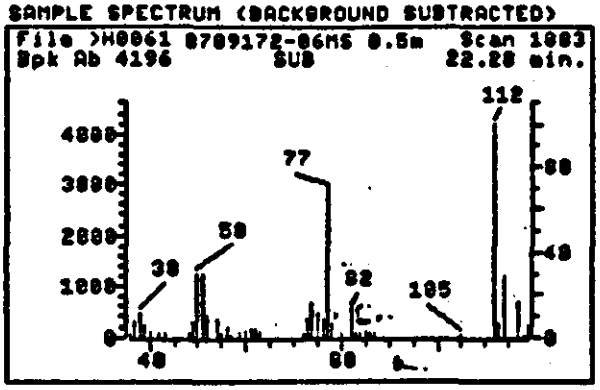
Data File: >H0061::H1
Name: 8709172-06MS 0.5mL
Misc: 10/02/87 DLS ALSS
Quant Time: 871002 19:48
Injected at: 871002 19:07

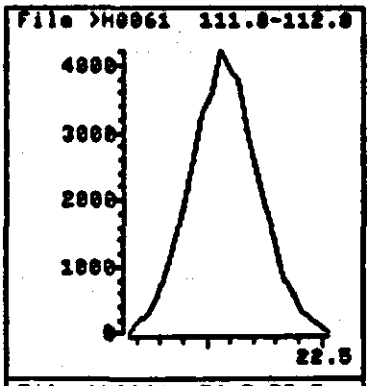
Quant Output File: ^H0061::QU

Quant ID File: HVOAID::P1
Last Calibration: 870918 09:16

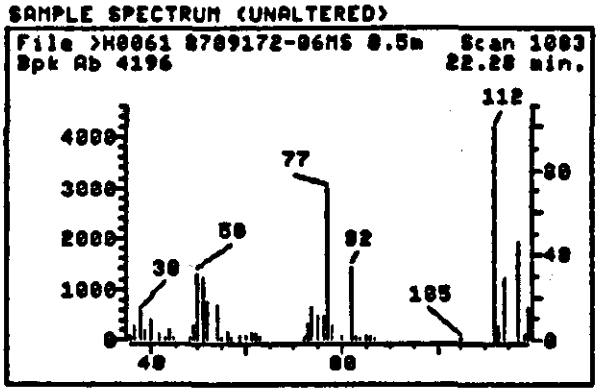
Compound No: 36
Compound Name: TOLUENE
Scan Number: 1032
Retention Time: 21.28 min.
Quant Ion: 92.0
Area: 29680
Concentration: 32.98 UG/L
q-value: 93

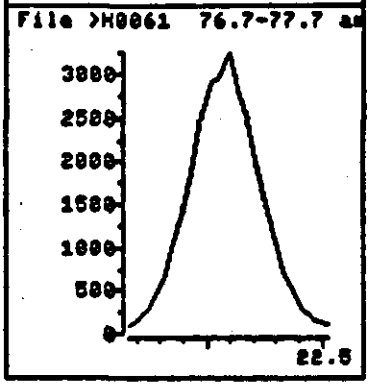
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





ORIGINAL

Data File: >H0061::H1
Name: 8709172-06MS 0.5mL
Misc: 10/02/87 DLS ALS5
Quant Time: 871002 19:48
Injected at: 871002 19:07

Quant Output File: ^H0061::QU

Quant ID File: HVOAID::P1
Last Calibration: 870918 09:16

Compound No: 37
Compound Name: CHLOROBENZENE
Scan Number: 1083
Retention Time: 22.28 min.
Quant Ion: 112.1
Area: 43647
Concentration: 35.45 UG/L
q-value: 89

✓

Sample Number
SD2 - ENS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc. Case No: 8709207

Lab Sample ID No: 8709207-04MS QC Report No:

Sample Matrix: Water Contract No: 68-01-7278

Data Release Authorized By: Kona Marquis Date Sample Received: 9/21/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 10/1/87

Date Analyzed: 10/1/87

Conc/Dil Factor: 1:10 pH

Percent Moisture: (Not Decanted) N/A

CAS Number		ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
75-09-2	Methylene Chloride	NR
67-64-1	Acetone	NR
75-15-0	Carbon Disulfide	2700
75-35-4	1,1-Dichloroethene	NR
75-34-3	1,1-Dichloroethane	NR
156-60-5	Trans-1,2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1,2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1,1,1-Trichloroethane	NR
56-23-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/L or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	NR
10061-02-6	Trans-1,3-Dichloropropene	NR
79-01-6	Trichloroethene	NR
124-48-1	Dibromochloromethane	NR
79-00-5	1,1,2-Trichloroethane	NR
71-43-2	Benzene	NR
10061-01-5	cis-1,3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1,1,2,2-Tetrachloroethane	NR
108-88-3	Toluene	NR
108-90-7	Chlorobenzene	NR
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be supplied.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the specified detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The laboratory should treat U-Compound was analyzed for but not detected. The number is the specified detection limit for the sample.

Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (where a 1:1 response is assumed) or when the data system finds and calculates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/L and a concentration of 2 ug/L is calculated, report as 2J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml on the final extract should be confirmed by GC/MS.

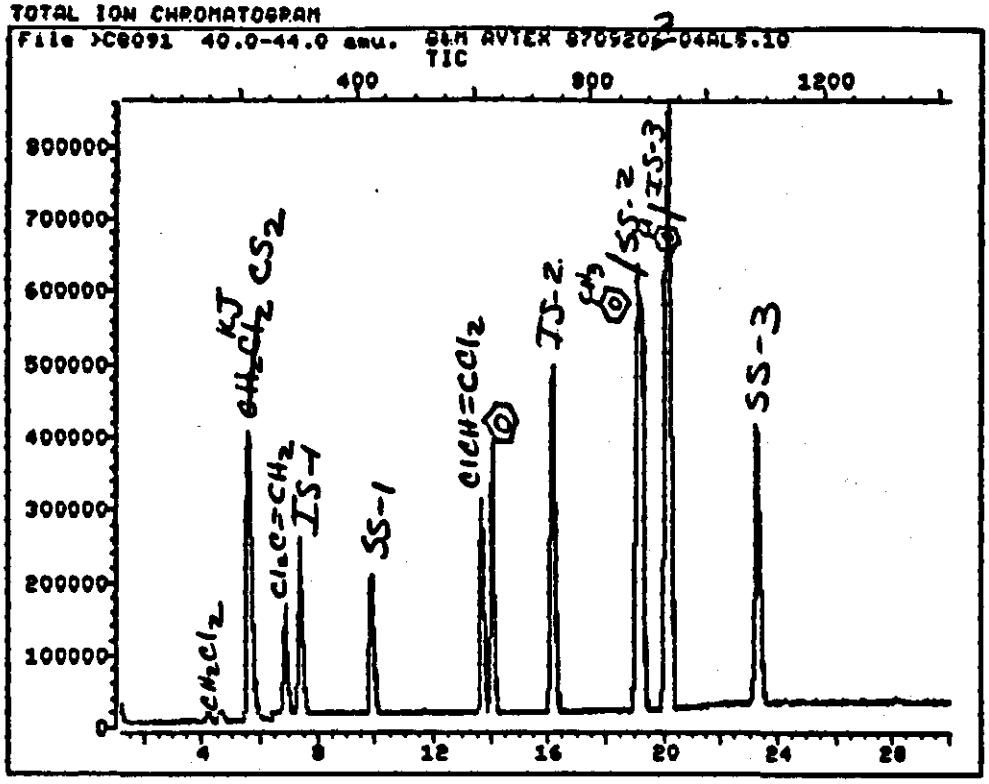
B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and helps the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

AR303338

NR not reported

TOTAL ION CHROMATOGRAM



Data File: >C8091::UP 3
Name: G&M AVTEX 870920-04 MS
Misc: ALS.10

S2-E MS

1.10

Id File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)
Last Calibration: 871001 16:19

Operator ID:
Quant Time: 871002 09:48
Injected at: 871001 23:21

1.10

QUANT REPORT

Operator ID: Quant Rev: 4 Quant Time: 871002 09:48
Output File: ^C8091::P3 Injected at: 871001 23:21
Data File: >C8091::UP Dilution Factor: 1.00
Name: 6&M AVTEX 8709206-04
Misc: ALS.10

ORIGINAL (Red)

ID File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)
Last Calibration: 871001 16:19

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	7.38	304	486344	50.00	UG/L	100
6)	METHYLENE CHLORIDE	4.25	150	22290	6.04	UG/L	100
8)	CARBON DISULFIDE	5.59	216	3260114	273.89	UG/L	98
9)	1,1-DICHLOROETHENE	6.85	278	299488	26.36	UG/L	91
14)	D4-1,2-DICHLOROETHANE (SS-1)	9.87	427	625176	97.36	UG/L	93
15)	•1,4-DIFLUOROBENZENE IS-2	16.15	736	1811716	50.00	UG/L	100
23)	TRICHLOROETHENE	13.67	614	475079	37.28	UG/L	93
26)	BENZENE	14.04	632	1356384	37.60	UG/L	100
30)	•D5-CHLOROBENZENE IS-3	20.07	929	1806026	50.00	UG/L	100
35)	D-8 TOLUENE (SS-2)	19.09	881	1852918	104.95	UG/L	90
36)	TOLUENE	19.24	888	1050082	35.24	UG/L	97
37)	CHLOROBENZENE	20.18	934	1553307	39.19	UG/L	89
39)	BROMOFLUOROBENZENE (SS-3)	23.27	1086	1022081	100.76	UG/L	90

• Compound is ISTD

QUANT REPORT

Operator ID: Quant Rev: 4 Quant Time: 871002 09:48
Output File: ^C8091::P3 Injected at: 871001 23:21
Data File: >C8091::UP Dilution Factor: 1.00
Name: G&M AVTEX 8709206-04
Misc: ALS.10

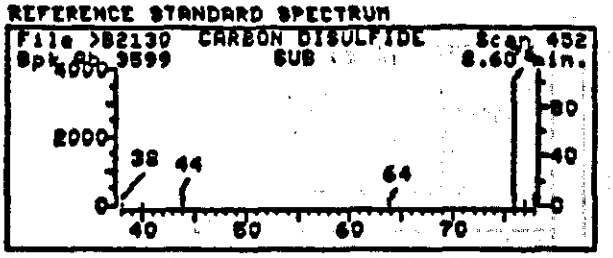
ID File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)
Last Calibration: 871001 16:19

	Compound	R.T.	Scan#	Area	Conc	Units	q
6)	METHYLENE CHLORIDE	4.25	150	22290	5.04	UG/L	100
8)	CARBON DISULFIDE	5.59	216	3260114	273.89	UG/L	98
9)	1,1-DICHLOROETHENE	6.85	278	299488	25.36	UG/L	91
23)	TRICHLOROETHENE	13.67	614	475079	37.28	UG/L	93
26)	BENZENE	14.04	632	1356384	37.60	UG/L	100
36)	TOLUENE	19.24	888	1050082	35.24	UG/L	97
37)	CHLOROBENZENE	20.18	934	1553307	39.19	UG/L	89

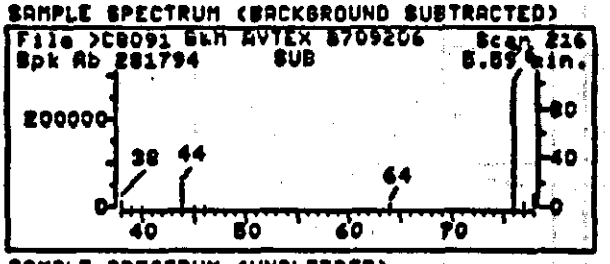
ORIGINAL

AR303341

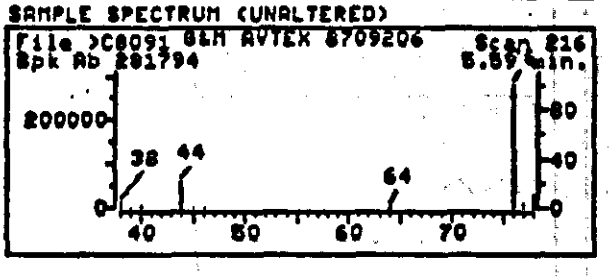
REFERENCE STANDARD SPECTRUM

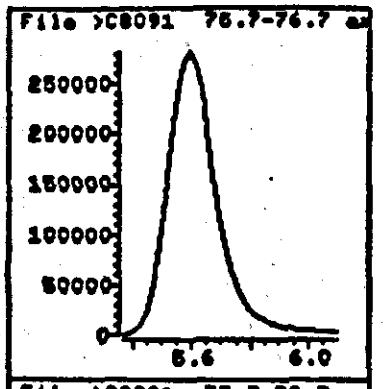


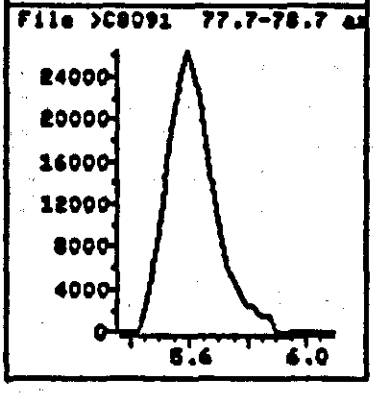
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





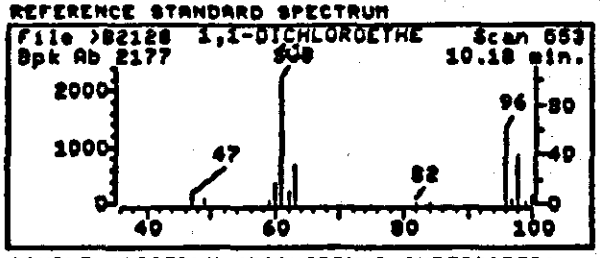


Data File: >C8091::UP
Name: G&M AVTEX 8709206-04
Misc: ALS.10
Quant Time: 871002 09:48
Injected at: 871001 23:21

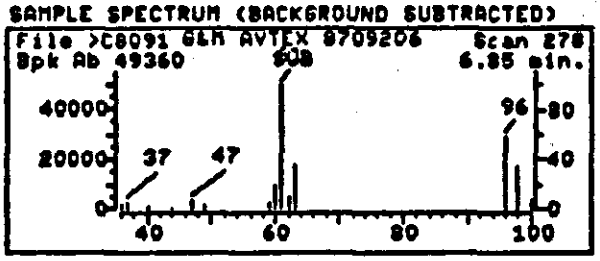
Compound No: 8
Compound Name: CARBON DISULFIDE
Scan Number: 216
Retention Time: 5.59 min.
Area: 3260114
Concentration: 273.89 UG/L
q-value: 98

AR303342

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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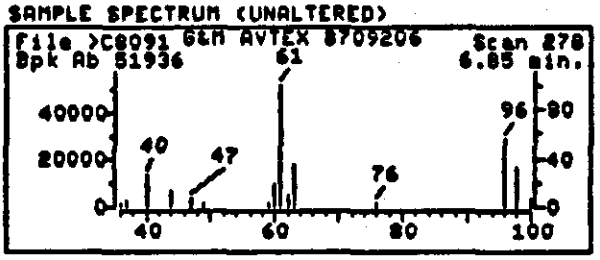
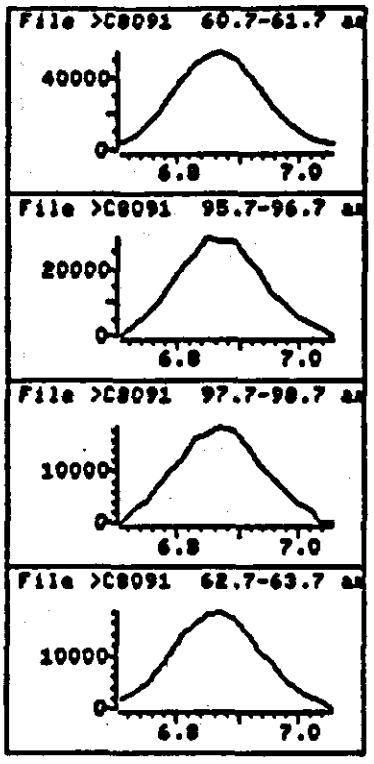


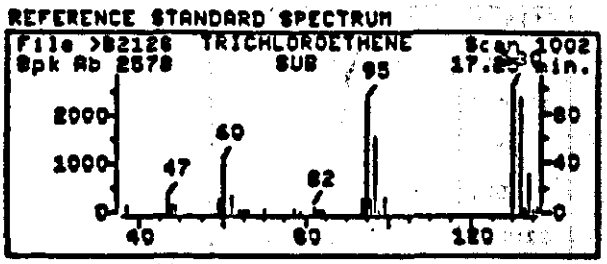


Data File: >C8091::UP
Name: G&M AVTEX 8709206-04
Misc: ALS.10
Quant Time: 871002 09:48
Injected at: 871001 23:21

Compound No: 9
Compound Name: 1,1-DICHLOROETHENE
Scan Number: 278
Retention Time: 6.85 min.
Area: 299488
Concentration: 26.36 UG/L
q-value: 91

AR303343

REFERENCE STANDARD SPECTRUM



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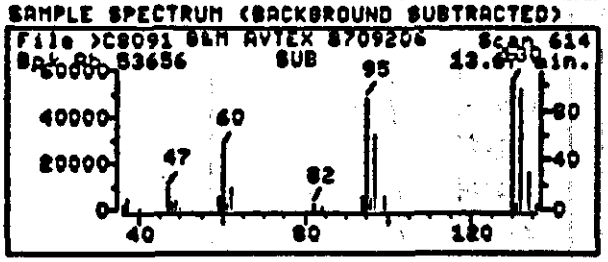

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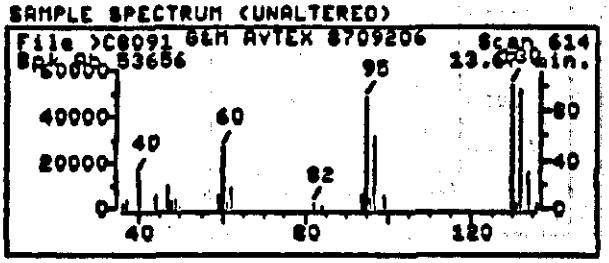
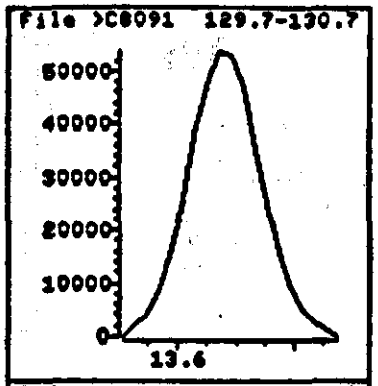
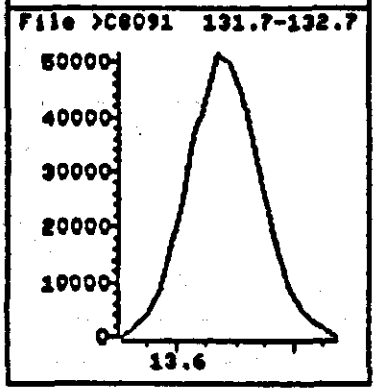




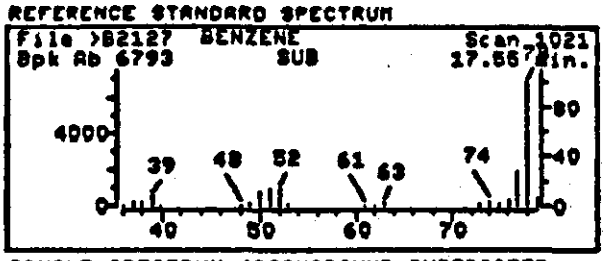


Data File: >C8091::UP
Name: 68M AVTEX 8709206-04
Misc: ALS.10
Quant Time: 871002 09:48
Injected at: 871001 23:21

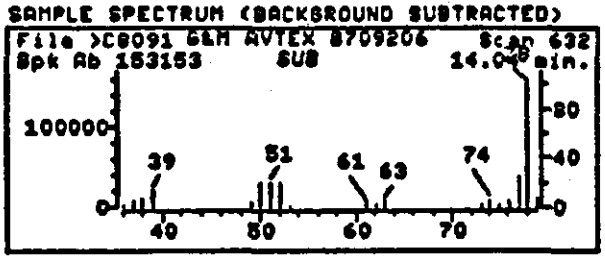
Compound No: 23
Compound Name: TRICHLOROETHENE
Scan Number: 614
Retention Time: 13.67 min.
Area: 475079
Concentration: 37.28 UG/L
q-value: 93

AR303344

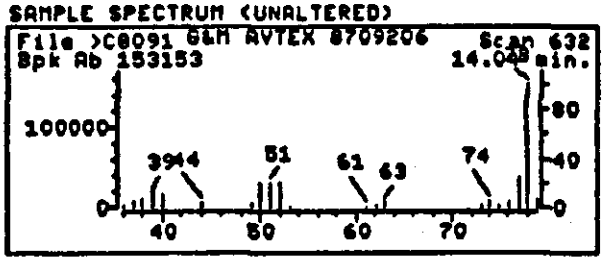
REFERENCE STANDARD SPECTRUM

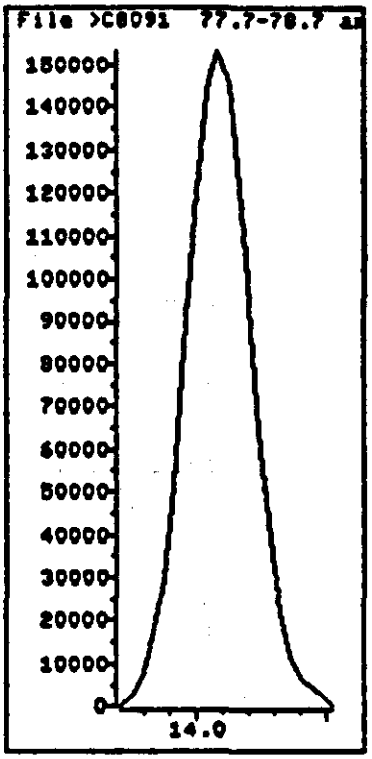


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





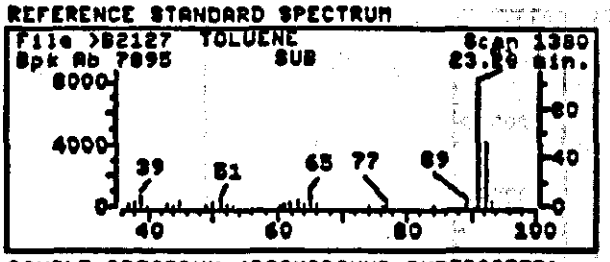
ORIGINAL (1 of 1)

Data File: >C8091::UP
Name: G&M AVTEX 8709206-04
Misc: ALS.10
Quant Time: 871002 09:48
Injected at: 871001 23:21

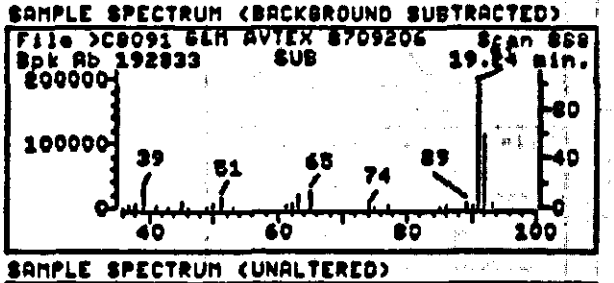
Compound No: 26
Compound Name: BENZENE
Scan Number: 632
Retention Time: 14.04 min.
Area: 1356384
Concentration: 37.60 UG/L
q-value: 100

AR303345

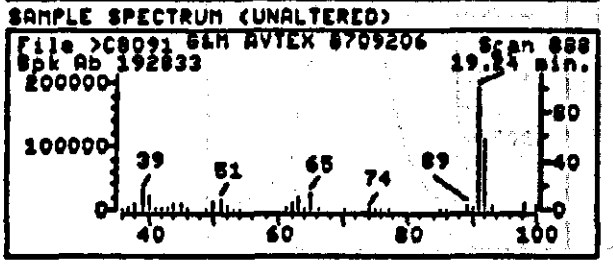
REFERENCE STANDARD SPECTRUM

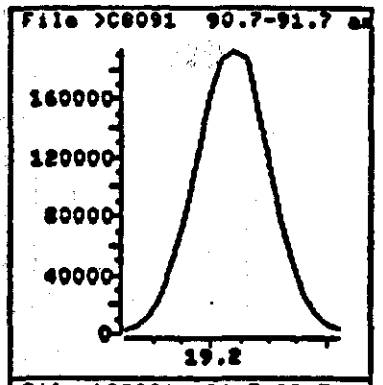


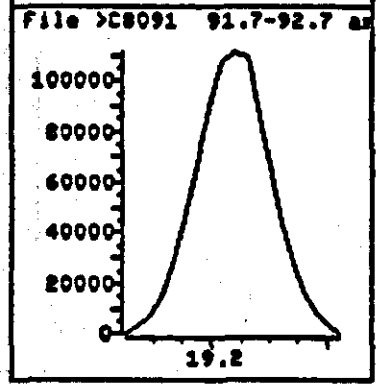
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





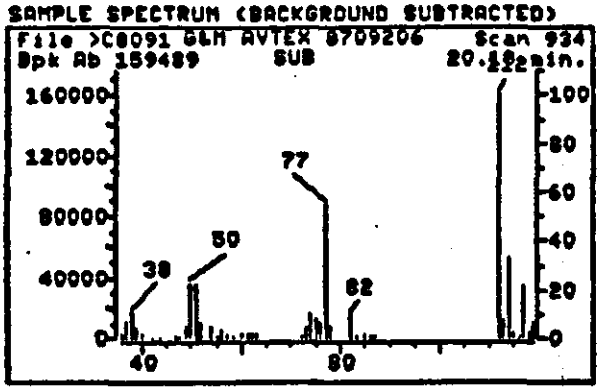


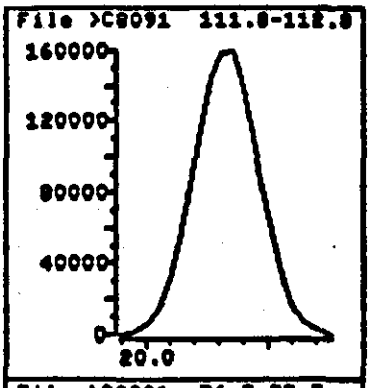
ORIGINAL (Red)

Data File: >C8091::UP
Name: G&M AVTEX 8709206-04
Misc: ALS.10
Quant Time: 871002 09:48
Injected at: 871001 23:21

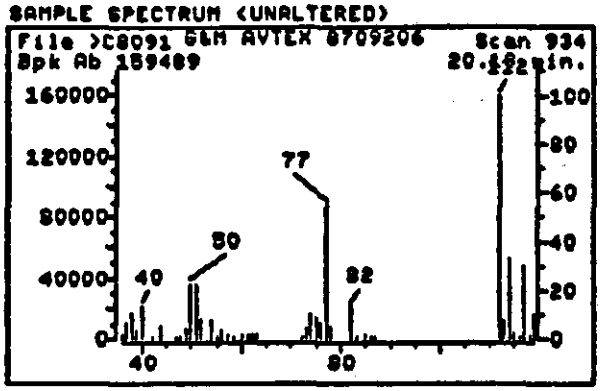
Compound No: 36
Compound Name: TOLUENE
Scan Number: 888
Retention Time: 19.24 min.
Area: 1050082
Concentration: 35.24 UG/L
q-value: 97

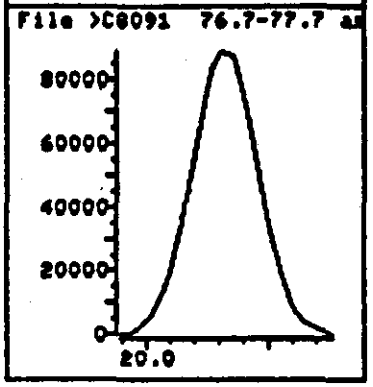
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





Data File: >C8091::UP
Name: G&M AVTEX 8709206-04
Misc: ALS.10
Quant Time: 871002 09:48
Injected at: 871001 23:21

Compound No: 37
Compound Name: CHLOROBENZENE
Scan Number: 934
Retention Time: 20.18 min.
Area: 1553307
Concentration: 39.19 UG/L
q-value: 89

ORIGINAL (2ed)

AR303347

Sample Number
SC-E MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc. Case No: 8709208

Lab Sample ID No: 8709208-01MS QC Report No:

Sample Matrix: Water Contract No: 68-01-7278

Data Release Authorized By: Rona Marquis Date Sample Received: 9/24/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 10/1/87

Date Analyzed: 10/1/87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
09-2	Methylene Chloride	NR
64-1	Acetone	NR
75-15-0	Carbon Disulfide 3700	5DE 3701
75-35-4	1,1-Dichloroethene	NR spike
75-34-3	1,1-Dichloroethane	NR
156-60-5	Trans-1,2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1,2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1,1,1-Trichloroethane	NR
56-23-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	NR
10061-02-6	Trans-1,3-Dichloropropene	NR
79-01-6	Trichloroethene	NR spike
124-48-1	Dibromochloromethane	NR
79-00-5	1,1,2-Trichloroethane	NR
71-43-2	Benzene	NR spike
10061-01-5	cis-1,3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR spike
591-78-6	2-Hexanone	NR spike
127-18-4	Tetrachloroethene	NR
79-34-5	1,1,2,2-Tetrachloroethane	NR
108-88-3	Toluene	NR
108-90-7	Chlorobenzene	NR
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be supplied.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the detection limit for the sample.

Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (where a 1:1 response is assumed) or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/ml in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and their application described in the data summary report.

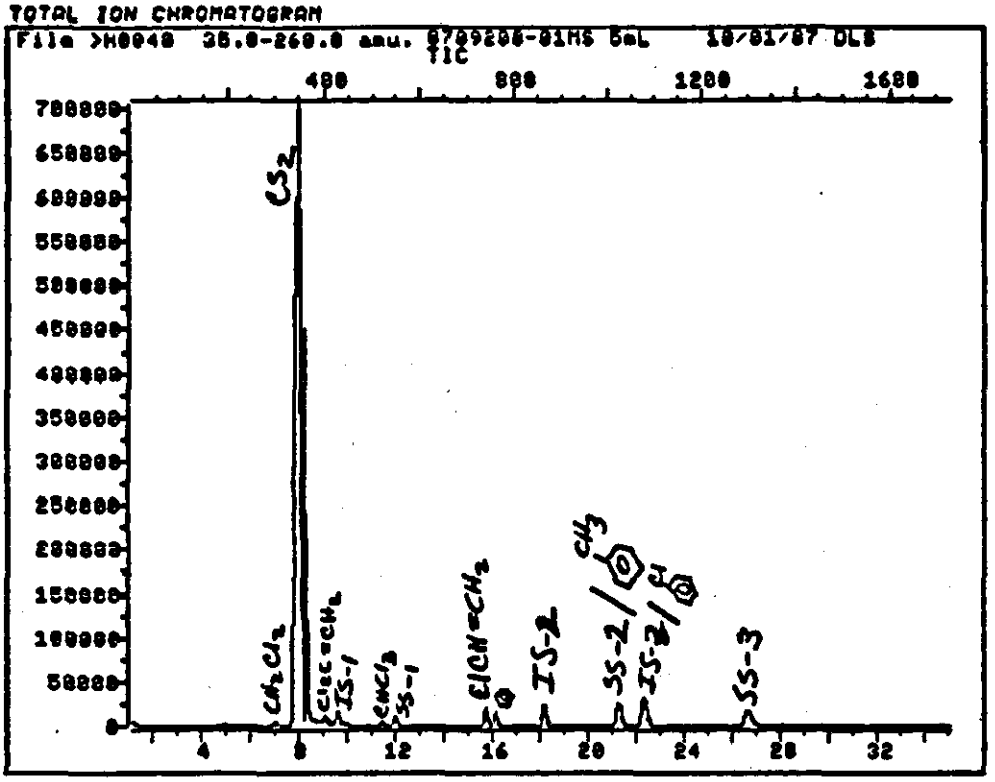
NR not reported

AR303348

AR303348

ORIGINAL (Red)

TOTAL ION CHROMATOGRAM



Data File: >H0040::H1
Name: 8709208-01MS 5mL
Misc: 10/01/87 DLS

Quant Output File: ^H0040::QU

SC - E MS

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 870918 09:16

Operator ID: DENNIS
Quant Time: 871001 18:57
Injected at: 871001 18:16

Rerun 1:100

ORIGINAL (red)

QUANT REPORT

Operator ID: DENNIS Quant Rev: 6 Quant Time: 871001 18:57
Output File: ^H0040::QU Injected at: 871001 18:16
Data File: >H0040::H1 Dilution Factor: 1.00000
Name: 8709208-01MS 5mL
Misc: 10/01/87 DLS

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 870918 09:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	8.56	425	23810	50.00	UG/L	100
6)	METHYLENE CHLORIDE	6.32	266	1329	2.11	UG/L	100
7)	ACETONE	7.00	301	14373	167.83	UG/L	100
7)	ACETONE	7.27	315	200	2.34	UG/L	100
7)	ACETONE	7.43	323	194	2.27	UG/L	100
8)	CARBON DISULFIDE	8.00	352	6447103M	3746.01	UG/L	100
8)	CARBON DISULFIDE	8.19	355	1219773	708.73	UG/L	100
9)	1,1-DICHLOROETHENE	9.09	401	17880	25.27	UG/L	95
12)	CHLOROFORM	11.42	520	13239	7.50	UG/L	95
14)	D4-1,2-DICHLOROETHANE (SS-1)	11.96	548	35285	102.65	UG/L	92
15)	•1,4-DIFLUOROBENZENE IS-2	18.14	864	83532	50.00	UG/L	100
16)	2-BUTANONE (MEK)	11.93	546	72	3.17	UG/L	4
16)	2-BUTANONE (MEK)	11.96	548	120	5.29	UG/L	22
23)	TRICHLOROETHENE	15.68	738	32177	29.10	UG/L	97
26)	BENZENE	16.07	758	57150	30.62	UG/L	100
26)	BENZENE	16.42	776	87	.05	UG/L	100
30)	•DS-CHLOROBENZENE IS-3	22.22	1073	71522	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	18.78	897	1095	2.44	UG/L	90
35)	D-8 TOLUENE (SS-2)	21.17	1019	78907	106.29	UG/L	83
36)	TOLUENE	21.30	1026	40489	33.17	UG/L	97
37)	CHLOROBENZENE	22.34	1079	60417	36.18	UG/L	98
39)	BROMOFLUOROBENZENE (SS-3)	26.60	1297	64736	97.74	UG/L	95

• Compound is ISTD

AR303350

ORIGINAL

QUANT REPORT

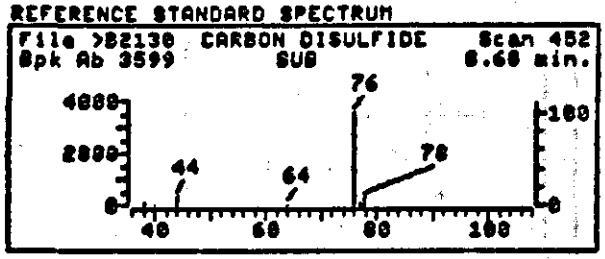
Operator ID: DENNIS Quant Rev: 6 Quant Time: 871001 18:57
Output File: ^H0040::QU Injected at: 871001 18:16
Data File: >H0040::H1 Dilution Factor: 1.00000
Name: 8709208-01MS 5mL
Misc: 10/01/87 DLS

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 870918 09:16

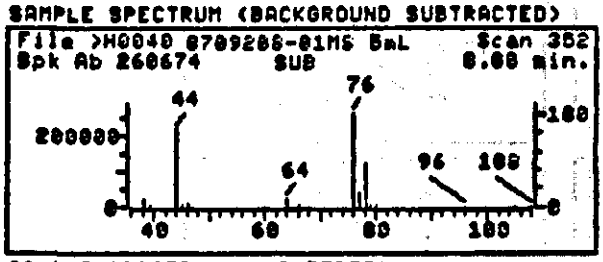
	Compound	R.T.	Scan#	Area	Conc	Units	q
6)	METHYLENE CHLORIDE	6.32	266	1329	2.11	UG/L	100
7)	ACETONE	7.00	301	14373	167.83	UG/L	100
8)	CARBON DISULFIDE	8.00	352	6447103M	3746.01	UG/L	100
9)	1,1-DICHLOROETHENE	9.09	401	17880	25.27	UG/L	95
12)	CHLOROFORM	11.42	520	13239	7.50	UG/L	95
16)	2-BUTANONE (MEK)	11.96	548	120	5.29	UG/L	22
23)	TRICHLOROETHENE	15.68	738	32177	29.10	UG/L	97
26)	BENZENE	16.07	758	57150	30.62	UG/L	100
31)	4-METHYL-2-PENTANONE	18.78	897	1095	2.44	UG/L	90
36)	TOLUENE	21.30	1026	40489	33.17	UG/L	97
37)	CHLOROBENZENE	22.34	1079	60417	36.18	UG/L	98

ORIGINAL (red)

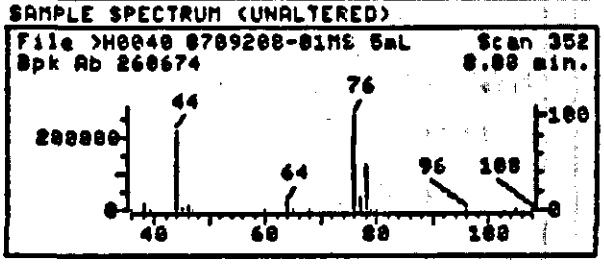
REFERENCE STANDARD SPECTRUM

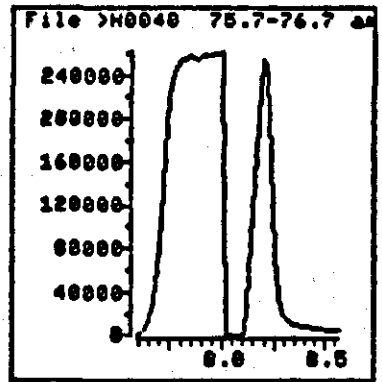


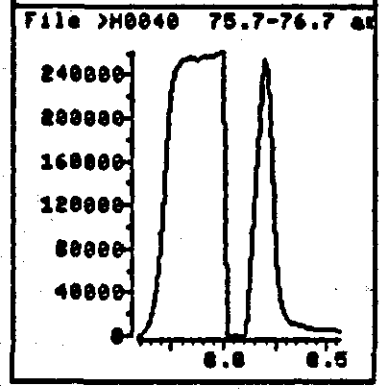
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





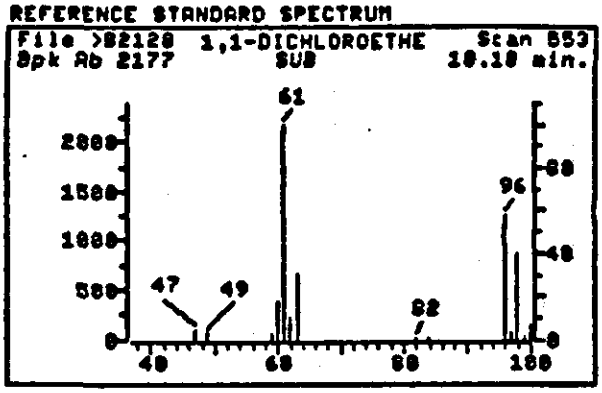


Data File: >H0040::H1 Quant Output File: ^H0040::QU
Name: 8709208-01MS 5mL
Misc: 10/01/87 DLS
Quant Time: 871001 18:57 Quant ID File: HVOAID::P1
Injected at: 871001 18:16 Last Calibration: 870918 09:16

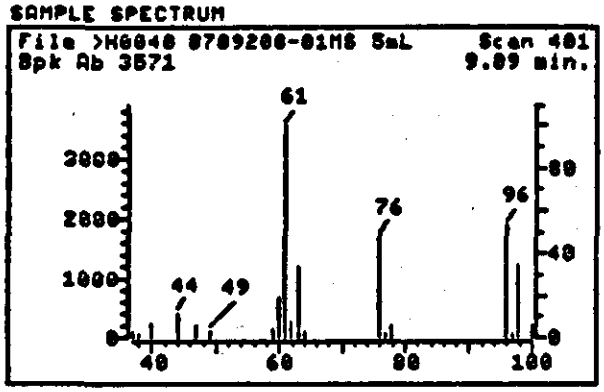
Compound No: 8
Compound Name: CARBON DISULFIDE
Scan Number: 352
Retention Time: 8.00 min.
Quant Ion: 76.0
Area: 6447103M
Concentration: 3746.01 UG/L
q-value: 100

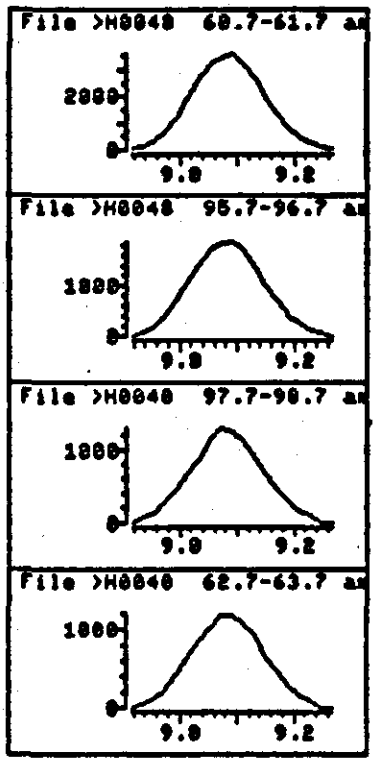
ORIGINAL

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM



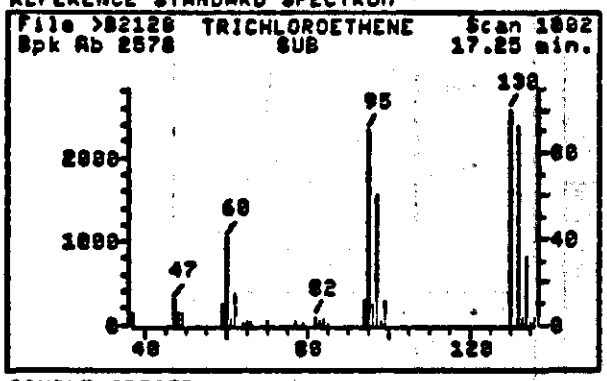


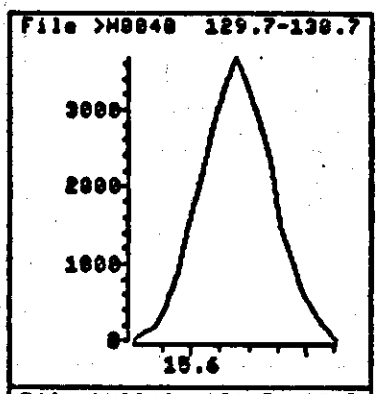
Data File: >H0040::H1 Quant Output File: ^H0040::QU
Name: 8709208-01MS 5mL
Misc: 10/01/87 DLS
Quant Time: 871001 18:57 Quant ID File: HVOAID::P1
Injected at: 871001 18:16 Last Calibration: 870918 09:16

Compound No: 9
Compound Name: 1,1-DICHLOROETHENE
Scan Number: 401
Retention Time: 9.09 min.
Quant Ion: 96.0
Area: 17880
Concentration: 25.27 UG/L
q-value: 95

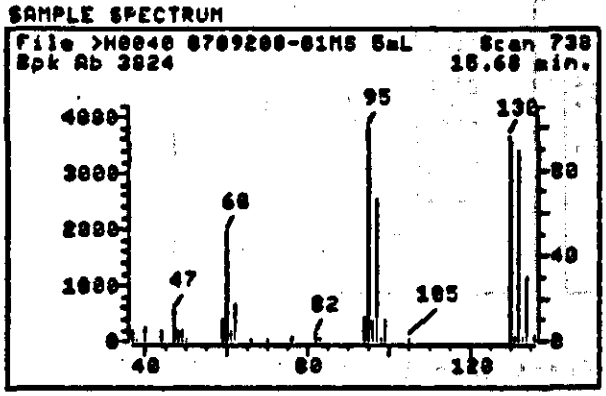
AR303353

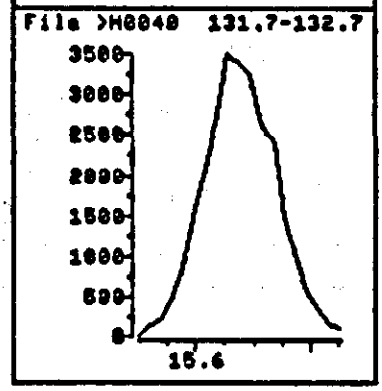
REFERENCE STANDARD SPECTRUM





SAMPLE SPECTRUM

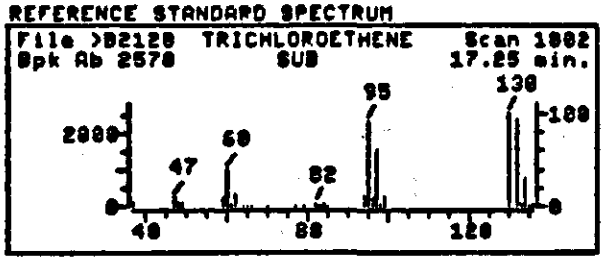




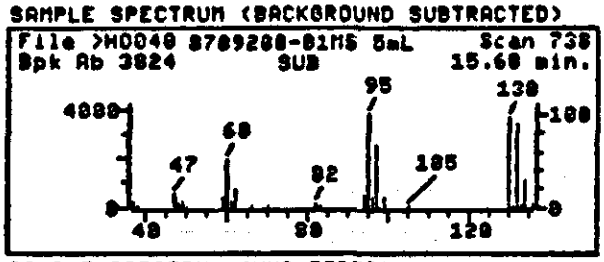
Data File: >H0040::H1 Quant Output File: ^H0040::QU
Name: 8709208-01MS 5mL
Misc: 10/01/87 DLS
Quant Time: 871001 18:57 Quant ID File: HVOAID::P1
Injected at: 871001 18:16 Last Calibration: 870918 09:16

Compound No: 23
Compound Name: TRICHLOROETHENE
Scan Number: 738
Retention Time: 15.68 min.
Quant Ion: 130.0
Area: 32177
Concentration: 29.10 UG/L
q-value: 97

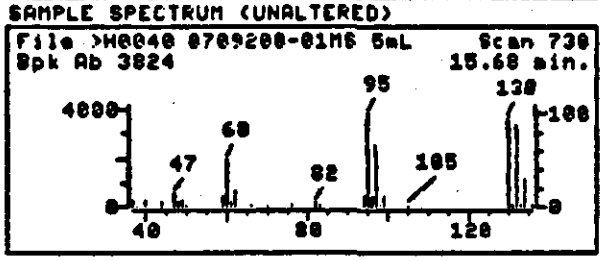
REFERENCE STANDARD SPECTRUM

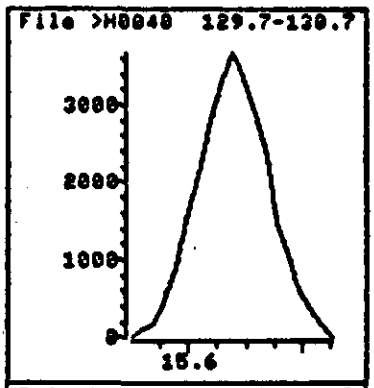


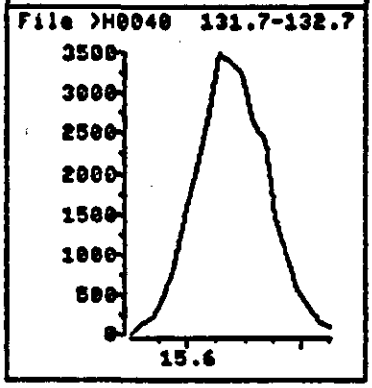
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







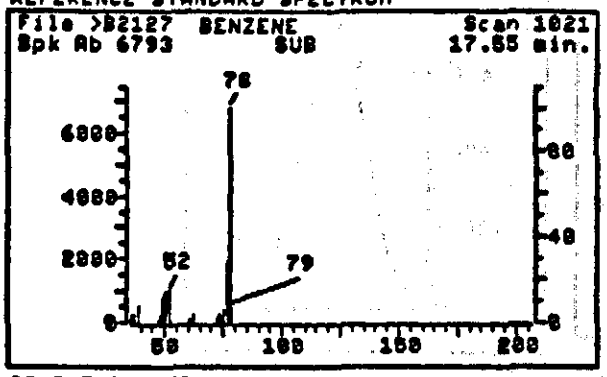
Data File: >H0040::H1
Name: 8709208-01MS 5mL
Misc: 10/01/87 DLS
Quant Time: 871001 18:57
Injected at: 871001 18:16

Quant Output File: ^H0040::QU
Quant ID File: HVOAID::P1
Last Calibration: 870918 09:16

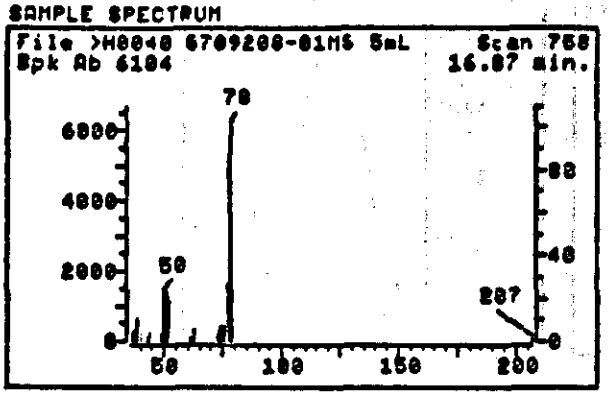
Compound No: 23
Compound Name: TRICHLOROETHENE
Scan Number: 738
Retention Time: 15.68 min.
Quant Ion: 130.0
Area: 32177
Concentration: 29.10 UG/L
q-value: 97

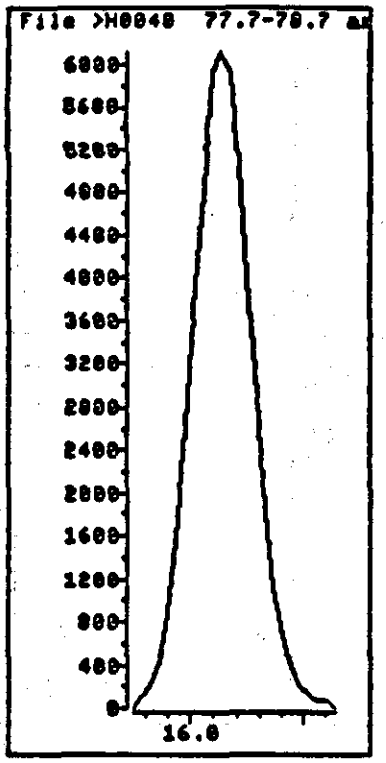
ORIGINAL

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM



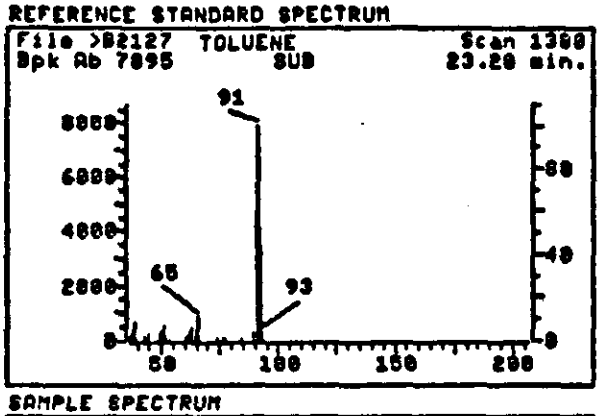


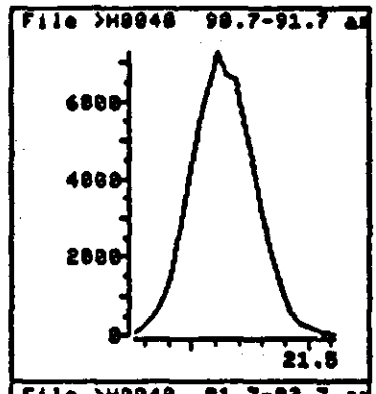
Data File: >H0040::H1 Quant Output File: ^H0040::QU
Name: 8709208-01MS 5mL
Misc: 10/01/87 DLS
Quant Time: 871001 18:57 Quant ID File: HVOAID::P1
Injected at: 871001 18:16 Last Calibration: 870918 09:16

Compound No: 26
Compound Name: BENZENE
Scan Number: 758
Retention Time: 16.07 min.
Quant Ion: 78.0
Area: 57150
Concentration: 30.62 UG/L
q-value: 100

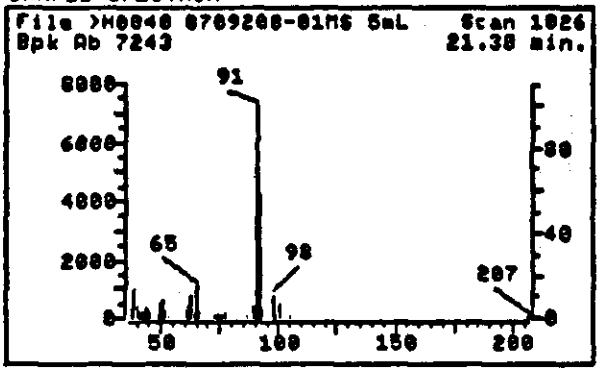
AR303356

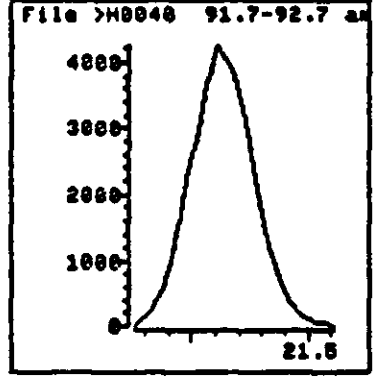
REFERENCE STANDARD SPECTRUM





SAMPLE SPECTRUM





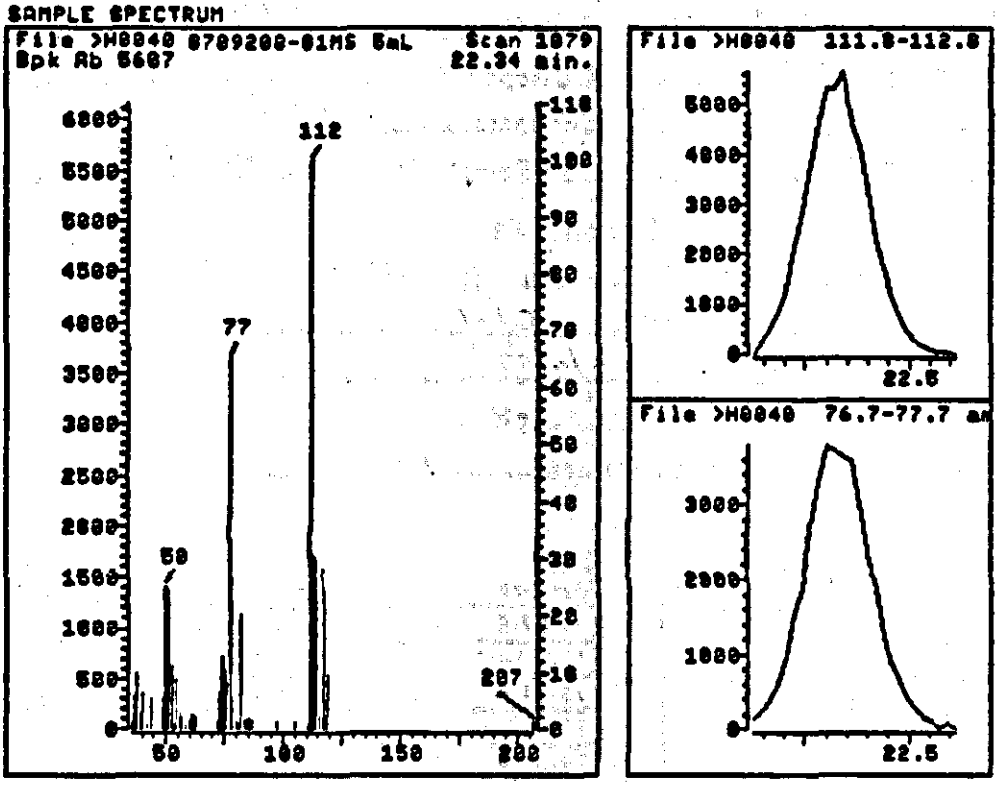
Data File: >H0040::H1
Name: 8709208-01MS 5mL
Misc: 10/01/87 DLS
Quant Time: 871001 18:57
Injected at: 871001 18:15

Quant Output File: ^H0040::QU

Quant ID File: HVOAID::P1
Last Calibration: 870918 09:15

Compound No: 36
Compound Name: TOLUENE
Scan Number: 1026
Retention Time: 21.30 min.
Quant Ion: 92.0
Area: 40489
Concentration: 33.17 UG/L
q-value: 97

SAMPLE SPECTRUM



Data File: >H0040::H1 Quant Output File: ^H0040::QU
Name: 8709208-01MS 5mL
Misc: 10/01/87 DLS
Quant Time: 871001 18:57 Quant ID File: HVOAID::P1
Injected at: 871001 18:16 Last Calibration: 870918 09:16

Compound No: 37
Compound Name: CHLOROBENZENE
Scan Number: 1079
Retention Time: 22.34 min.
Quant Ion: 112.1
Area: 60417
Concentration: 36.18 UG/L
q-value: 98

AR303358

Sample Number
TC-1 MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc. Case No: 8780034
Lab Sample ID No: 8710034-03MS DC Report No:
Sample Matrix: Water Contract No: 68-01-7278
Data Release Authorized By: Dana Matthews Date Sample Received: 10/2/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 10/4/87
Date Analyzed: 10/4/87
Conc/Dil Factor: 1:10 pH
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
75-09-2	Methylene Chloride	NR
67-64-1	Acetone	NR
75-15-0	Carbon Disulfide	8 ug/Kg
75-35-4	1,1-Dichloroethene	spike NR
75-34-3	1,1-Dichloroethane	NR
156-60-5	Trans-1,2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1,2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1,1,1-Trichloroethane	NR
56-23-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	NR
10061-02-6	Trans-1,3-Dichloropropene	NR
79-01-6	Trichloroethene	NR spike
124-48-1	Dibromochloromethane	NR
79-00-5	1,1,2-Trichloroethane	NR
71-43-2	Benzene	NR spike
10061-01-5	cis-1,3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1,1,2,2-Tetrachloroethane	NR
108-88-3	Toluene	NR spike
108-90-7	Chlorobenzene	NR spike
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained.

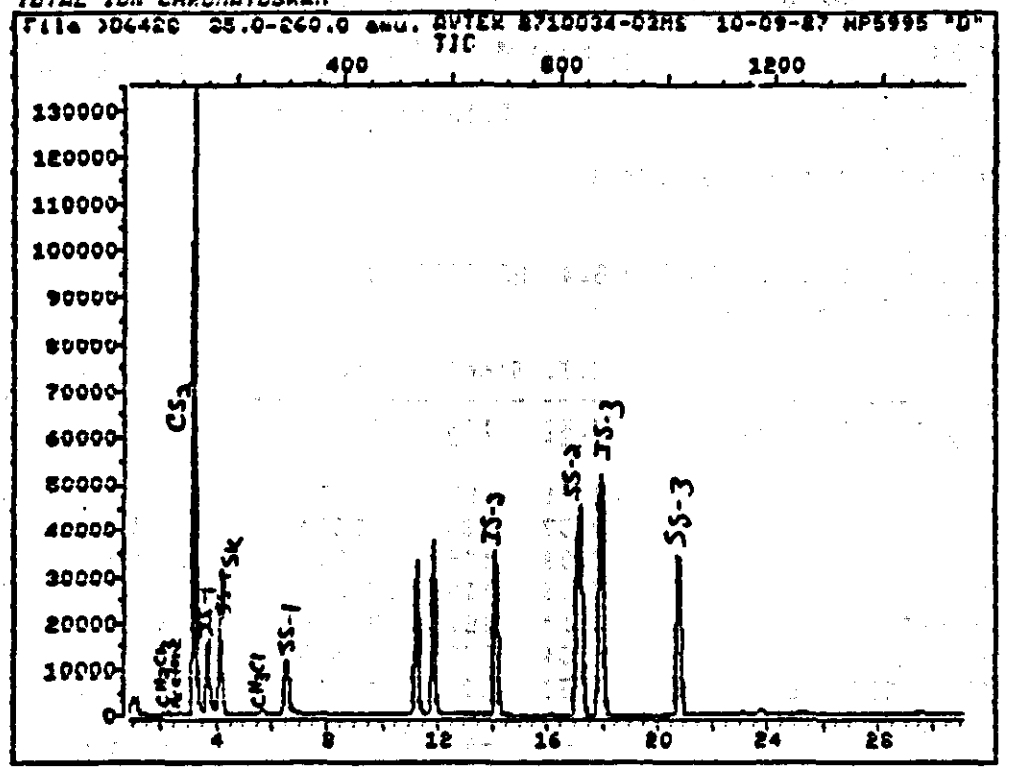
Value	If the result is a value greater than or equal to the detection limit, report the value.
U	Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the minimum quantitation detection limit for the sample."
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 15J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.
C	This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.
B	This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
Other	Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and placed on the Data Summary report.

NR not reported

AR303359

00279

TOTAL ION CHROMATOGRAM



Data File: >D6428::D2 TC-1, MJ
Name: AVTEX 8710034-03MS
Misc: 10-09-87 HP5995 "D" ALS.9 .5MLS

Id File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871014 09:31

Operator ID: MARK
Quant Time: 871014 09:31
Injected at: 871014 22:26

RRun 1:50

QUANT REPORT

Operator ID: MARK Quant Rev: 4 Quant Time: 871014 09:31
Output File: ^D6428::D2 Injected at: 871010 22:26
Data File: >D6428::D2 Dilution Factor: 1.00
Name: AVTEX 8710034-03MS
Misc: 10-09-87 HP5995 "D" ALS.9 .5MLS

ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871014 09:31

	Compound	R.T.	Scan#	Area	Conc	Units	q	
1)	•BROMOCHLOROMETHANE IS-1	2.67	145	26456	50.00	UG/L	90	
5)	METHYLENE CHLORIDE	2.24	72	1256	1.86	UG/L	100	✓
7)	ACETONE	2.51	86	29	.02	UG/L	100	
7)	ACETONE	2.67	94	2510	6.58	UG/L	100	✓
7)	ACETONE	2.89	105	101	.26	UG/L	100	
8)	CARBON DISULFIDE	3.16	119	670311	403.50	UG/L	100	✓
9)	1,1-DICHLOROETHENE	4.10	167	32091	43.59	UG/L	97	
12)	CHLOROFORM	5.64	246	3343	2.18	UG/L	96	✓
14)	D4-1,2-DICHLOROETHANE (SS-1)	6.52	291	46001	100.60	UG/L	93	
15)	•1,4-DIFLUOROBENZENE IS-2	14.08	678	104654	50.00	UG/L	100	
20)	BROMODICHLOROMETHANE	11.25	533	531	.76	UG/L	86	
23)	TRICHLOROETHENE	11.23	532	44152	43.62	UG/L	92	
26)	BENZENE	11.83	563	117801	45.56	UG/L	100	
26)	BENZENE	12.34	589	79	.03	UG/L	100	
26)	BENZENE	12.40	592	36	.01	UG/L	100	
30)	•D5-CHLOROBENZENE IS-3	17.87	872	81776	50.00	UG/L	100	
35)	D-8 TOLUENE (SS-2)	17.05	830	99311	100.69	UG/L	87	
36)	TOLUENE	17.21	838	74183	48.02	UG/L	96	
37)	CHLOROBENZENE	17.97	877	92990	51.55	UG/L	94	
39)	BROMOFLUOROBENZENE (SS-3)	20.76	1020	54225	100.53	UG/L	75	

• Compound is ISTD

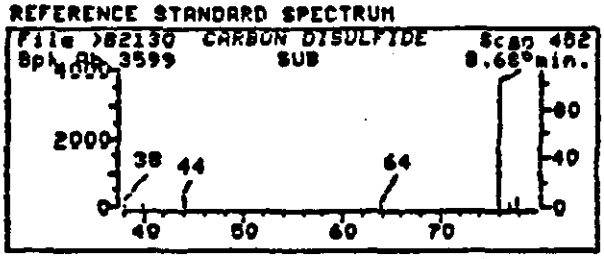
QUANT REPORT

Operator ID: MARK Quant Rev: 4 Quant Time: 871014 09:31
Output File: "D6428::D2 Injected at: 871010 22:26
Data File: >D6428::D2 Dilution Factor: 1.00
Name: AUTEX 8710034-03MS
Misc: 10-09-87 HP5995 "D" ALS.9 .5ML$

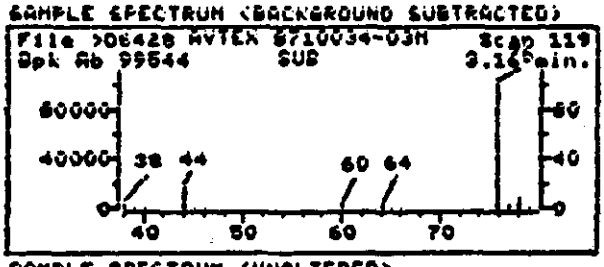
ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871014 09:31

	Compound	R.T.	Scan#	Area	Conc	Units	q
6)	METHYLENE CHLORIDE	2.24	72	1256	1.86	UG/L	100
7)	ACETONE	2.67	94	2510	6.58	UG/L	100
8)	CARBON DISULFIDE	3.16	119	670311	403.50	UG/L	100
12)	CHLOROFORM	5.64	246	3343	2.18	UG/L	95

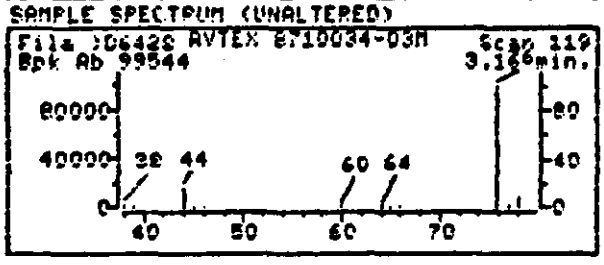
REFERENCE STANDARD SPECTRUM

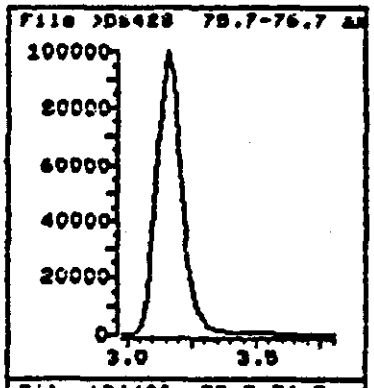


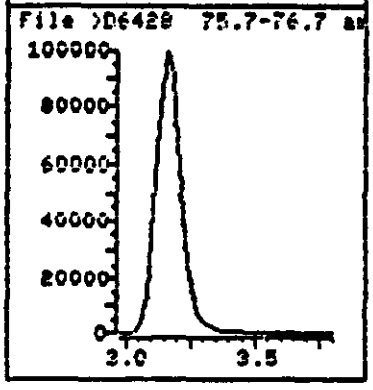
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >D6428::D2
Name: AUTEX 8710034-03MS
Misc: 10-09-87 HP5995 "D" ALS.S .SMLS
Quant Time: 871014 09:31
Injected at: 871010 22:28

Compound No: 9
Compound Name: CARBON DISULFIDE
Scan Number: 119
Retention Time: 3.16 min.
Area: 670311
Concentration: 403.50 UG/L
q-value: 100

✓

Sample Number
TC-1 MS

ORIGINAL Xerox

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc. Case No: 870034

Lab Sample ID No: 870034-03MS QC Report No:

Sample Matrix: Water Contract No: 68-01-7278

Data Release Authorized By: Dana Marquis Date Sample Received: 10/2/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 10/20/87

Date Analyzed: 10/20/87

Conc/Dil Factor: 1:100 pH

Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
79-2	Methylene Chloride	NR
54-1	Acetone	NR
75-15-0	Carbon Disulfide	5 J 240
75-35-4	1,1-Dichloroethene	NR pulse
75-34-3	1,1-Dichloroethane	NR
156-60-5	Trans-1,2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1,2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1,1,1-Trichloroethane	NR
56-23-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	NR
10061-02-6	Trans-1,3-Dichloropropene	NR
79-01-6	Trichloroethene	NR pulse
124-48-1	Dibromochloromethane	NR
79-00-5	1,1,2-Trichloroethane	NR
71-43-2	Benzene	NR pulse
10061-01-5	cis-1,3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1,1,2,2-Tetrachloroethane	NR
108-88-3	Toluene	NR pulse
108-90-7	Chlorobenzene	NR pulse
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained.

U Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the sample detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read U: Compound was analyzed for but not detected. The number is the sample detectable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (where a 1:1 response is assumed) or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 3 ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ug/l in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such descriptions attached to the data summary report.

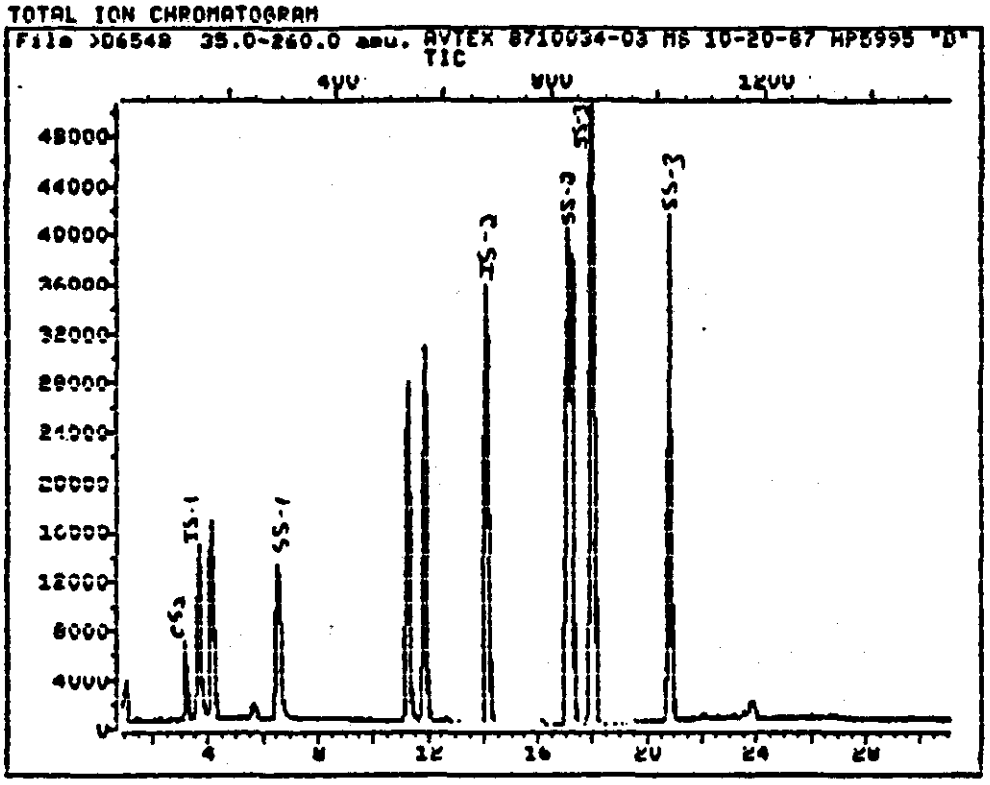
NR not reported

AR303364

AR303364

ORIGINAL

TOTAL ION CHROMATOGRAM



Data File: >D6548::D2
Name: AVTEX 8710034-03 MS
Misc: 10-20-87 HP5995 "D" ALS 1 100

TC-1 MS

Id File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871020 09:48

Operator ID: MANAGER
Quant Time: 871020 13:04
Injected at: 871020 12:22

AR303365

AR303365

ORIGINAL (Red)

QUANT REPORT

Operator ID: MANAGER Quant Rev: 4 Quant Time: 871020 13:04
Output File: "D6548::49 Injected at: 871020 12:22
Data File: >D6548::D2 Dilution Factor: 1.00
Name: AVTEX 8710034-03 MS
Misc: 10-20-87 HP5995 "D" ALS 1 100

ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871020 09:45

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	3.67	144	22376	50.00	UG/L	91
6)	METHYLENE CHLORIDE	2.25	71	554	1.06	UG/L	100
7)	ACETONE	2.17	67	213	.62	UG/L	100
7)	ACETONE	2.62	90	306	1.17	UG/L	100
7)	ACETONE	2.68	93	156	.76	UG/L	100
7)	ACETONE	2.93	106	132	.51	UG/L	100
7)	ACETONE	3.22	121	132	.51	UG/L	100
8)	CARBON DISULFIDE	3.18	119	30240	23.77	UG/L	100
9)	1,1-DICHLOROETHENE	4.12	167	25339	42.20	UG/L	97
12)	CHLOROFORM	5.65	245	4266	2.86	UG/L	96
14)	D4-1,2-DICHLOROETHANE (SS-1)	6.54	291	51367	102.98	UG/L	92
15)	•1,4-DIFLUOROBENZENE IS-2	14.11	678	104530	50.00	UG/L	100
20)	BROMODICHLOROMETHANE	11.25	532	476	.77	UG/L	97
23)	TRICHLOROETHENE	11.25	532	38304	42.34	UG/L	94
26)	BENZENE	11.66	564	97544	43.39	UG/L	100
26)	BENZENE	12.27	564	107	.05	UG/L	100
26)	BENZENE	12.33	567	111	.05	UG/L	100
30)	•D5-CHLOROBENZENE IS-3	17.90	872	95454	50.00	UG/L	100
33)	TETRACHLOROETHYLENE	16.12	781	261	.35	UG/L	56
35)	D-8 TOLUENE (SS-2)	17.08	830	104526	101.14	UG/L	89
36)	TOLUENE	17.21	837	62543	40.84	UG/L	96
37)	CHLOROBENZENE	17.99	877	79957	46.11	UG/L	90
39)	BROMOFLUOROBENZENE (SS-3)	20.81	1021	66751	101.71	UG/L	80

• Compound is ISTD

AR303366

AR303366

ORIGINAL

QUANT REPORT

Operator ID: MANAGER Quant Rev: 4 Quant Time: 871020 13:04
Output File: ^D6548::49 Injected at: 871020 12:22
Data File: >D6548::D2 Dilution Factor: 1.00
Name: AVTEX 8710034-03 MS
Misc: 10-20-87 HP5995 "D" ALS 1 100

ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871020 09:49

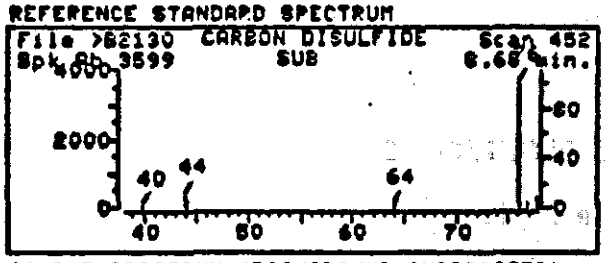
	Compound	R.T.	Scan#	Area	Conc	Units	q
6)	METHYLENE CHLORIDE	2.25	71	554	1.06	UG/L	100
7)	ACETONE	2.62	90	306	1.17	UG/L	100
8)	CARBON DISULFIDE	3.18	119	30240	23.77	UG/L	100
12)	CHLOROFORM	5.65	245	4266	2.86	UG/L	96

AR303367

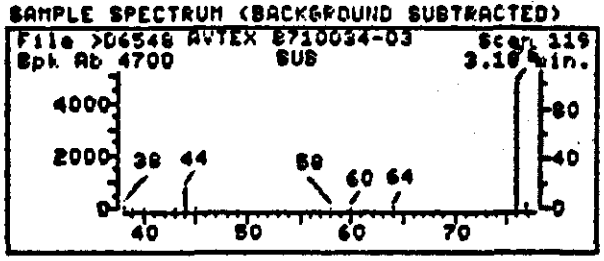
AR303367

ORIGINAL

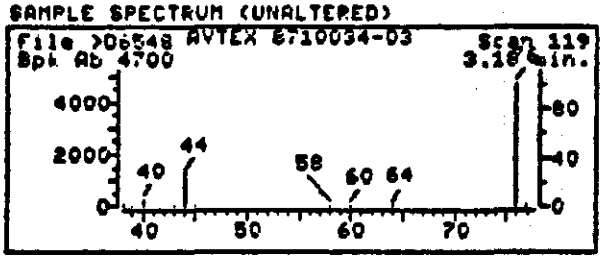
REFERENCE STANDARD SPECTRUM

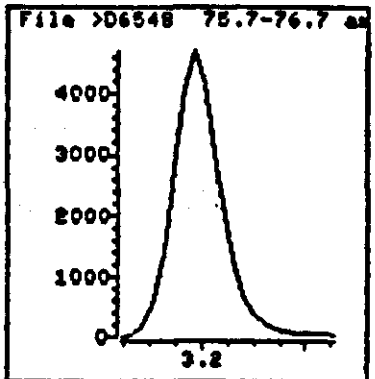


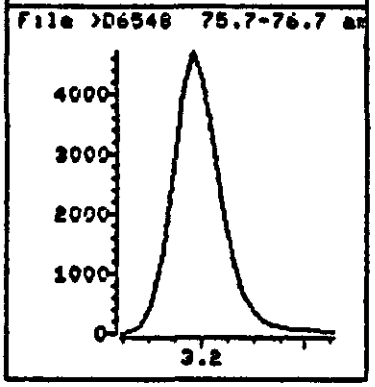
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >D6548::D2
Name: AVTEX 8710034-03 MS
Misc: 10-20-87 HP5995 "D" ALS 1 100
Quant Time: 871020 13:04
Injected at: 871020 12:22

Compound No: 8
Compound Name: CARBON DISULFIDE
Scan Number: 119
Retention Time: 3.18 min.
Area: 30240
Concentration: 23.77 UG/L
q-value: 100

Cambridge Analytical Associates

V RAW QC DATA PACKAGE

E. Matrix Spike Duplicate Data

Sample Number
GR-I MSD
Reran

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Centralize Analytical Svcs Case No: 8709172

Lab Sample ID No: 8709172-06C-0 (MSD) QC Report No:

Sample Matrix: WATER Contract No:

Data Release Authorized By: Lona Marquez Date Sample Received: 09/19/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 10/02/87

Date Analyzed: 10/02/87

Conc/Dil Factor: 1.10 pH

Percent Moisture: (Not Decanted) N/A

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	
75-01-4	Vinyl Chloride	
75-00-3	Chloroethane	
75-09-2	Methylene Chloride	
67-64-1	Acetone	
75-15-0	Carbon Disulfide 1200 ppm	50U
75-35-4	1, 1-Dichloroethene	NR
75-34-3	1, 1-Dichloroethane	
156-60-5	Trans-1, 2-Dichloroethene	
67-66-3	Chloroform	
107-06-2	1, 2-Dichloroethane	
78-93-3	2-Butanone	
71-55-6	1, 1, 1-Trichloroethane	
56-23-5	Carbon Tetrachloride	
108-05-4	Vinyl Acetate	
75-27-4	Bromodichloromethane	

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	NR
10061-02-6	Trans-1, 3-Dichloropropene	
79-01-6	Trichloroethene	
124-48-1	Dibromochloromethane	
79-00-5	1, 1, 2-Trichloroethane	
71-43-2	Benzene	
10061-01-5	cis-1, 3-Dichloropropene	
110-75-8	2-Chloroethylvinylether	
75-25-2	Bromoform	
591-78-6	4-Methyl-2-Pentanone	
108-10-1	2-Hexanone	
127-18-4	Tetrachloroethene	
79-34-5	1, 1, 2, 2-Tetrachloroethane	
108-88-3	Toluene	
108-90-7	Chlorobenzene	
100-41-4	Ethylbenzene	
100-42-5	Styrene	
	Total Xylenes	

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

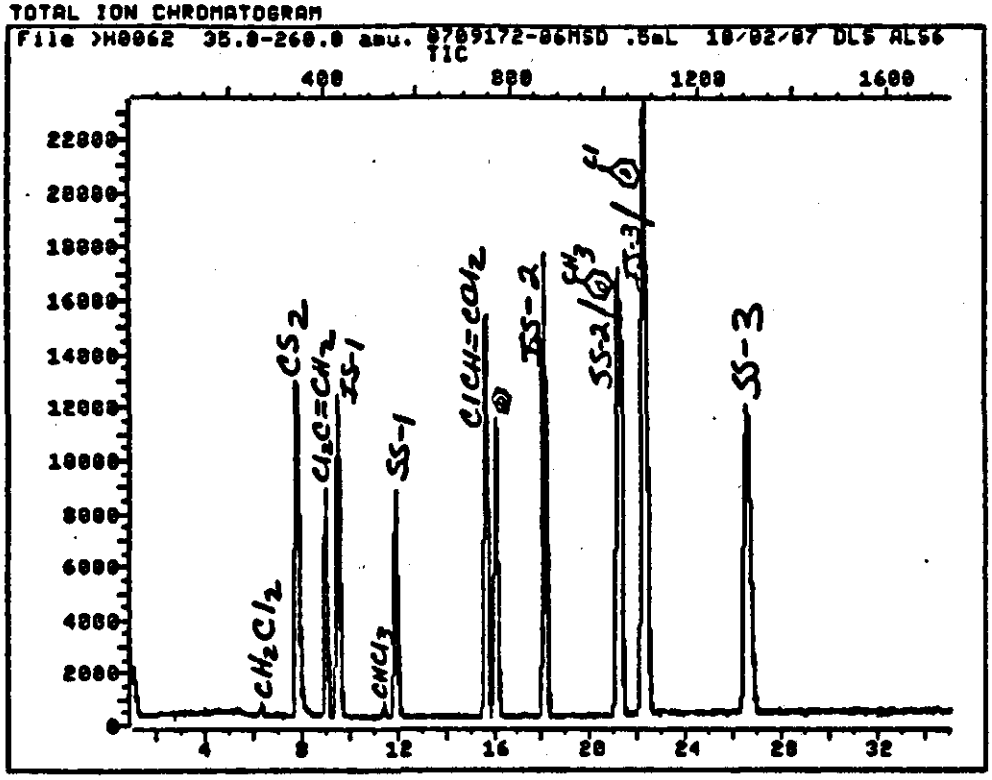
C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

AR303370

TOTAL ION CHROMATOGRAM



Data File: >H0062::H1 Quant Output File: ^H0062::QU
Name: 8709172-06MSD .5mL
Misc: 10/02/87 DLS AL56 CK-I-MSD

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 870918 09:16

Operator ID: DENNIS
Quant Time: 871002 20:30
Injected at: 871002 19:49

QUANT REPORT

Operator ID: DENNIS Quant Rev: 6 Quant Time: 871007 10:56
Output File: ^H0062::QU Injected at: 871002 19:49
Data File: >H0062::H1 Dilution Factor: 1.00000
Name: 8709172-06MSD .5mL
Misc: 10/02/87 DLS ALS6

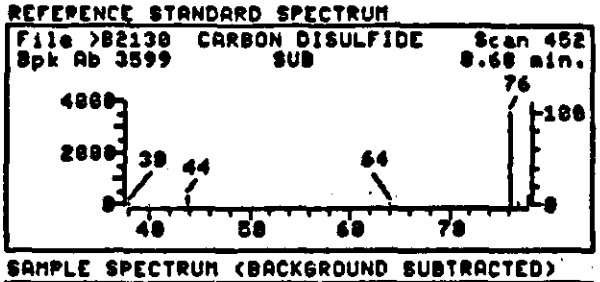
ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 871007 10:43

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	9.52	431	18655	50.00	UG/L	100
6)	METHYLENE CHLORIDE	6.22	262	43	.12	UG/L	100
6)	METHYLENE CHLORIDE	6.26	264	200	.55	UG/L	100
6)	METHYLENE CHLORIDE	6.32	267	647	1.78	UG/L	100
7)	ACETONE	6.88	296	154	2.18	UG/L	100
7)	ACETONE	6.94	299	179	2.53	UG/L	100
7)	ACETONE	7.02	303	142	2.01	UG/L	100
8)	CARBON DISULFIDE	7.82	344	101232	123.43	UG/L	100
8)	CARBON DISULFIDE	8.41	374	112	.14	UG/L	100
8)	CARBON DISULFIDE	8.45	376	257	.31	UG/L	100
9)	1,1-DICHLOROETHENE	9.03	406	14140	39.32	UG/L	95
12)	CHLOROFORM	11.44	529	2353	2.22	UG/L	88
14)	D4-1,2-DICHLOROETHANE (SS-1)	11.92	554	30998	103.72	UG/L	92
15)	•1,4-DIFLUOROBENZENE IS-2	18.10	870	56217	50.00	UG/L	100
23)	TRICHLOROETHENE	15.66	745	21592	39.35	UG/L	86
26)	BENZENE	16.03	764	40030	39.10	UG/L	100
26)	BENZENE	16.26	776	112	.11	UG/L	100
30)	•DS-CHLOROBENZENE IS-3	22.20	1080	47562	50.00	UG/L	100
35)	D-8 TOLUENE (SS-2)	21.11	1024	54375	101.02	UG/L	78
36)	TOLUENE	21.28	1033	27758	39.52	UG/L	97
37)	CHLOROBENZENE	22.30	1085	39816	43.77	UG/L	82
39)	BROMOFLUOROBENZENE (SS-3)	26.58	1304	46160M	103.42	UG/L	78

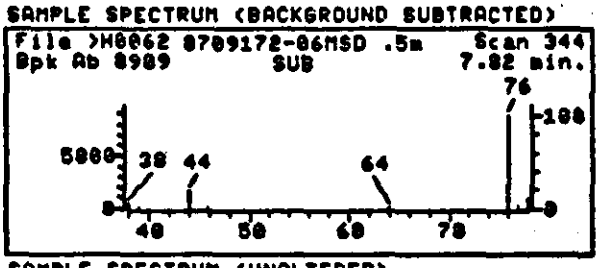
• Compound is ISTD

ORIGINAL (red)

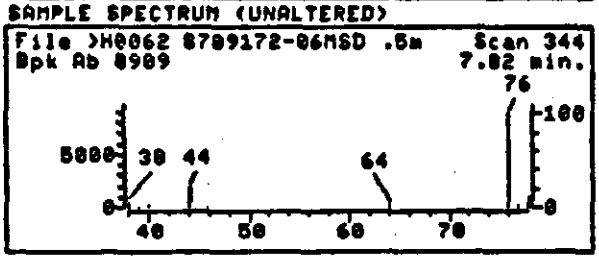
REFERENCE STANDARD SPECTRUM

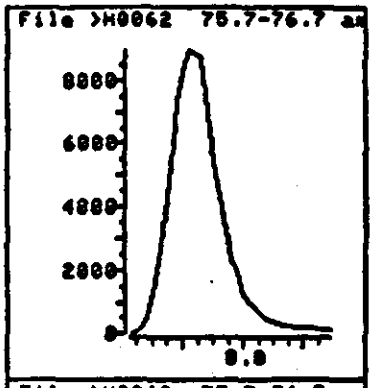


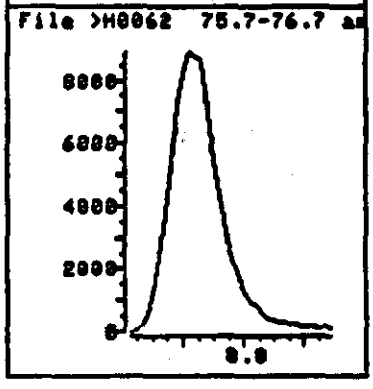
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





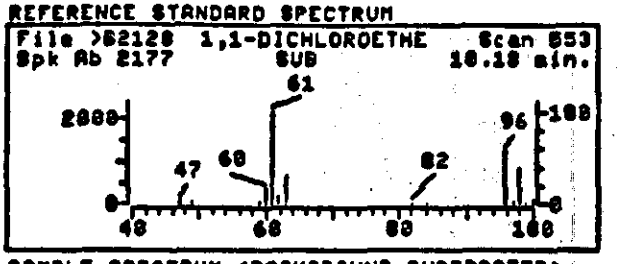


Data File: >H0062::H1 Quant Output File: ^H0062::QU
Name: 8709172-06MSD .5mL
Misc: 10/02/87 DLS ALS6
Quant Time: 871002 20:30 Quant ID File: HVOAID::P1
Injected at: 871002 19:49 Last Calibration: 870918 09:16

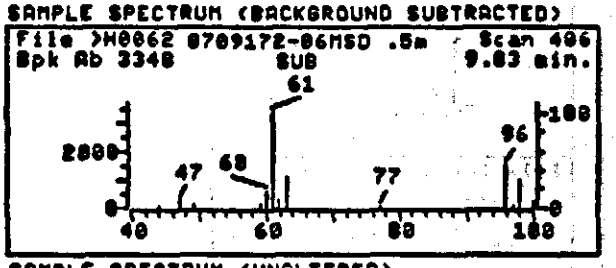
Compound No: 8
Compound Name: CARBON DISULFIDE
Scan Number: 344
Retention Time: 7.82 min.
Quant Ion: 76.0
Area: 101232
Concentration: ~~79.07~~ 123.43 UG/L
q-value: 100

ORIGINAL (Red)

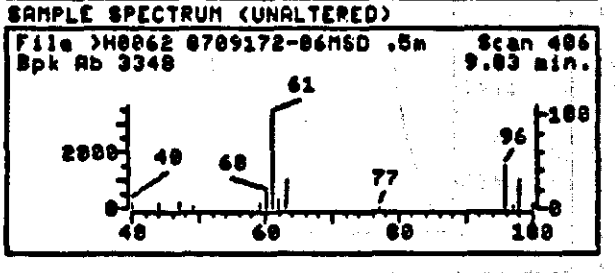
REFERENCE STANDARD SPECTRUM

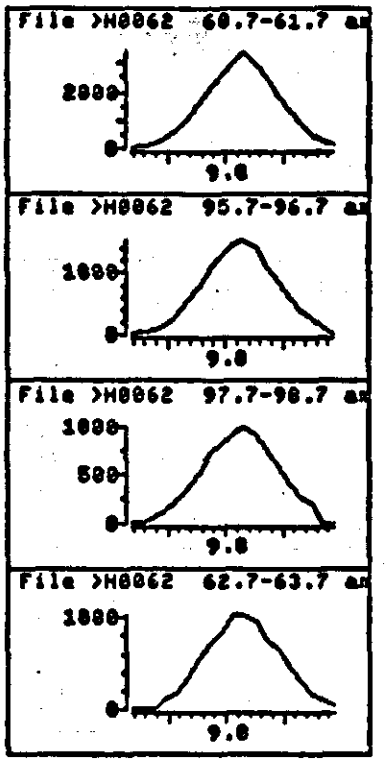


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >H0062::H1 Quant Output File: ^H0062::QU
Name: 8709172-06MSD .5mL
Misc: 10/02/87 DLS AL56
Quant Time: 871002 20:30 Quant ID File: HVOAID::P1
Injected at: 871002 19:49 Last Calibration: 870918 09:16

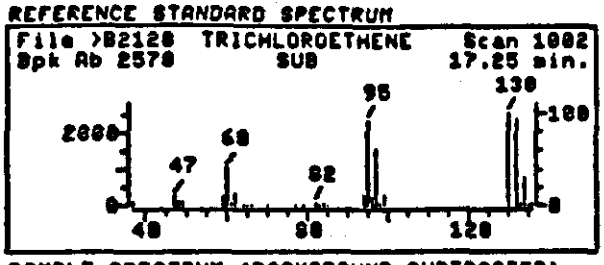
Compound No: 9
Compound Name: 1,1-DICHLOROETHENE
Scan Number: 406
Retention Time: 9.03 min.
Quant Ion: 96.0
Area: 14140
Concentration: 25.50 UG/L
q-value: 95

✓

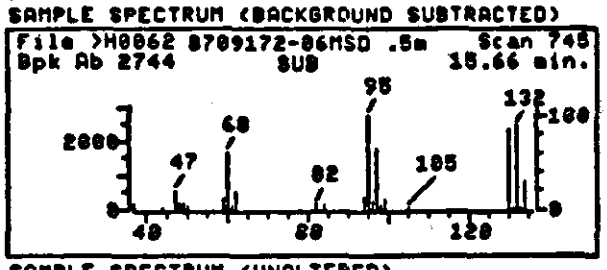
AR303374

ORIGINAL

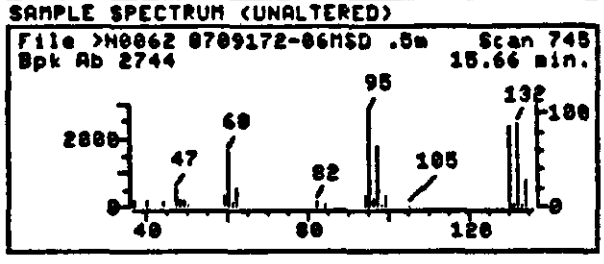
REFERENCE STANDARD SPECTRUM

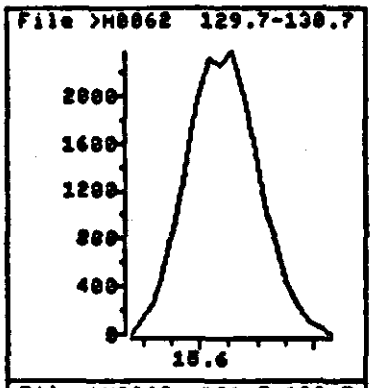


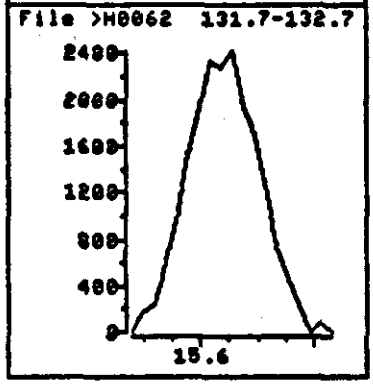
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >H0062::H1
Name: 8709172-06MSD .5mL
Misc: 10/02/87 DLS ALS6
Quant Time: 871002 20:30
Injected at: 871002 19:49

Quant Output File: ^H0062::QU

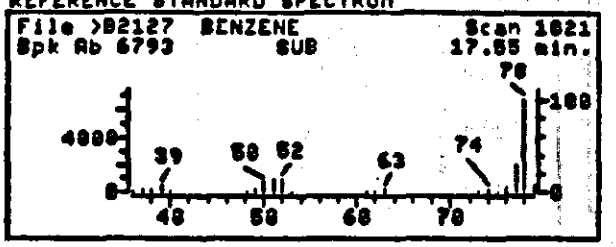
Quant ID File: HVOAID::P1
Last Calibration: 870918 09:16

Compound No: 23
Compound Name: TRICHLOROETHENE
Scan Number: 745
Retention Time: 15.66 min.
Quant Ion: 130.0
Area: 21592
Concentration: 29.02 UG/L
q-value: 86

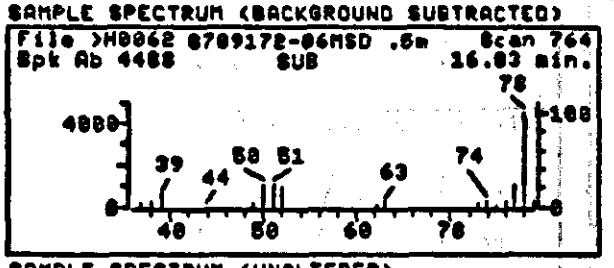
AR303375

ORIGINAL (Red)

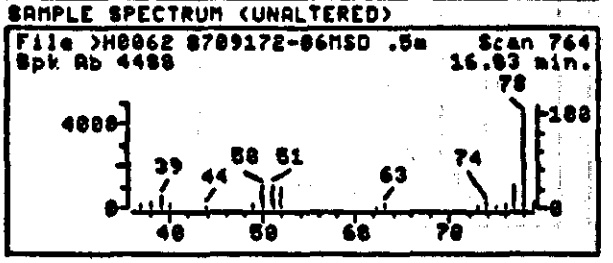
REFERENCE STANDARD SPECTRUM

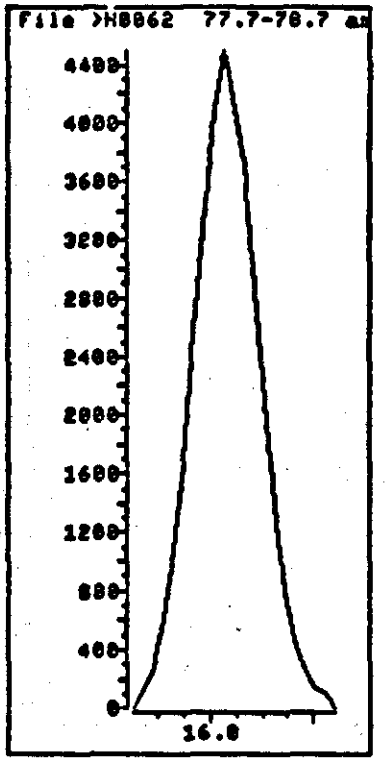


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

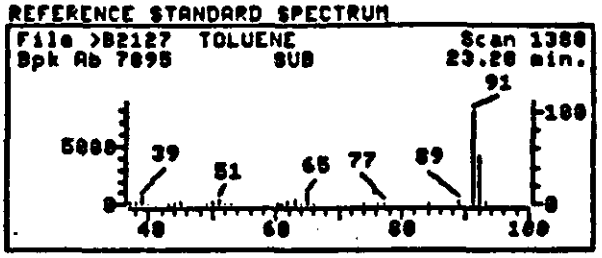




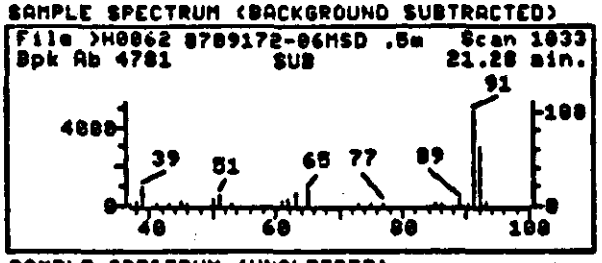
Data File: >H0062::H1 Quant Output File: ^H0062::QU
Name: 8709172-06MSD .5mL
Misc: 10/02/87 DLS ALS6
Quant Time: 871002 20:30 Quant ID File: HVOAID::P1
Injected at: 871002 19:49 Last Calibration: 870918 09:16

Compound No: 26
Compound Name: BENZENE
Scan Number: 764
Retention Time: 16.03 min.
Quant Ion: 78.0
Area: 40030
Concentration: 31.87 UG/L
q-value: 100

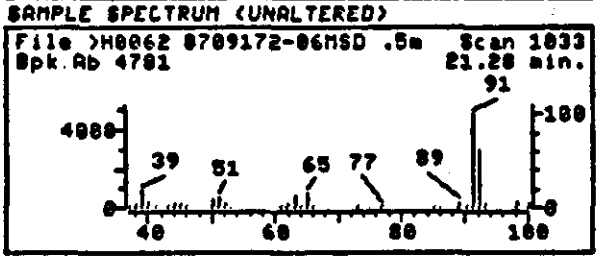
REFERENCE STANDARD SPECTRUM

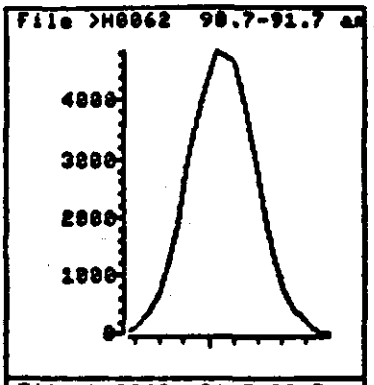


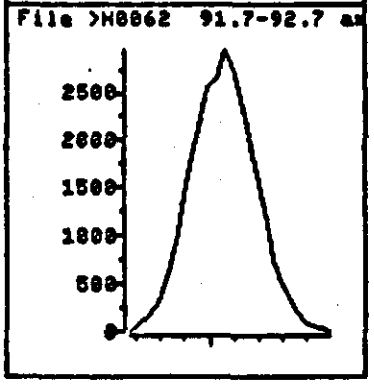
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







ORIGINAL (Red)

Data File: >H0062::H1
Name: 8709172-06MSD .5mL
Misc: 10/02/87 DLS ALS6
Quant Time: 871002 20:30
Injected at: 871002 19:49

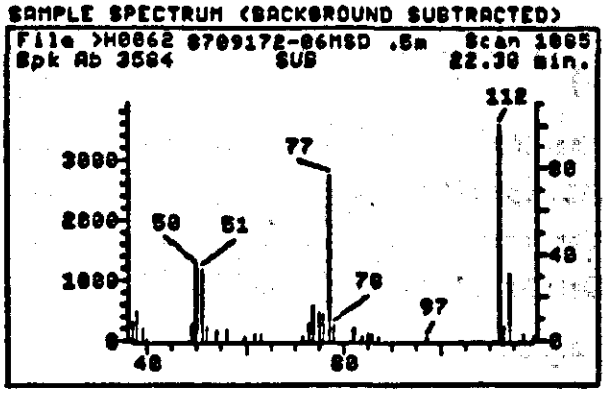
Quant Output File: ^H0062::QU

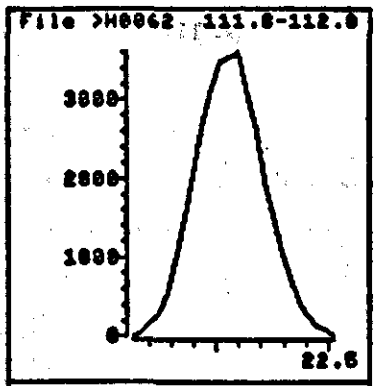
Quant ID File: HVOAID::P1
Last Calibration: 870918 09:16

Compound No: 36
Compound Name: TOLUENE
Scan Number: 1033
Retention Time: 21.28 min.
Quant Ion: 92.0
Area: 27758
Concentration: 34.19 UG/L
q-value: 97

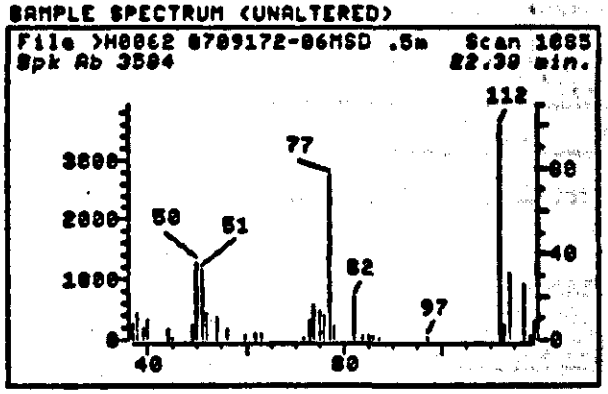
AR303377

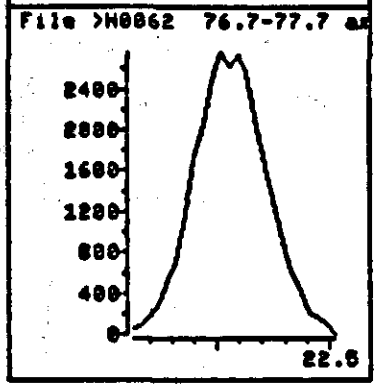
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





ORIGINAL (Red)

Data File: >H0062::H1 Quant Output File: ^H0062::QU
Name: 8709172-06MSD .5mL
Misc: 10/02/87 DLS ALS6
Quant Time: 871002 20:30 Quant ID File: HVOAID::P1
Injected at: 871002 19:49 Last Calibration: 870918 09:16

Compound No: 37
Compound Name: CHLOROBENZENE
Scan Number: 1085
Retention Time: 22.30 min.
Quant Ion: 112.1
Area: 39816
Concentration: 35.85 UG/L
q-value: 82

AR303378

Sample Number
S2-E MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc. Case No: 8709207

Lab Sample ID No: 8709207-04MSD QC Report No:

Sample Matrix: Water Contract No: 68-01-7278

Data Release Authorized By: Dana Marquis Date Sample Received: 9/24/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 10/1/87

Date Analyzed: 10/1/87

Conc/Dil Factor: 1:10 pH

Percent Moisture: (Not Decanted) N/A

CAS Number		ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
75-09-2	Methylene Chloride	NR
67-64-1	Acetone	NR
75-15-0	Carbon Disulfide	29000
75-35-4	1,1-Dichloroethene	NR
75-34-3	1,1-Dichloroethane	NR
156-60-5	Trans-1,2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1,2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1,1,1-Trichloroethane	NR
56-23-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/L or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	NR
10061-02-6	Trans-1,3-Dichloropropene	NR
79-01-6	Trichloroethene	NR
124-48-1	Dibromochloromethane	NR
79-00-5	1,1,2-Trichloroethane	NR
71-43-2	Benzene	NR
10061-01-5	cis-1,3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1,1,2,2-Tetrachloroethane	NR
108-88-3	Toluene	NR
108-90-7	Chlorobenzene	NR
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained.

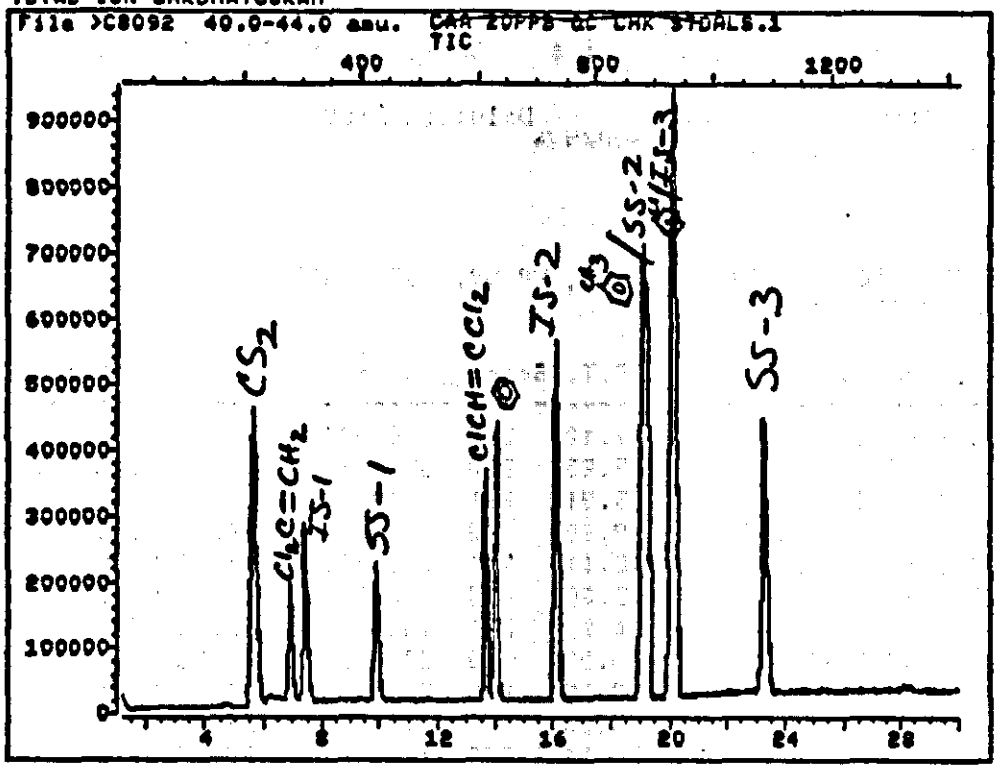
- U — If the result is a value greater than or equal to the detection limit, report the value.
- U — Indicates compound was analyzed for but not detected. Report the sample detection limit for the sample with the U (e.g., 10U) based on the necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected." The number is the sample detection limit for the sample.
- J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (where a 1:1 response is assumed) or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 12J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.
- C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng on the final column should be confirmed by GC/MS.
- B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and placed on the Data Summary Report.

NR not reported

AR3D3379

ORIGINAL (Red)

TOTAL ION CHROMATOGRAM



Data File: >C8092::UP
Name: ~~CAA 20PPB QC CHK STD~~ S2-EMSD
Misc: ALS.1

8704207-04 msd

Id File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)
Last Calibration: 871001 16:18

Operator ID:
Quant Time: 871002 09:51
Injected at: 871002 00:03

~~This sample may be~~
~~GC# 8704044-2~~
~~K.J.~~

AR303380

ORIGINAL (Red)

QUANT REPORT

Operator ID: Quant Rev: 4 Quant Time: 871002 09:51
Output File: ^C8092::P3 Injected at: 871002 00:03
Data File: >C8092::UP Dilution Factor: 1.00
Name: ~~CAA 20PPB 00 CHK STD~~ 8709207-04W
Misc: AL5.1

ID File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 524, HP 5993-QS (INSTR. C)
Last Calibration: 871001 16:19

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	7.40	305	528534	50.00	UG/L	100
8)	CARBON DISULFIDE	5.63	218	3714467	287.16	UG/L	97
9)	1,1-DICHLOROETHENE	6.91	281	345234	27.96	UG/L	93
14)	D4-1,2-DICHLOROETHANE (SS-1)	9.90	428	690842	99.00	UG/L	92
15)	•1,4-DIFLUOROBENZENE IS-2	16.11	734	2096902	50.00	UG/L	100
23)	TRICHLOROETHENE	13.65	613	551173	37.37	UG/L	95
26)	BENZENE	14.02	631	1538579	36.85	UG/L	100
30)	•D5-CHLOROBENZENE IS-3	20.05	928	2015120	50.00	UG/L	100
35)	D-8 TOLUENE (SS-2)	19.06	879	2064083	104.78	UG/L	92
36)	TOLUENE	19.20	886	1158458	34.84	UG/L	97
37)	CHLOROBENZENE	20.14	932	1745462	39.47	UG/L	90
39)	BROMOFLUOROBENZENE (SS-3)	23.27	1086	1108195	97.91	UG/L	91

• Compound is ISTD

QUANT REPORT

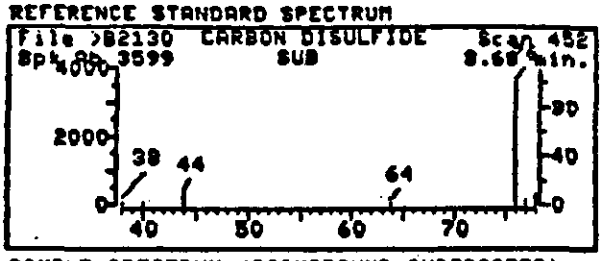
Operator ID: Quant Rev: 4 Quant Time: 871002 09:51
Output File: ^C8092::P3 Injected at: 871002 00:03
Data File: >C8092::UP Dilution Factor: 1.00
Name: CAA 20PPB QC CHK STD
Misc: ALS.1

ID File: CV624::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5993-QS (INSTR. C)
Last Calibration: 871001 16:19

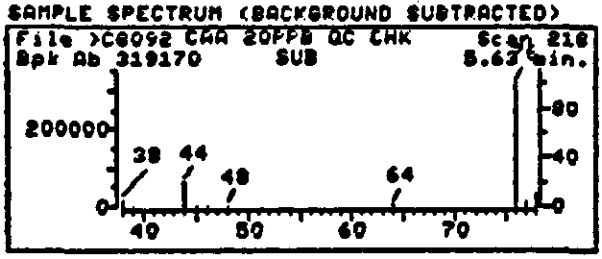
	Compound	R.T.	Scan#	Area	Conc	Units	q
8)	CARBON DISULFIDE	5.63	218	3714467	287.16	UG/L	97 ✓
9)	1,1-DICHLOROETHENE	6.91	281	345234	27.96	UG/L	83 ✓
23)	TRICHLOROETHENE	13.65	613	551173	37.37	UG/L	95 ✓
26)	BENZENE	14.02	631	1538579	36.85	UG/L	100 ✓
36)	TOLUENE	19.20	886	1158468	34.84	UG/L	97 ✓
37)	CHLOROBENZENE	20.14	932	1745462	39.47	UG/L	90 ✓

AR303382

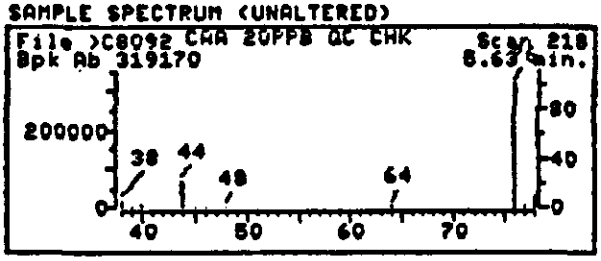
REFERENCE STANDARD SPECTRUM

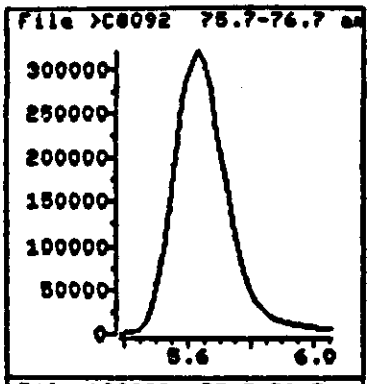


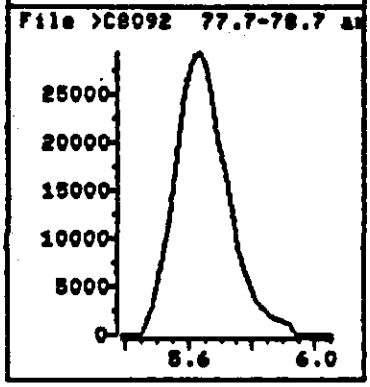
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

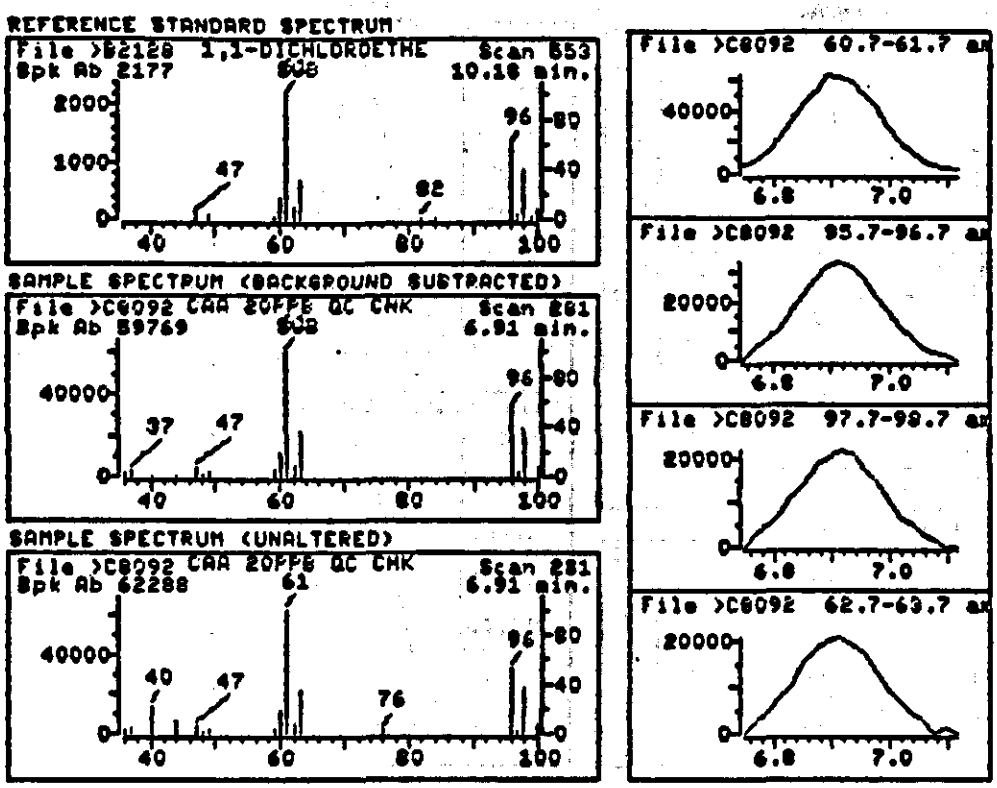






Data File: >C8092::UP
Name: CAA 20PPB QC CHK STD
Misc: ALS.1
Quant Time: 871002 09:51
Injected at: 871002 00:03

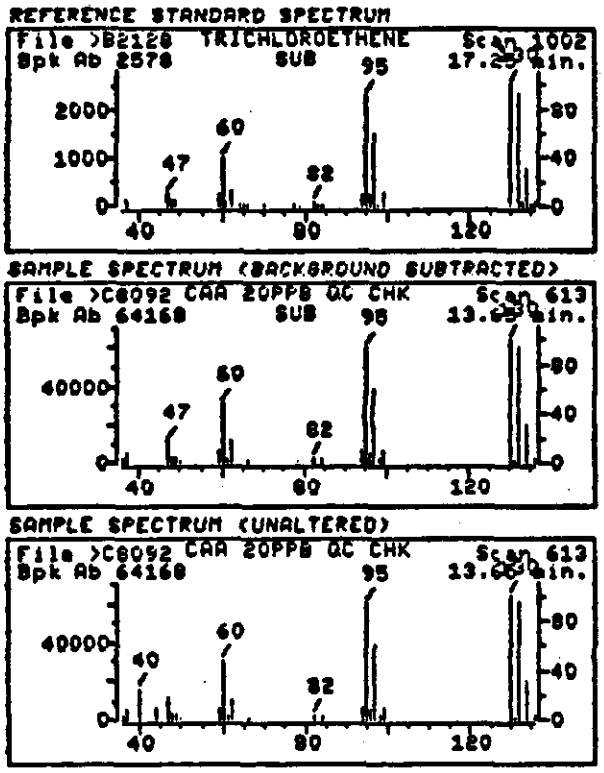
Compound No: 8
Compound Name: CARBON DISULFIDE
Scan Number: 218
Retention Time: 5.63 min.
Area: 3714467
Concentration: 287.15 UG/L
q-value: 97

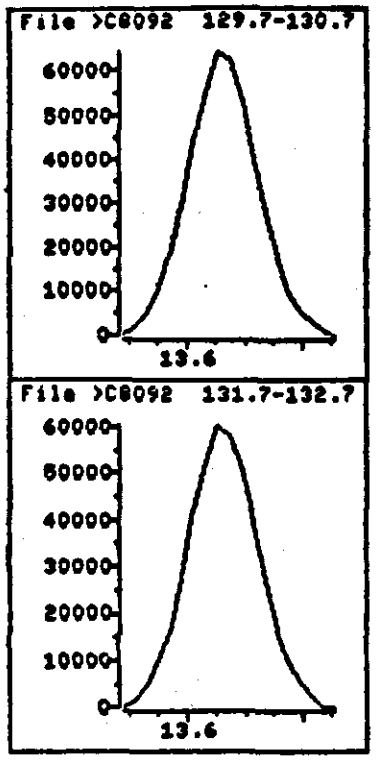


Data File: >C8092::UP
Name: CAA 20PPB QC CHK STD
Misc: ALS.1
Quant Time: 871002 09:51
Injected at: 871002 00:03

Compound No: 9
Compound Name: 1,1-DICHLOROETHENE
Scan Number: 281
Retention Time: 6.91 min.
Area: 345234
Concentration: 27.96 UG/L
q-value: 93

ORIGINAL (Red)

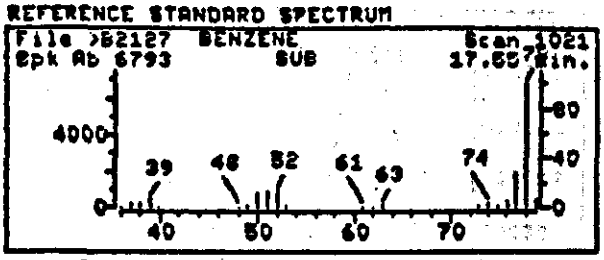




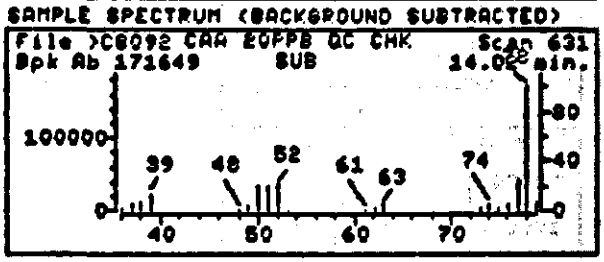
Data File: >C8092::UP
Name: CAA 20PPB QC CHK STD
Misc: ALS.1
Quant Time: 871002 09:51
Injected at: 871002 00:03

Compound No: 23
Compound Name: TRICHLORDETHENE
Scan Number: 613
Retention Time: 13.65 min.
Area: 551173
Concentration: 37.37 UG/L
q-value: 95

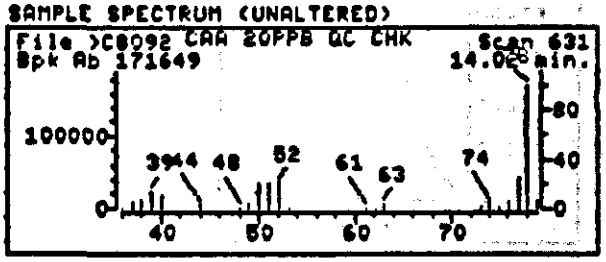
REFERENCE STANDARD SPECTRUM

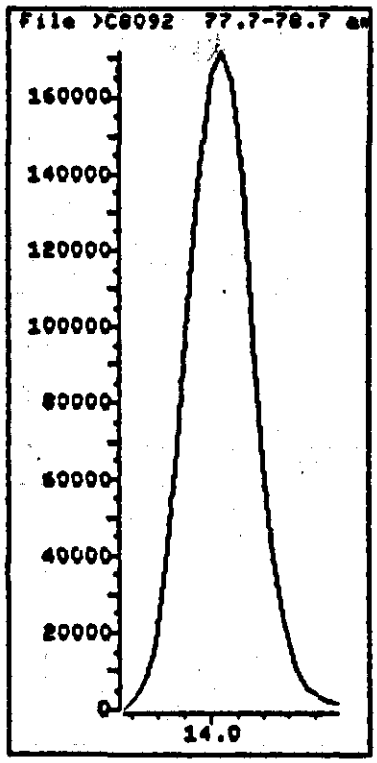


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



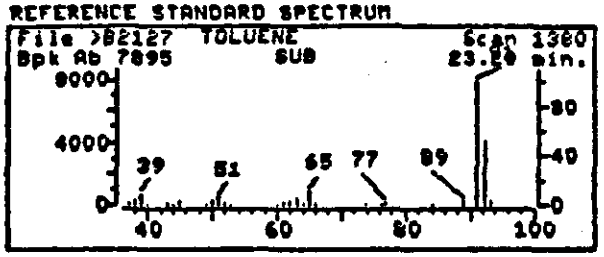


Data File: >C8092::UP
Name: CAA 20PPB QC CHK STD
Misc: ALS.1
Quant Time: 871002 09:51
Injected at: 871002 00:03

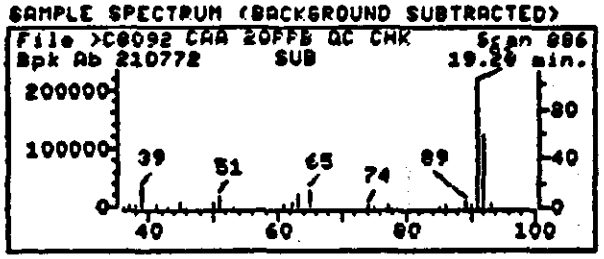
Compound No: 26
Compound Name: BENZENE
Scan Number: 631
Retention Time: 14.02 min.
Area: 1538579
Concentration: 36.85 UG/L
q-value: 100

AR303386

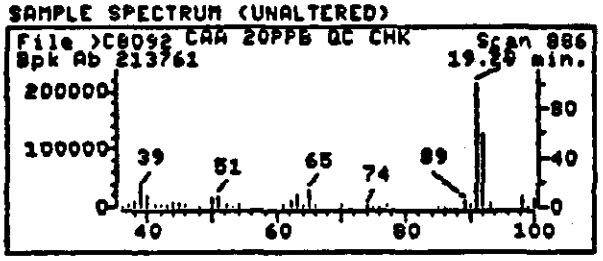
REFERENCE STANDARD SPECTRUM

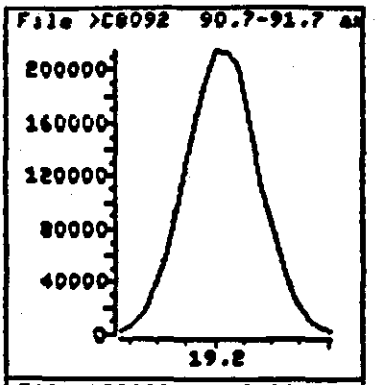


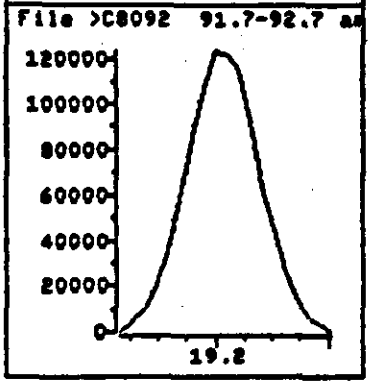
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





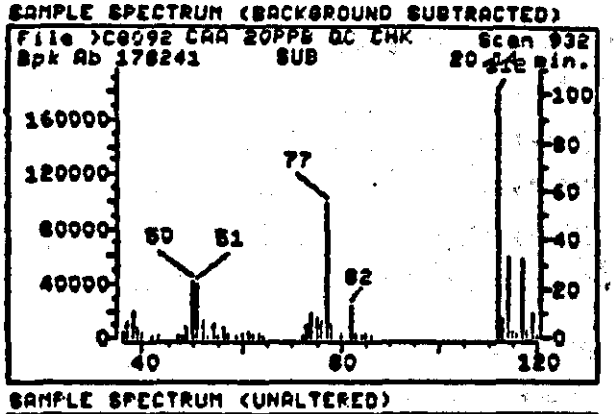


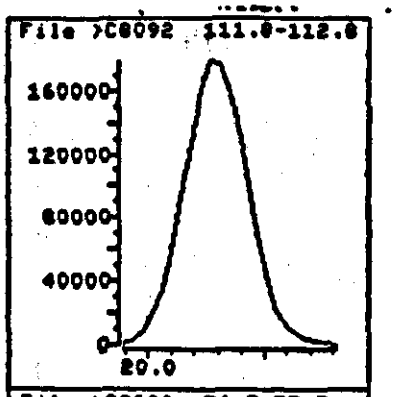
ORIGINAL (Red)

Data File: >C8092::UP
Name: CAA 20PPB QC CHK STD
Misc: ALS.1
Quant Time: 871002 09:51
Injected at: 871002 00:03

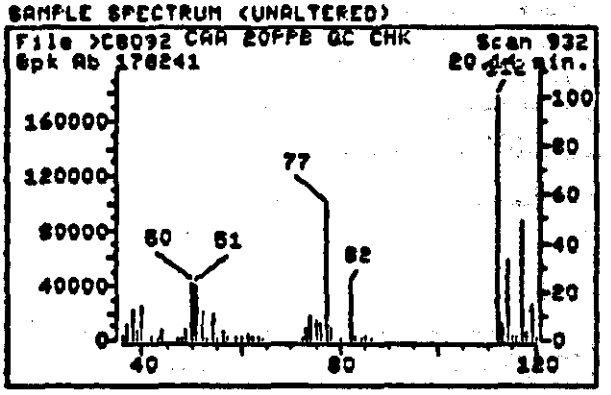
Compound No: 36
Compound Name: TOLUENE
Scan Number: 886
Retention Time: 19.20 min.
Area: 1158468
Concentration: 34.84 UG/L
q-value: 97

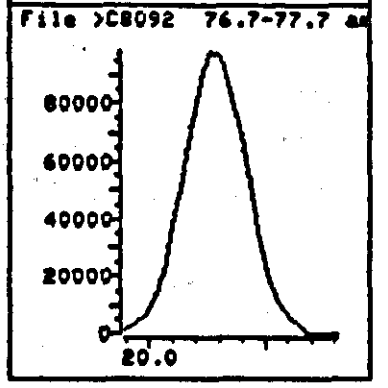
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





ORIGINAL (Red)

Data File: >C8092::UP
Name: CAA 20PPB QC CHK STD
Misc: ALS.1
Quant Time: 871002 09:51
Injected at: 871002 00:03

Compound No: 37
Compound Name: CHLOROBENZENE
Scan Number: 932
Retention Time: 20.14 min.
Area: 1745462
Concentration: 39.47 UG/L
q-value: 80

Sample Number
SC-E M-D

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc. Case No: 8709208

Lab Sample ID No: 8709208-01 MD QC Report No:

Sample Matrix: Water Contract No: 68-01-7278

Data Release Authorized By: Rona Marquis Date Sample Received: 9/24/87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 10/1/87

Date Analyzed: 10/1/87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted) N/A

CAS Number		ug/(L or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
[illegible]-09-2	Methylene Chloride	NR
67-64-1	Acetone	NR
75-15-0	Carbon Disulfide 3750	~~8~~ 3750
75-35-4	1,1-Dichloroethene	NR
75-34-3	1,1-Dichloroethane	NR
156-60-5	Trans-1,2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1,2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1,1,1-Trichloroethane	NR
[illegible]3-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/(L or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	NR
10061-02-6	Trans-1,3-Dichloropropene	NR
79-01-6	Trichloroethene	NR
124-48-1	Dibromochloromethane	NR
79-00-5	1,1,2-Trichloroethane	NR
71-43-2	Benzene	NR
10061-01-5	cis-1,3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1,1,2,2-Tetrachloroethane	NR
108-88-3	Toluene	NR
108-90-7	Chlorobenzene	NR
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be stated.

- Value: If the result is a value greater than or equal to the detection limit, report the value.
- U: Indicates compound was analyzed for but not detected. Report the detection limit for the sample with the U (e.g., 10U) based on all necessary concentration/dilution factors. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected." The number is the minimum detectable detection limit for the sample.

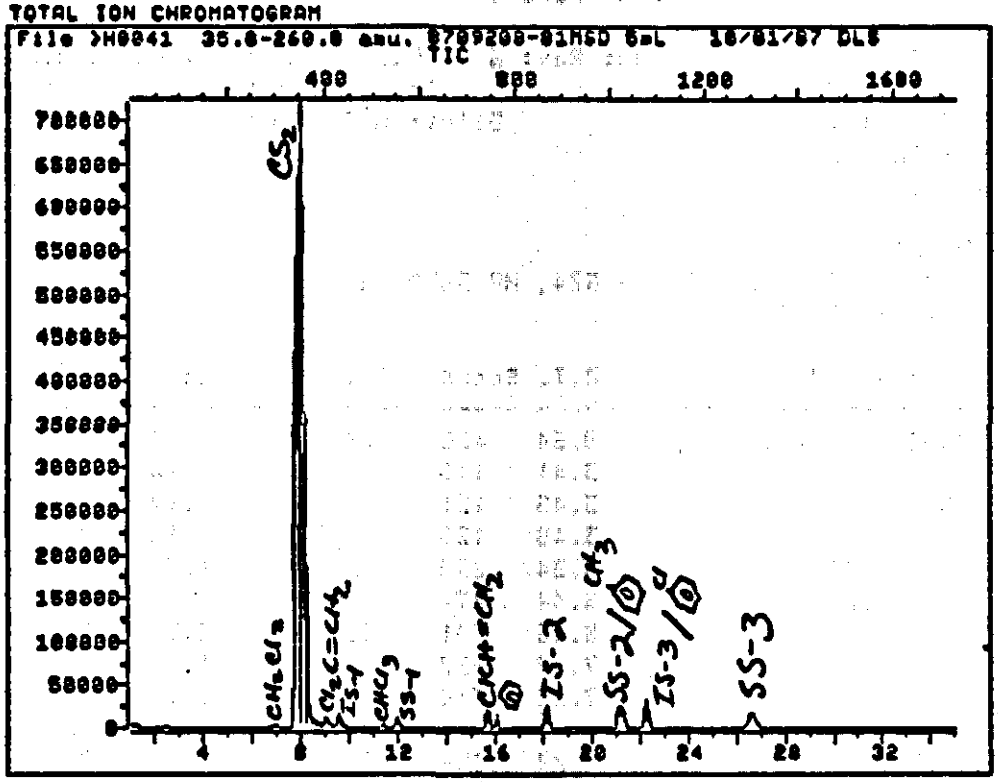
  Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (where a 1:1 response is assumed) or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 ug/l and a concentration of 2 ug/l is calculated, report as 2J.
- C: This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.
- B: This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- Other: Other laboratory flags and footnotes may be required to properly define the results. If used, they must be fully described and explained in the data summary report.

NR not reported

AR303389

AR303389

TOTAL ION CHROMATOGRAM



Data File: >H0041::H1 Quant Output File: ^H0041::QU
Name: 8709208-01MSD 5mL
Misc: 10/01/87 DLS

SC-E MSD

Id File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 870918 09:16

Operator ID: DENNIS
Quant Time: 871001 19:38
Injected at: 871001 18:57

rerun 1:100

AR303390

QUANT REPORT

ORIGINAL
Red

Operator ID: DENNIS Quant Rev: 6 Quant Time: 871001 19:38
Output File: ^H0041::QU Injected at: 871001 18:57
Data File: >H0041::H1 Dilution Factor: 1.00000
Name: 8709208-01MSD 5mL
Misc: 10/01/87 DLS

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 870918 09:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	•BROMOCHLOROMETHANE IS-1	9.54	426	24203	50.00	UG/L	100
5)	CHLOROETHANE	3.41	119	38	.14	UG/L	100
5)	CHLOROETHANE	3.45	121	46	.17	UG/L	100
5)	CHLOROETHANE	3.49	123	33	.12	UG/L	100
6)	METHYLENE CHLORIDE	6.34	269	969	1.52	UG/L	100
6)	METHYLENE CHLORIDE	6.44	274	116	.18	UG/L	100
7)	ACETONE	6.96	301	13909	159.78	UG/L	100
7)	ACETONE	7.37	322	171	1.96	UG/L	100
7)	ACETONE	7.53	330	100	1.15	UG/L	100
8)	CARBON DISULFIDE	8.00	354	5534023M	3734.87	UG/L	100
8)	CARBON DISULFIDE	8.22	358	863461	493.56	UG/L	100
9)	1,1-DICHLOROETHENE	9.08	402	17774	24.71	UG/L	94
12)	CHLOROFORM	11.42	522	13274	7.40	UG/L	96
14)	D4-1,2-DICHLOROETHANE (SS-1)	11.95	549	35311	101.05	UG/L	94
15)	•1,4-DIFLUOROBENZENE IS-2	18.14	866	85905	50.00	UG/L	100
23)	TRICHLOROETHENE	15.66	739	33041	29.06	UG/L	96
26)	BENZENE	16.07	760	57918	30.17	UG/L	100
30)	•D5-CHLOROBENZENE IS-3	22.21	1074	73272	50.00	UG/L	100
31)	4-METHYL-2-PENTANONE	18.75	897	273	.59	UG/L	89
35)	D-8 TOLUENE (SS-2)	21.13	1019	79584	104.65	UG/L	83
36)	TOLUENE	21.29	1027	40269	32.20	UG/L	98
37)	CHLOROBENZENE	22.32	1080	59122	34.56	UG/L	89
39)	BROMOFLUOROBENZENE (SS-3)	26.60	1299	65715	96.85	UG/L	93

• Compound is ISTD

AR303391

ORIGINAL (Red)

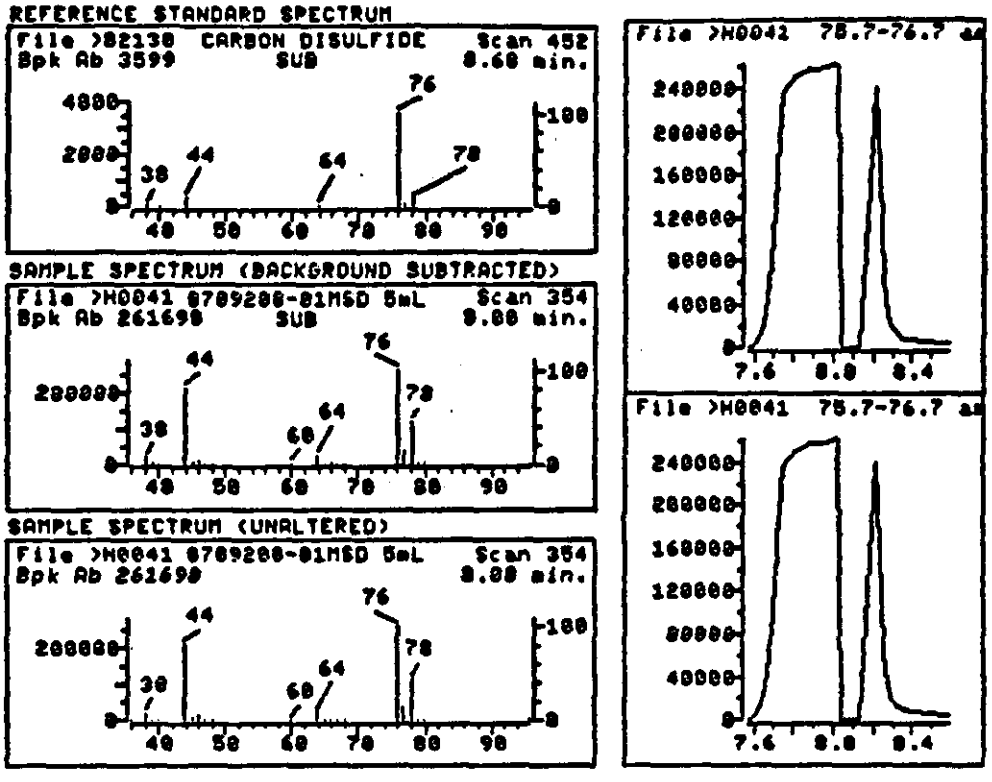
QUANT REPORT

Operator ID: DENNIS Quant Rev: 6 Quant Time: 871001 19:38
Output File: ^H0041::QU Injected at: 871001 18:57
Data File: >H0041::H1 Dilution Factor: 1.00000
Name: 8709208-01MSD 5mL
Misc: 10/01/87 DLS

ID File: HVOAID::P1
Title: VOLATILE ORGANIC ANALYSIS EPA 624, HP 5970 'H'
Last Calibration: 870918 09:16

	Compound	R.T.	Scan#	Area	Conc	Units	q
6)	METHYLENE CHLORIDE	6.34	269	969	1.52	UG/L	100
7)	ACETONE	6.96	301	13909	159.78	UG/L	100
8)	CARBON DISULFIDE	8.00	354	6534023M	3734.87	UG/L	100
9)	1,1-DICHLOROETHENE	9.08	402	17774	24.71	UG/L	94
12)	CHLOROFORM	11.42	522	13274	7.40	UG/L	96
23)	TRICHLOROETHENE	15.66	739	33041	29.06	UG/L	96
26)	BENZENE	16.07	760	57918	30.17	UG/L	100
36)	TOLUENE	21.29	1027	40269	32.20	UG/L	98
37)	CHLOROBENZENE	22.32	1080	59122	34.56	UG/L	89

AR303392

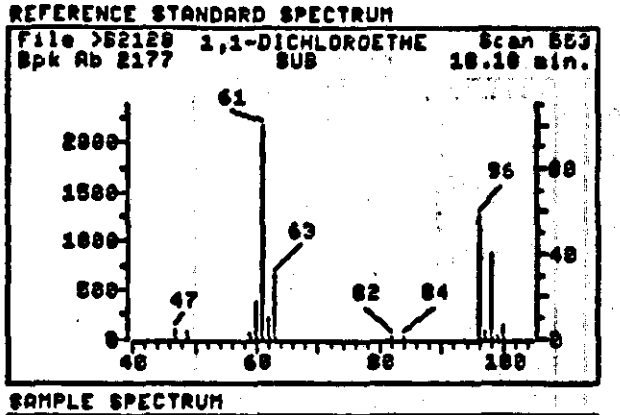


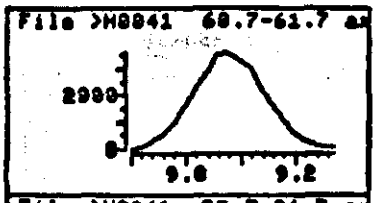
ORIGINAL (Red)

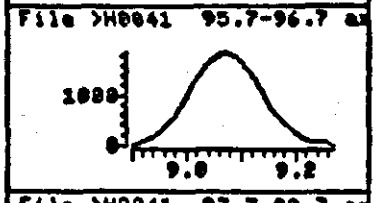
Data File: >H0041::H1 Quant Output File: ^H0041::QU
Name: 8709208-01MSD 5mL
Misc: 10/01/87 DLS
Quant Time: 871001 19:38 Quant ID File: HVOAID::P1
Injected at: 871001 18:57 Last Calibration: 870918 09:16

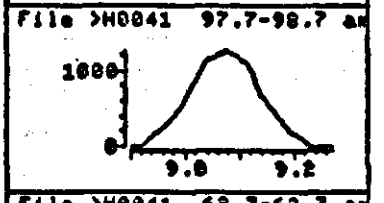
Compound No: 8
Compound Name: CARBON DISULFIDE
Scan Number: 354
Retention Time: 8.00 min.
Quant Ion: 76.0
Area: 6534023M
Concentration: 3734.87 UG/L
q-value: 100

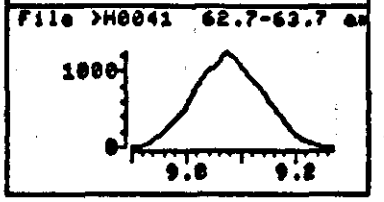
REFERENCE STANDARD SPECTRUM



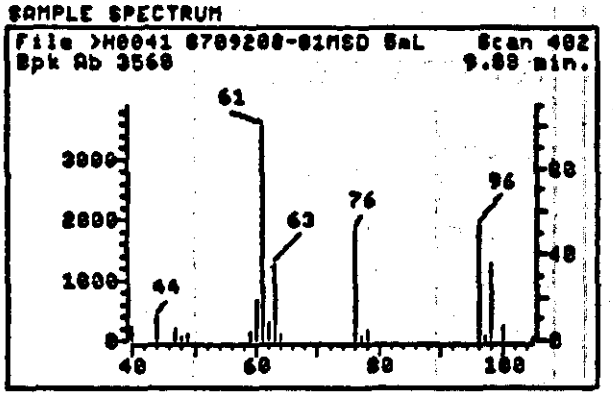








SAMPLE SPECTRUM



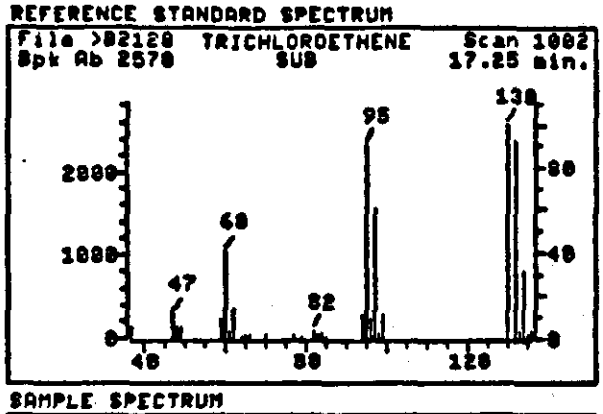
ORIGINAL

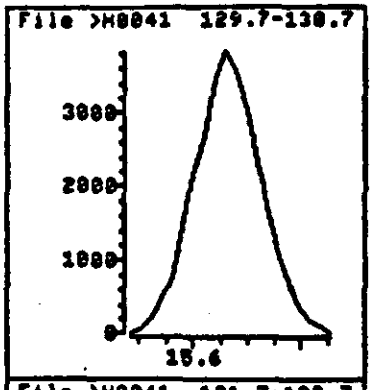
Data File: >H0041::H1 Quant Output File: ^H0041::QU
Name: 8709208-01MSD 5mL
Misc: 10/01/87 DLS
Quant Time: 871001 19:38 Quant ID File: HVOAID::P1
Injected at: 871001 18:57 Last Calibration: 870918 09:16

Compound No: 9
Compound Name: 1,1-DICHLOROETHENE
Scan Number: 402
Retention Time: 9.08 min.
Quant Ion: 96.0
Area: 17774
Concentration: 24.71 UG/L
q-value: 94

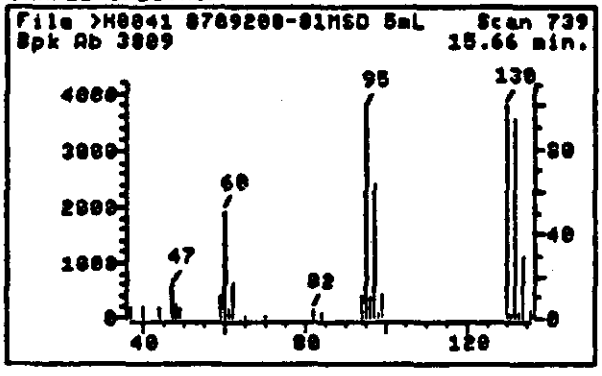
✓

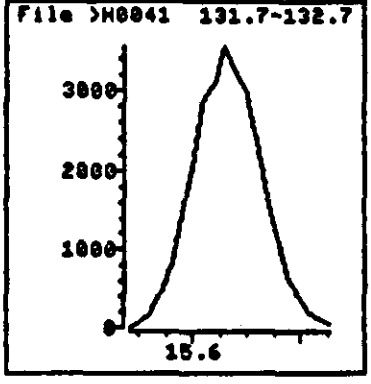
REFERENCE STANDARD SPECTRUM





SAMPLE SPECTRUM





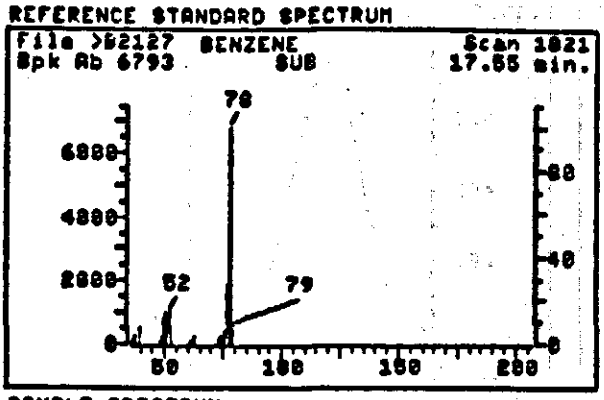
Data File: >H0041::H1
Name: 8709208-01MSD 5mL
Misc: 10/01/87 DLS
Quant Time: 871001 19:38
Injected at: 871001 18:57

Quant Output File: ^H0041::QU

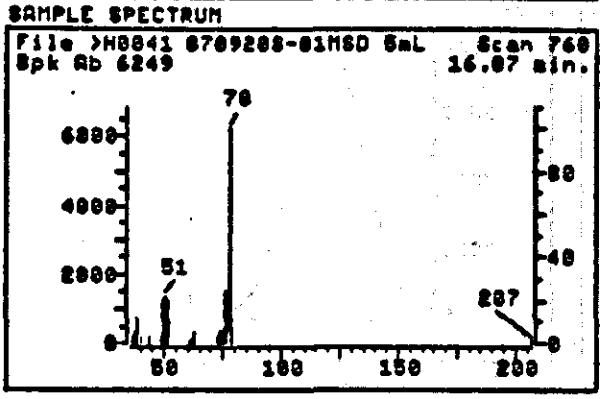
Quant ID File: HVOAID::P1
Last Calibration: 870918 09:16

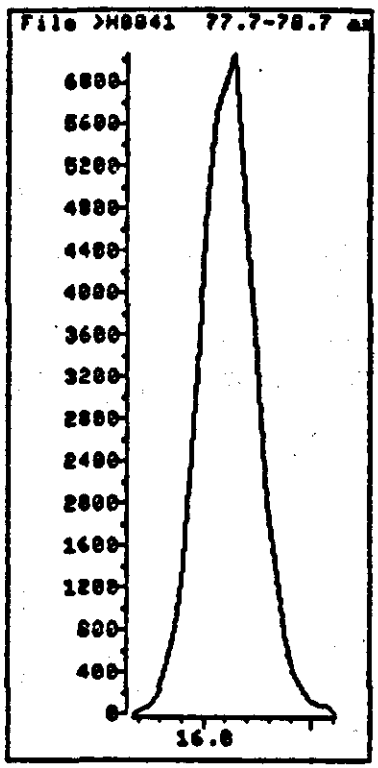
Compound No: 23
Compound Name: TRICHLOROETHENE
Scan Number: 739
Retention Time: 15.66 min.
Quant Ion: 130.0
Area: 33041
Concentration: 29.06 UG/L
q-value: 96

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM



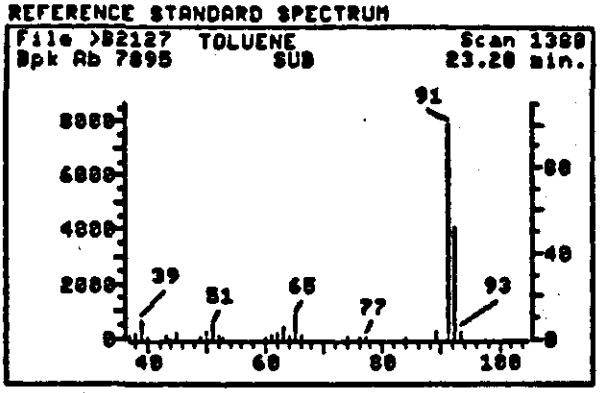


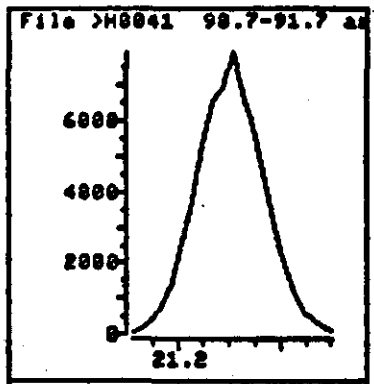
Data File: >H0041::H1
Name: 8709208-01MSD 5mL
Misc: 10/01/87 DLS
Quant Time: 871001 19:38
Injected at: 871001 18:57

Quant Output File: ^H0041::QU
Quant ID File: HVOAID::P1
Last Calibration: 870918 09:16

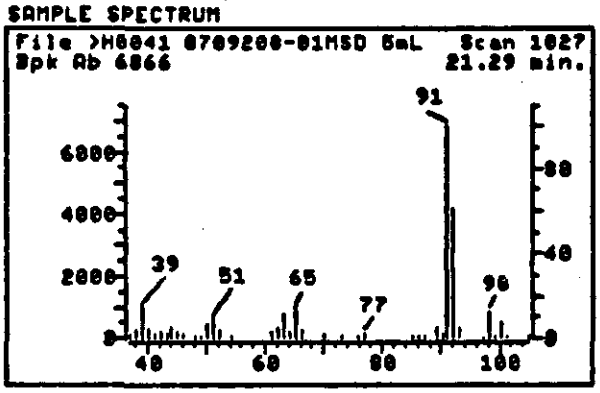
Compound No: 26
Compound Name: BENZENE
Scan Number: 760
Retention Time: 16.07 min.
Quant Ion: 78.0
Area: 57918
Concentration: 30.17 UG/L
q-value: 100

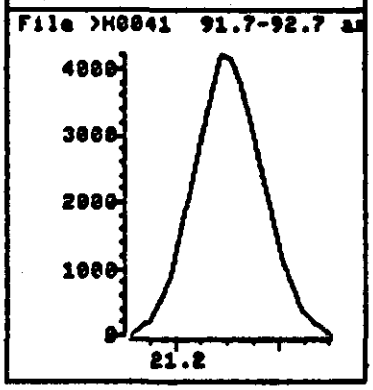
REFERENCE STANDARD SPECTRUM





SAMPLE SPECTRUM





Data File: >H0041::H1
Name: 8709208-01MSD 5mL
Misc: 10/01/87 DLS
Quant Time: 871001 19:38
Injected at: 871001 18:57

Quant Output File: ^H0041::QU

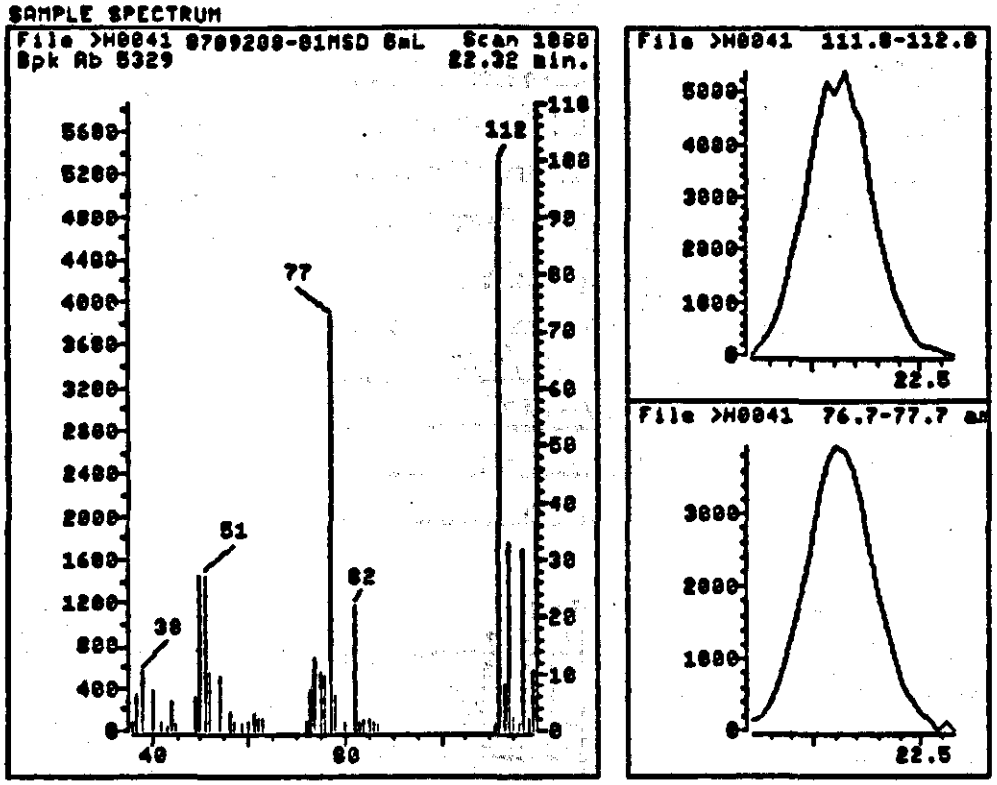
Quant ID File: HVOAID::P1
Last Calibration: 870918 09:16

Compound No: 36
Compound Name: TOLUENE
Scan Number: 1027
Retention Time: 21.29 min.
Quant Ion: 92.0
Area: 40269
Concentration: 32.20 UG/L
q-value: 98

AR303397

AR303397

SAMPLE SPECTRUM



ORIGINAL (red)

Data File: >H0041::H1 Quant Output File: ^H0041::QU
Name: 8709208-01MSD 5mL
Misc: 10/01/87 DLS
Quant Time: 871001 19:38 Quant ID File: HVOAID::P1
Injected at: 871001 18:57 Last Calibration: 870918 09:16

Compound No: 37
Compound Name: CHLOROBENZENE
Scan Number: 1080
Retention Time: 22.32 min.
Quant Ion: 112.1
Area: 59122
Concentration: 34.56 UG/L
q-value: 89

AR303398

Sample Number
TC-1 MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc. Case No: 8710034
Lab Sample ID No: 8710034-03 MSD QC Report No:
Sample Matrix: Water Contract No: 68-01-7278
Data Release Authorized By: Rona Marquis Date Sample Received: 10/2/87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 10/4/87
Date Analyzed: 10/9/87
Conc/Dil Factor: 1:10 pH
Percent Moisture: (Not Decanted) N/A

CAS Number		ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
75-09-2	Methylene Chloride	NR
67-64-1	Acetone	NR
75-15-0	Carbon Disulfide	NR
75-35-4	1,1-Dichloroethene	NR
75-34-3	1,1-Dichloroethane	NR
156-60-5	Trans-1,2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1,2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1,1,1-Trichloroethane	NR
56-23-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/L or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	NR
10061-02-6	Trans-1,3-Dichloropropene	NR
79-01-6	Trichloroethene	NR
124-48-1	Dibromochloromethane	NR
79-00-5	1,1,2-Trichloroethane	NR
71-43-2	Benzene	NR
10061-01-5	cis-1,3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1,1,2,2-Tetrachloroethane	NR
108-88-3	Toluene	NR
108-90-7	Chlorobenzene	NR
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the sample detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the compound's adjusted detection limit for the sample."

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (where a 1:1 response is assumed) or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/L and a concentration of 3 µg/L is calculated, report as 3J.

B — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/mL in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

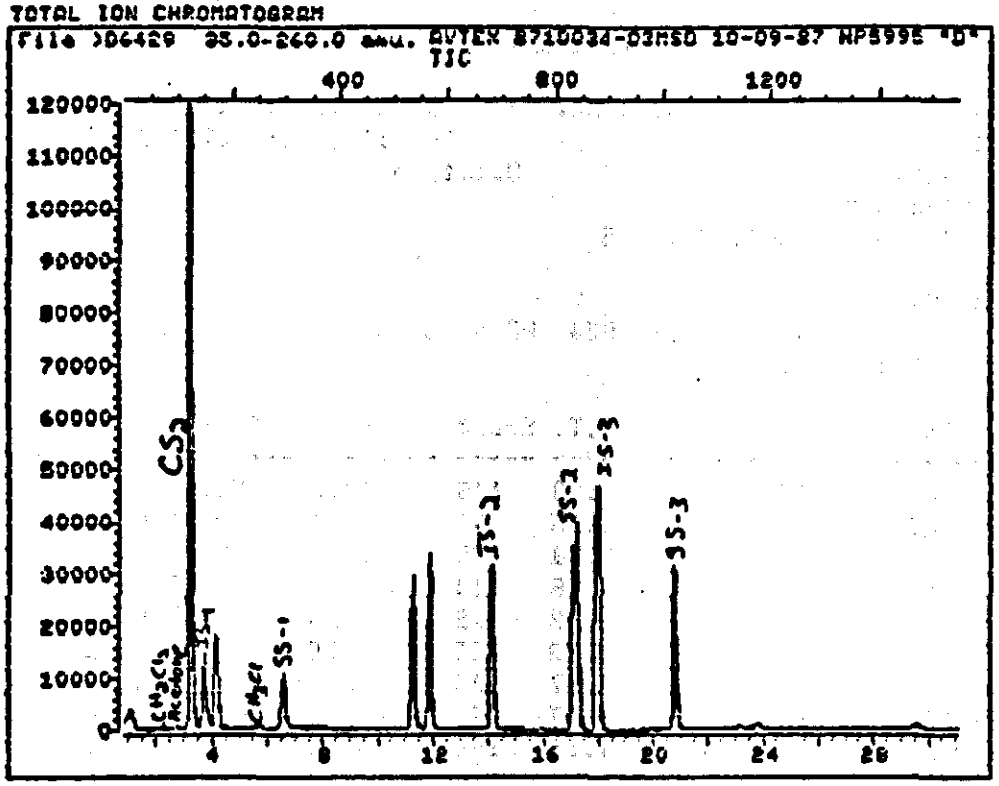
Other — Other laboratory flags and footnotes may be required to properly define the results. If used, they must be fully described and their application consistent. The data summary report.

NR not reported

AR303399

AR303399

TOTAL ION CHROMATOGRAM



Data File: >D6429::D2
Name: AVTEX 8710034-03MSD
Misc: 10-09-87 HP5995 "D" ALS.10 .5MLS

TC-1-MS2

Id File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871014 09:31

Operator ID: MARK
Quant Time: 871014 09:34
Injected at: 871010 23:05

Rerun 1:50

AR303400

AR303400

ORIGINAL (Red)

QUANT REPORT

Operator ID: MARK Quant Rev: 4 Quant Time: 871014 09:34
Output File: ^D6429::D2 Injected at: 871010 23:05
Data File: >D6429::D2 Dilution Factor: 1.00
Name: AVTEX 8710034-03MSD
Misc: 10-09-87 HP5995 "D" ALS.10 .5MLS

ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871014 09:31

	Compound	R.T.	Scan#	Area	Conc	Units	q	
1)	*BROMOCHLOROMETHANE IS-1	3.68	146	24372	50.00	UG/L	87	
6)	METHYLENE CHLORIDE	2.25	73	1794	2.89	UG/L	100	✓
7)	ACETONE	2.68	95	2461	7.00	UG/L	100	✓
7)	ACETONE	3.06	114	60	.17	UG/L	100	
7)	ACETONE	3.09	116	25	.07	UG/L	100	
7)	ACETONE	3.29	126	86	.24	UG/L	100	
7)	ACETONE	3.37	130	26	.07	UG/L	100	
8)	CARBON DISULFIDE	3.17	120	509503	398.26	UG/L	100	✓
9)	1,1-DICHLOROETHENE	4.11	168	28233	41.63	UG/L	98	
12)	CHLOROFORM	5.65	247	3127	2.22	UG/L	98	✓
14)	D4-1,2-DICHLOROETHANE (SS-1)	6.55	293	42948	101.96	UG/L	93	
15)	*1,4-DIFLUOROBENZENE IS-2	14.07	678	91717	50.00	UG/L	100	
20)	BROMODICHLOROMETHANE	11.26	534	503	.82	UG/L	92	
23)	TRICHLOROETHENE	11.24	533	39290	44.29	UG/L	88	
26)	BENZENE	11.85	564	105475	46.55	UG/L	100	
26)	BENZENE	12.34	589	93	.04	UG/L	100	
26)	BENZENE	12.43	594	55	.02	UG/L	100	
30)	*D5-CHLOROBENZENE IS-3	17.88	873	73470	50.00	UG/L	100	
35)	D-8 TOLUENE (SS-2)	17.06	831	91506	103.26	UG/L	85	
36)	TOLUENE	17.22	839	66167	47.67	UG/L	95	
37)	CHLOROBENZENE	17.98	878	84539	52.16	UG/L	92	
39)	BROMOFLUOROBENZENE (SS-3)	20.78	1021	49879	102.93	UG/L	82	

* Compound is ISTD

ORIGINAL (Red)

QUANT REPORT

Operator ID: MARK Quant Rev: 4 Quant Time: 871014 09:34
Output File: ^D6429::D2 Injected at: 871010 23:05
Data File: >D6429::D2 Dilution Factor: 1.00
Name: AVTEX 8710934-03MSD
Misc: 10-09-87 HP5995 "D" ALS.10 .5MLS

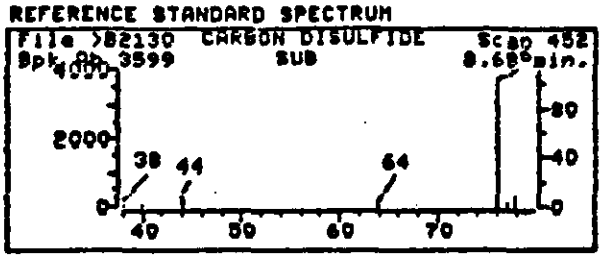
ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871014 09:31

	Compound	R.T.	Scan#	Area	Conc	Units	q
6)	METHYLENE CHLORIDE	2.25	73	1794	2.89	UG/L	100
7)	ACETONE	2.68	95	2461	7.00	UG/L	100
8)	CARBON DISULFIDE	3.17	120	609503	398.26	UG/L	100
12)	CHLOROFORM	5.65	247	3127	2.22	UG/L	98

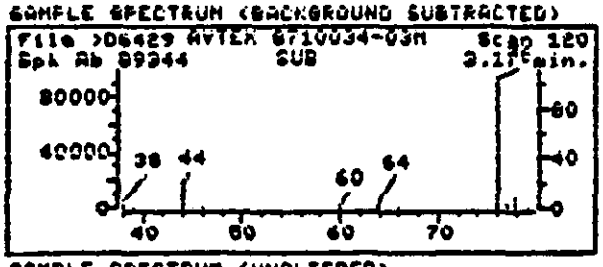
AR303402

ORIGINAL (red)

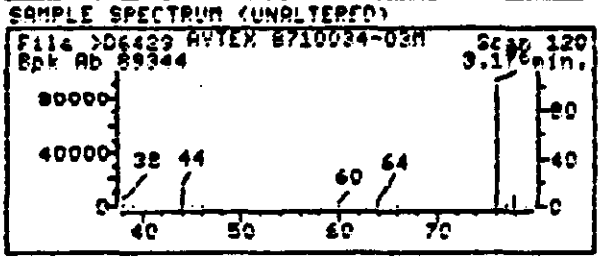
REFERENCE STANDARD SPECTRUM

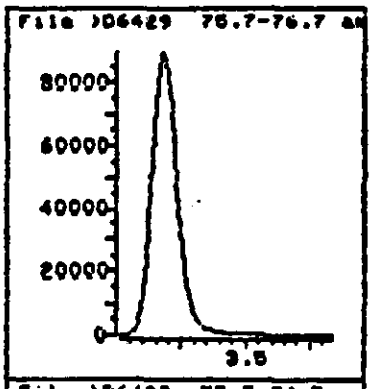


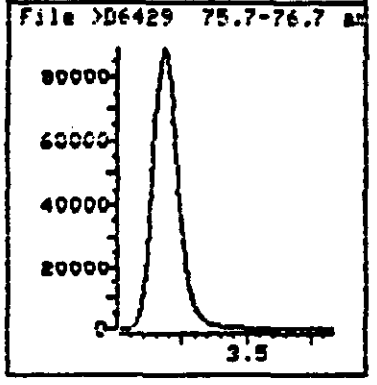
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >D6429::D2
Name: AVTEX 8710034-03MSD
Misc: 10-09-87 HP5995 "D" ALS.10 .5MLS
Quant Time: 871014 09:34
Injected at: 871010 23:05

Compound No: 8
Compound Name: CARBON DISULFIDE
Scan Number: 120
Retention Time: 3.17 min.
Area: 609503
Concentration: 398.26 UG/L
q-value: 100

✓

AR303403

Sample Number
TC-1 MSD
Rerun

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Cambridge Analytical Assoc. Case No: 8710034

Lab Sample ID No: 8710034-03 MSD QC Report No:

Sample Matrix: Water Contract No: 68-01-7278

Data Release Authorized By: Rose Marquis Date Sample Received: 10/2/87 ORIGINAL (Red)

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 10/20/87

Date Analyzed: 10/20/87

Conc/Dil Factor: 1:100 pH

Percent Moisture: (Not Decanted) N/A

CAS Number		ug/L or ug/Kg (Circle One)
74-87-3	Chloromethane	NR
74-83-9	Bromomethane	NR
75-01-4	Vinyl Chloride	NR
75-00-3	Chloroethane	NR
75-09-2	Methylene Chloride	NR
64-1	Acetone	NR
15-0	Carbon Disulfide	15 J 500
75-35-4	1,1-Dichloroethene	NR
75-34-3	1,1-Dichloroethane	NR
156-60-5	Trans-1,2-Dichloroethene	NR
67-66-3	Chloroform	NR
107-06-2	1,2-Dichloroethane	NR
78-93-3	2-Butanone	NR
71-55-6	1,1,1-Trichloroethane	NR
56-23-5	Carbon Tetrachloride	NR
108-05-4	Vinyl Acetate	NR
75-27-4	Bromodichloromethane	NR

CAS Number		ug/L or ug/Kg (Circle One)
78-87-5	1,2-Dichloropropane	NR
10061-02-6	Trans-1,3-Dichloropropene	NR
79-01-6	Trichloroethene	NR
124-48-1	Dibromochloromethane	NR
79-00-5	1,1,2-Trichloroethane	NR
71-43-2	Benzene	NR
10061-01-5	cis-1,3-Dichloropropene	NR
110-75-8	2-Chloroethylvinylether	NR
75-25-2	Bromoform	NR
108-10-1	4-Methyl-2-Pentanone	NR
591-78-6	2-Hexanone	NR
127-18-4	Tetrachloroethene	NR
79-34-5	1,1,2,2-Tetrachloroethane	NR
108-88-3	Toluene	NR
108-90-7	Chlorobenzene	NR
100-41-4	Ethylbenzene	NR
100-42-5	Styrene	NR
	Total Xylenes	NR

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explained.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the sample detection limit for the sample with the U (i.e., 10U) based on the appropriate concentration/dilution factor. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the quantitation/sample detection limit for the sample."

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds (where a 1:1 response is assumed) or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (i.e., 10J). If limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, report as 3J.

C This flag applies to pesticide/PCB analytes where the identification has been confirmed by GC/MS. Single component analytes ≥ 10 ng/ml in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

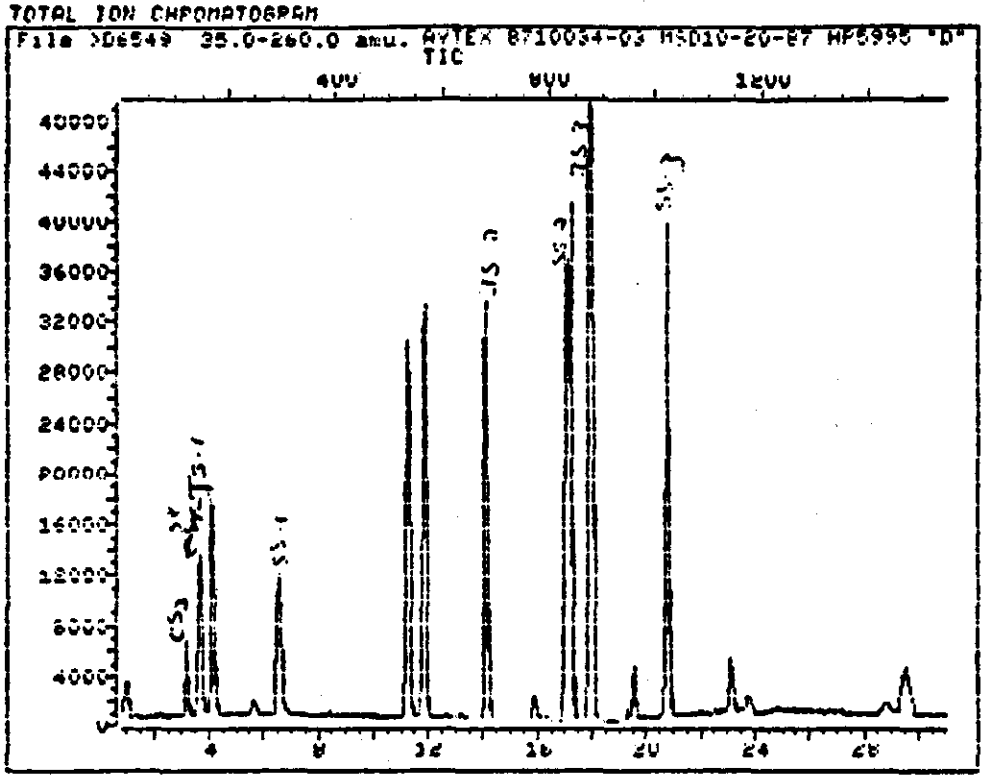
Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

NR not reported

AR303404

9

TOTAL ION CHROMATOGRAM



ORIGINAL (Red)

Date File: >D6545::D2 TC-1 A(1)
Name: AVTEX 8710034-03 MSD
Misc: 10-20-87 HP5995 "D" ALS 2 100

Id File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871020 05:45

Operator ID: MANAGER
Quant Time: 871020 13:35
Injected at: 871020 13:01

QUANT REPORT

ORIGINAL (Red)

Operator ID: MANAGER Quant Rev: 4 Quant Time: 871020 13:39
Output File: *D6549::4S Injected at: 871020 13:01
Data File: >D6549::D2 Dilution Factor: 1.00
Name: AVTEX 8710034-03 MSD
Misc: 10-20-87 HP5995 "D" AL5 2 100

ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871020 09:45

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE IS-1	3.63	144	20523	50.00	UG/L	65
6)	METHYLENE CHLORIDE	2.22	72	407	.85	UG/L	100
6)	METHYLENE CHLORIDE	2.28	75	45	.09	UG/L	100
7)	ACETONE	2.45	84	155	.66	UG/L	100
7)	ACETONE	2.67	95	988	4.12	UG/L	100
7)	ACETONE	3.12	118	174	.73	UG/L	100
7)	ACETONE	3.20	122	138	.58	UG/L	100
7)	ACETONE	3.27	126	177	.74	UG/L	100
8)	CARBON DISULFIDE	3.16	120	29445	25.24	UG/L	100
8)	CARBON DISULFIDE	3.51	136	32	.03	UG/L	100
9)	1,1-DICHLOROETHENE	4.09	168	28367	47.66	UG/L	97
12)	CHLOROFORM	5.66	248	4184	3.05	UG/L	57
14)	D4-1,2-DICHLOROETHANE (SS-1)	6.54	293	45858	100.24	UG/L	92
15)	*1,4-DIFLUOROBENZENE IS-2	14.06	675	56644	50.00	UG/L	100
18)	2-BUTANONE (MEK)	6.45	269	506	1.45	UG/L	1
20)	BROMODICHLOROMETHANE	11.25	533	211	.37	UG/L	50
23)	TRICHLOROETHENE	11.25	534	40398	48.48	UG/L	50
26)	BENZENE	11.65	565	105426	50.71	UG/L	100
26)	BENZENE	12.32	565	66	.04	UG/L	100
26)	BENZENE	12.38	592	76	.04	UG/L	100
26)	BENZENE	12.44	595	31	.01	UG/L	100
30)	*D5-CHLOROBENZENE IS-3	17.67	873	87973	50.00	UG/L	100
32)	2-HEXANONE	15.86	771	1854	2.52	UG/L	67
35)	D-8 TOLUENE (SS-2)	17.05	831	96254	101.09	UG/L	66
36)	TOLUENE	17.21	839	65804	46.63	UG/L	95
37)	CHLOROBENZENE	17.97	876	85052	53.22	UG/L	95
39)	BROMOFLUOROBENZENE (SS-3)	20.76	1021	60547	100.77	UG/L	60
41)	M-XYLENE	20.74	1020	64	.09	UG/L	1
42)	O-XYLENE	20.74	1020	64	.03	UG/L	1

* Compound is ISTD

AR303406

ORIGINAL (Red)

QUANT REPORT

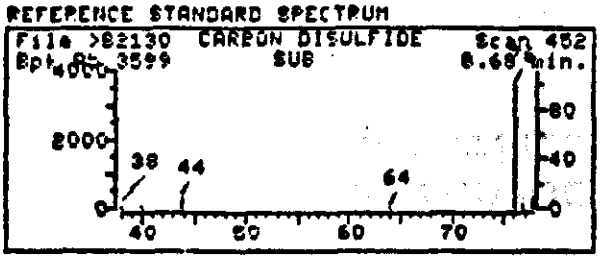
Operator ID: MANAGER Quant Rev: 4 Quant Time: 871020 13:39
Output File: ^D6549::49 Injected at: 871020 13:01
Data File: >D6549::D2 Dilution Factor: 1.00
Name: AUTEX 8710034-03 MSD
Misc: 10-20-87 HP5995 "D" ALS 2 100

ID File: VOA624::D1
Title: VOLATILE ORGANIC ANALYSIS EPA 624 HP 5995 "D"
Last Calibration: 871020 09:49

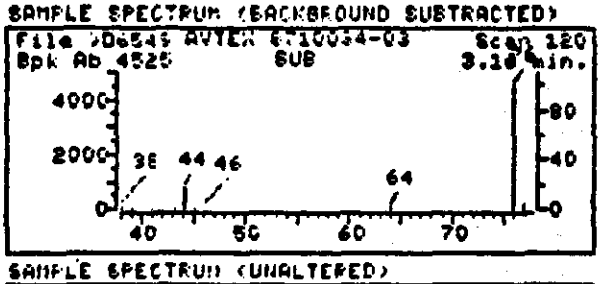
	Compound	R.T.	Scan#	Area	Conc	Units	q
7)	ACETONE	2.67	95	568	4.12	UG/L	100
8)	CARBON DISULFIDE	3.16	120	29445	25.24	UG/L	100
12)	CHLOROFORM	5.66	248	4184	3.06	UG/L	97
16)	2-BUTANONE (MEK)	6.46	289	506	1.45	UG/L	1
32)	2-HEXANONE	15.88	771	1854	2.92	UG/L	67

AR303407

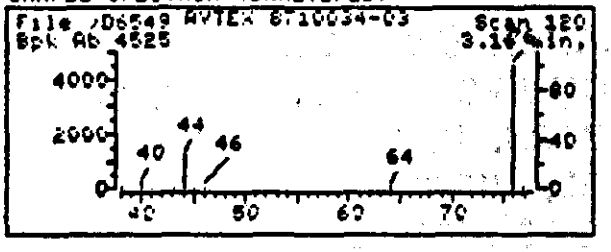
REFERENCE STANDARD SPECTRUM

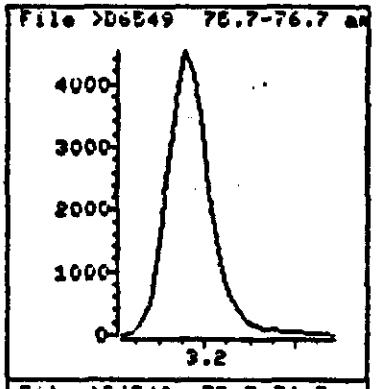


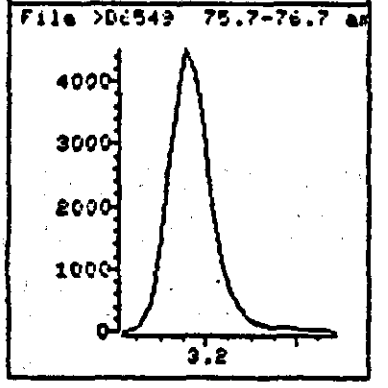
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







ORIGINAL (Red)

Date File: >D6549::D2
Name: AVTEX 8710034-03 MSD
Misc: 10-20-87 HP5995 "D" AL5 2 100
Quant Time: 871020 13:39
Injected at: 871020 13:01

Compound No: 8
Compound Name: CARBON DISULFIDE
Scan Number: 120
Retention Time: 3.16 min.
Area: 29445
Concentration: 25.24 UG/L
q-value: 100

AR303408

FIELD INVESTIGATION
SUMMARY DOCUMENT

ADMINISTRATIVE ORDER ON CONSENT
REMEDIAL INVESTIGATION / FEASIBILITY STUDY
AVTEX FIBERS, INC.
FRONT ROYAL, VIRGINIA
EPA I.D. NO. VAD 070358684

FEBRUARY 1988

GERAGHTY & MILLER, INC.
Ground-Water Consultants