NUS CORPORATION
A Halliburton Company

Breslube-Penn, Inc
S.I. report: 8803-40
Appendices.

ORIGINAL
(Red)

367643

FIELD INVESTIGATION TEAM ACTIVITIES AT UNCONTROLLED HAZARDOUS SUBSTANCES FACILITIES — ZONE I

NUS CORPORATION
SUPERFUND DIVISION

BPDR 0017628

ORIGINAL
(Red

APPENDIX B

WESTON

ORIGINAL
(Red)

Appendix C

Results as Reported by the Laboratory for All Target Compounds

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. ORIGINAL (Red)

CX921RE

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10598 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225389

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C2R25389A14

Level: (low/med) MED Date Received: 10/28/88

% Moisture: not dec. 19 Date Analyzed: 11/06/88

Column: (pack/cap) PACK Dilution Factor: 1.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	2600	U
74-83-9	Bromomethane	2600	U
75-01-4	Vinyl Chloride	2600	U
75-00-3	Chloroethane	2600	U
75-09-2	Methylene Chloride	770	BDJ
67-64-1	Acetone	3500	D
75-15-0	Carbon Disulfide	1300	U
75-35-4	1,1-Dichloroethene	1300	U
75-34-3	1,1-Dichloroethane	810	DJ
540-59-0	1,2-Dichloroethene (total)	1300	U
67-66-3	Chloroform	1300	U
107-06-2	1,2-Dichloroethane	1300	U
78-93-3	2-Butanone	1800	DJ
71-55-6	1,1,1-Trichloroethane	3300	D
56-23-5	Carbon Tetrachloride	1300	U
108-05-4	Vinyl Acetate	2600	U
75-27-4	Bromodichloromethane	1300	U
78-87-5	1,2-Dichloropropane	1300	U
10061-01-5	cis-1,3-Dichloropropene	1300	U
79-01-6	Trichloroethene	3800	D
124-48-1	Dibromochloromethane	1300	U
79-00-5	1,1,2-Trichloroethane	1300	U
71-43-2	Benzene	1700	D
10061-02-6	Trans-1,3-Dichloropropene	1300	U
75-25-2	Bromoform	1300	U
108-10-1	4-Methyl-2-Pentanone	2600	U
591-78-6	2-Hexanone	2600	U
127-18-4	Tetrachloroethene	5100	D
79-34-5	1,1,2,2-Tetrachloroethane	1300	U
108-88-3	Toluene	32000	D
108-90-7	Chlorobenzene	1300	U
100-41-4	Ethylbenzene	6100	D
100-42-5	Styrene	1300	U
1330-20-7	Total Xylenes	30000	

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SAMPLE DATA SUMMARY

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

CX921

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225389 (Reg)

Sample wt/vol: 1.0 (g/mL) G Lab File ID: GH025389B22

Level: (low/med) MED Date Received: 10/28/88

% Moisture: not dec. 19 dec. ____ Date Extracted: 11/07/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/18/88

GPC Cleanup: (Y/N) N pH: 8.1 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	5900	J
111-44-4	bis(2-Chloroethyl)Ether	24000	U
95-57-8	2-Chlorophenol	24000	U
541-73-1	1,3-Dichlorobenzene	24000	U
106-46-7	1,4-Dichlorobenzene	24000	U
100-51-6	Benzyl Alcohol	24000	U
95-50-1	1,2-Dichlorobenzene	3200	J
95-48-7	2-Methylphenol	24000	U
39638-32-9	bis(2-Chloroisopropyl)Ether	24000	U
106-44-5	4-Methylphenol	4900	J
621-64-7	N-Nitroso-Di-n-Propylamine	24000	U
67-72-1	Hexachloroethane	24000	U
98-95-3	Nitrobenzene	24000	U
78-59-1	Isophorone	7300	J
88-75-5	2-Nitrophenol	24000	U
105-67-9	2,4-Dimethylphenol	7200	J
65-85-0	Benzoic Acid	120000	U
111-91-1	bis(2-Chloroethoxy)Methane	24000	U
120-83-2	2,4-Dichlorophenol	6600	J
120-82-1	1,2,4-Trichlorobenzene	7400	J
91-20-3	Naphthalene	57000	
106-47-8	4-Chloroaniline	24000	U
87-68-3	Hexachlorobutadiene	24000	U
59-50-7	4-Chloro-3-Methylphenol	24000	U
91-57-6	2-Methylnaphthalene	48000	
77-47-4	Hexachlorocyclopentadiene	24000	U
88-06-2	2,4,6-Trichlorophenol	30000	
95-95-4	2,4,5-Trichlorophenol	120000	U
91-58-7	2-Chloronaphthalene	24000	U
88-74-4	2-Nitroaniline	120000	U
131-11-3	Dimethyl Phthalate	24000	U
208-96-8	Acenaphthylene	6600	J
606-20-2	2,6-Dinitrotoluene	24000	U

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SAMPLE DATA SUMMARY

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

CX921

ORIGINAL (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225389

Sample wt/vol: 1.0 (g/mL) G Lab File ID: GH025389B22

Level: (low/med) MED Date Received: 10/28/88

% Moisture: not dec. 19 dec. ____ Date Extracted: 11/07/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/18/88

GPC Cleanup: (Y/N) N pH: 8.1 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	120000	U
83-32-9	Acenaphthene	6200	J
51-28-5	2,4-Dinitrophenol	120000	U
100-02-7	4-Nitrophenol	120000	U
132-64-9	Dibenzofuran	8700	J
121-14-2	2,4-Dinitrotoluene	24000	U
84-66-2	Diethylphthalate	24000	U
7005-72-3	4-Chlorophenyl-phenylether	24000	U
86-73-7	Fluorene	15000	J
100-01-6	4-Nitroaniline	120000	U
534-52-1	4,6-Dinitro-2-Methylphenol	120000	U
86-30-6	N-Nitrosodiphenylamine (1)	24000	U
101-55-3	4-Bromophenyl-phenylether	24000	U
118-74-1	Hexachlorobenzene	24000	U
87-86-5	Pentachlorophenol	120000	U
85-01-8	Phenanthrene	43000	
120-12-7	Anthracene	5600	J
84-74-2	Di-n-Butylphthalate	24000	U
206-44-0	Fluoranthene	17000	J
129-00-0	Pyrene	15000	J
85-68-7	Butylbenzylphthalate	24000	U
91-94-1	3,3'-Dichlorobenzidine	49000	U
56-55-3	Benzo(a)Anthracene	8100	J
218-01-9	Chrysene	10000	J
117-81-7	bis(2-Ethylhexyl)Phthalate	88000	
117-84-0	Di-n-Octyl Phthalate	24000	U
205-99-2	Benzo(b)Fluoranthene	15000	JX
207-08-9	Benzo(k)Fluoranthene	15000	JX
50-32-8	Benzo(a)Pyrene	8500	J
193-39-5	Indeno(1,2,3-cd)Pyrene	24000	U
53-70-3	Dibenzo(a,h)Anthracene	24000	U
191-24-2	Benzo(g,h,i)Perylene	24000	U

(1) - Cannot be separated from Diphenylamine

X=indistinguishable isomer

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SAMPLE DATA SUMMARY 12c

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX921

ORIGINAL (Red)

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225389

Sample wt/vol: 30.0 (g/mL) G Lab File ID: PC025389B16

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 19 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/23/88

GPC Cleanup: (Y/N) N pH: 8.1 Dilution Factor: 20.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	200	U
319-85-7	beta-BHC	200	U
319-86-8	delta-BHC	200	U
58-89-9	gamma-BHC (Lindane)	200	U
76-44-8	Heptachlor	200	U
309-00-2	Aldrin	200	U
1024-57-3	Heptachlor epoxide	200	U
959-98-8	Endosulfan I	200	U
60-57-1	Dieldrin	400	U
72-55-9	4,4'-DDE	400	U
72-20-8	Endrin	400	U
33213-65-9	Endosulfan II	400	U
72-54-8	4,4'-DDD	400	U
1031-07-8	Endosulfan sulfate	400	U
50-29-3	4,4'-DDT	400	U
72-43-5	Methoxychlor	2000	U
53494-70-5	Endrin ketone	400	U
5103-71-9	alpha-Chlordane	2000	U
5103-74-2	gamma-Chlordane	2000	U
8001-35-2	Toxaphene	4000	U
12674-11-2	Aroclor-1016	2000	U
11104-28-2	Aroclor-1221	2000	U
11141-16-5	Aroclor-1232	2000	U
53469-21-9	Aroclor-1242	2000	U
12672-29-6	Aroclor-1248	2000	U
11097-69-1	Aroclor-1254	4000	U
11096-82-5	Aroclor-1260	9000	C

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SAMPLE DATA SUMMARY 83

ORIGINAL (Red)

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX921

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225389

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH025389B03

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 19 Date Analyzed: 11/01/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 9

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	ETHANE,1,1,2-TRICHLORO-1,2,2	13.15	47	J
2. 110-82-7	CYCLOHEXANE	15.35	26	J
3. 96-37-7	CYCLOPENTANE,METHYL-	16.10	9.9	J
4. 563-80-4	2-BUTANONE,3-METHYL-	16.82	11	J
5. 110-54-3	HEXANE	20.27	11	J
6.	UNKNOWN HYDROCARBON	23.59	14	J
7.	UNKNOWN	28.67	7.4	J
8.	UNKNOWN	42.09	61	J
9.	UNKNOWN HYDROCARBON	34.36	8.6	J

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SAMPLE DATA SUMMARY

ORIGINAL

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX921RE

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225389

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C2R25389A14

Level: (low/med) MED Date Received: 10/28/88

% Moisture: not dec. 19 Date Analyzed: 11/06/88

Column (pack/cap) PACK Dilution Factor: 1.7

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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SAMPLE DATA SUMMARY

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE N

ORIGINAL
CX921 (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225389

Sample wt/vol: 1.0 (g/mL) G Lab File ID: GH025389B22

Level: (low/med) MED Date Received: 10/28/88

% Moisture: not dec. 19 dec. ____ Date Extracted: 11/07/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/18/88

GPC Cleanup: (Y/N) N pH: 8.1 Dilution Factor: 1.0

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 124-18-5	DECANE	7.13	110000	J
2. 17301-32-5	UNDECANE, 4,7-DIMETHYL-	10.10	100000	J
3.	UNKNOWN HYDROCARBON	11.49	130000	J
4. 629-78-7	HEPTADECANE	11.79	120000	J
5. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	12.55	110000	J
6. 74764-11-7	IRON, TRICARBONYL[N-(PHENYL-	13.27	200000	J
7. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	13.32	100000	J
8. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	13.95	170000	J
9. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	14.04	100000	J
10. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	14.60	210000	J
11.	UNKNOWN HYDROCARBON	14.99	300000	J
12.	UNKNOWN HYDROCARBON	16.05	170000	J
13.	UNKNOWN HYDROCARBON	16.19	120000	J
14.	UNKNOWN HYDROCARBON	17.45	30000	J
15. 630-06-8	HEXATRIACONTANE	17.64	130000	J
16. 630-06-8	HEXATRIACONTANE	17.97	270000	J
17. 630-06-8	HEXATRIACONTANE	18.15	180000	J
18.	UNKNOWN HYDROCARBON	18.70	180000	J
19.	UNKNOWN HYDROCARBON	18.87	230000	J
20.	UNKNOWN HYDROCARBON	19.34	170000	J

SAMPLE DATA SUMMARY

ORIGINAL (Red)

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX922RE

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10598 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225390

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C2R25390C11

Level: (low/med) MED Date Received: 10/28/88

% Moisture: not dec. 15 Date Analyzed: 11/07/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1500	U
74-83-9	Bromomethane	1500	U
75-01-4	Vinyl Chloride	1500	U
75-00-3	Chloroethane	1500	U
75-09-2	Methylene Chloride	610	BDJ
67-64-1	Acetone	2700	BD
75-15-0	Carbon Disulfide	740	U
75-35-4	1,1-Dichloroethene	150	DJ
75-34-3	1,1-Dichloroethane	1000	D
540-59-0	1,2-Dichloroethene (total)	250	DJ
67-66-3	Chloroform	740	U
107-06-2	1,2-Dichloroethane	740	U
78-93-3	2-Butanone	1200	DJ
71-55-6	1,1,1-Trichloroethane	4100	D
56-23-5	Carbon Tetrachloride	740	U
108-05-4	Vinyl Acetate	1500	U
75-27-4	Bromodichloromethane	740	U
78-87-5	1,2-Dichloropropane	740	U
10061-01-5	cis-1,3-Dichloropropene	740	U
79-01-6	Trichloroethene	4700	D
124-48-1	Dibromochloromethane	740	U
79-00-5	1,1,2-Trichloroethane	270	DJ
71-43-2	Benzene	2600	D
10061-02-6	Trans-1,3-Dichloropropene	740	U
75-25-2	Bromoform	740	U
108-10-1	4-Methyl-2-Pentanone	1400	DJ
591-78-6	2-Hexanone	1500	U
127-18-4	Tetrachloroethene	7400	D
79-34-5	1,1,2,2-Tetrachloroethane	740	U
108-88-3	Toluene	22000	D
108-90-7	Chlorobenzene	350	DJ
100-41-4	Ethylbenzene	5500	D
100-42-5	Styrene	1200	D
1330-20-7	Total Xylenes	28000	D

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SAMPLE DATA SUMMARY

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N

CX922

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225390

Sample wt/vol: 30.0 (g/mL) G Lab File ID: G2D25390B08

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 15 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/21/88

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	770	J
111-44-4	bis(2-Chloroethyl)Ether	1900	U
95-57-8	2-Chlorophenol	1900	U
541-73-1	1,3-Dichlorobenzene	1900	U
106-46-7	1,4-Dichlorobenzene	1900	U
100-51-6	Benzyl Alcohol	1900	U
95-50-1	1,2-Dichlorobenzene	370	J
95-48-7	2-Methylphenol	1900	U
39638-32-9	bis(2-Chloroisopropyl)Ether	1900	U
106-44-5	4-Methylphenol	990	J
621-64-7	N-Nitroso-Di-n-Propylamine	1900	U
67-72-1	Hexachloroethane	1900	U
98-95-3	Nitrobenzene	1900	U
78-59-1	Isophorone	1900	U
88-75-5	2-Nitrophenol	1900	U
105-67-9	2,4-Dimethylphenol	1900	U
65-85-0	Benzoic Acid	9400	U
111-91-1	bis(2-Chloroethoxy)Methane	1900	U
120-83-2	2,4-Dichlorophenol	590	J
120-82-1	1,2,4-Trichlorobenzene	1900	J
91-20-3	Naphthalene	6500	
106-47-8	4-Chloroaniline	1900	U
87-68-3	Hexachlorobutadiene	1900	U
59-50-7	4-Chloro-3-Methylphenol	1900	U
91-57-6	2-Methylnaphthalene	8000	
77-47-4	Hexachlorocyclopentadiene	1900	U
88-06-2	2,4,6-Trichlorophenol	4500	
95-95-4	2,4,5-Trichlorophenol	9400	U
91-58-7	2-Chloronaphthalene	1900	U
88-74-4	2-Nitroaniline	9400	U
131-11-3	Dimethyl Phthalate	1900	U
208-96-8	Acenaphthylene	830	J
606-20-2	2,6-Dinitrotoluene	1900	U

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SAMPLE DATA SUMMARY 1-2

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

ORIGINA

CX922 (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225390

Sample wt/vol: 30.0 (g/mL) G Lab File ID: G2D25390B08

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 15 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/21/88

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	9400	U
83-32-9	Acenaphthene	870	J
51-28-5	2,4-Dinitrophenol	9400	U
100-02-7	4-Nitrophenol	9400	U
132-64-9	Dibenzofuran	1300	J
121-14-2	2,4-Dinitrotoluene	1900	U
84-66-2	Diethylphthalate	1900	U
7005-72-3	4-Chlorophenyl-phenylether	1900	U
86-73-7	Fluorene	2900	
100-01-6	4-Nitroaniline	9400	U
534-52-1	4,6-Dinitro-2-Methylphenol	9400	U
86-30-6	N-Nitrosodiphenylamine (1)	1900	U
101-55-3	4-Bromophenyl-phenylether	1900	U
118-74-1	Hexachlorobenzene	1900	U
87-86-5	Pentachlorophenol	9400	U
85-01-8	Phenanthrene	5500	
120-12-7	Anthracene	2100	
84-74-2	Di-n-Butylphthalate	1900	U
206-44-0	Fluoranthene	2900	
129-00-0	Pyrene	3800	
85-68-7	Butylbenzylphthalate	1900	U
91-94-1	3,3'-Dichlorobenzidine	3900	U
56-55-3	Benzo(a)Anthracene	2400	
218-01-9	Chrysene	2400	
117-81-7	bis(2-Ethylhexyl)Phthalate	29000	B
117-84-0	Di-n-Octyl Phthalate	1900	U
205-99-2	Benzo(b)Fluoranthene	2300	
207-08-9	Benzo(k)Fluoranthene	1500	J
50-32-8	Benzo(a)Pyrene	1700	J
193-39-5	Indeno(1,2,3-cd)Pyrene	1900	U
53-70-3	Dibenzo(a,h)Anthracene	1900	U
191-24-2	Benzo(g,h,i)Perylene	1900	U

(1) - Cannot be separated from Diphenylamine

SAMPLE DATA SUMMARY

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX922

ORIGINA (Red)

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225390

Sample wt/vol: 30.0 (g/mL) G Lab File ID: PC025390A08

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 15 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/23/88

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.4	U
319-85-7	beta-BHC	9.4	U
319-86-8	delta-BHC	9.4	U
58-89-9	gamma-BHC (Lindane)	9.4	U
76-44-8	Heptachlor	9.4	U
309-00-2	Aldrin	9.4	U
1024-57-3	Heptachlor epoxide	9.4	U
959-98-8	Endosulfan I	9.4	U
60-57-1	Dieldrin	19.	U
72-55-9	4,4'-DDE	19.	U
72-20-8	Endrin	19.	U
33213-65-9	Endosulfan II	19.	U
72-54-8	4,4'-DDD	19.	U
1031-07-8	Endosulfan sulfate	19.	U
50-29-3	4,4'-DDT	19.	U
72-43-5	Methoxychlor	94.	U
53494-70-5	Endrin ketone	19.	U
5103-71-9	alpha-Chlordane	94.	U
5103-74-2	gamma-Chlordane	94.	U
8001-35-2	Toxaphene	190	U
12674-11-2	Aroclor-1016	94.	U
11104-28-2	Aroclor-1221	94.	U
11141-16-5	Aroclor-1232	94.	U
53469-21-9	Aroclor-1242	94.	U
12672-29-6	Aroclor-1248	94.	U
11097-69-1	Aroclor-1254	190	U
11096-82-5	Aroclor-1260	6800	C

FORM I PEST 1/87 Rev.

SAMPLE DATA SUMMARY

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. CX922

ORIGINAL (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10638 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225390

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH025390803

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 15 Date Analyzed: 11/02/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-82-7	CYCLOHEXANE	15.35	13	J
2.	UNKNOWN HYDROCARBON	23.64	9.4	J
3. 565-80-0	3-PENTANONE,2,4-DIMETHYL-	24.65	4.7	J
4.	UNKNOWN	28.67	5.9	J
5.	UNKNOWN	36.44	7.1	J
6. 873-94-9	CYCLOHEXANONE,3,3,5-TRIMETHY	42.24	38	J

FORM I VOA-TIC 1/87 Rev.

ORIGINAL

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX922RE

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225390

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C2R25390C11

Level: (low/med) MED Date Received: 10/28/88

% Moisture: not dec. 15 Date Analyzed: 11/07/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	ETHANE,1,1,2-TRICHLORO-1,2,2	12.04	1200	J
2. 589-34-4	HEXANE,3-METHYL-	21.95	1000	J
3.	UNKNOWN CYCLIC HYDROCARBON	27.04	1300	J
4.	UNKNOWN	30.29	2400	J

FORM I VOA-TIC 1/87 Rev.

SAMPLE DATA SUMMARY

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. ORIGINAL (Red)
CX922

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225390

Sample wt/vol: 30.0 (g/mL) G Lab File ID: G2D25390B08

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 15 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/21/88

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 5.0

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	7.77	17000	J
2. 17301-32-5	UNDECANE, 4,7-DIMETHYL-	8.80	31000	J
3. 17301-32-5	UNDECANE, 4,7-DIMETHYL-	9.75	71000	J
4. 26730-14-3	TRIDECANE, 7-METHYL-	10.42	24000	J
5. 17301-32-5	UNDECANE, 4,7-DIMETHYL-	10.65	61000	J
6. 17301-32-5	UNDECANE, 4,7-DIMETHYL-	11.50	75000	J
7. 573-98-8	NAPHTHALENE, 1,2-DIMETHYL-	11.92	37000	J
8. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	12.00	51000	J
9. 29812-79-1	HYDROXYLAMINE, O-DECYL-	12.29	71000	J
10.	UNKNOWN PNA	12.79	29000	J
11. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	13.04	63000	J
12. 629-78-7	HEPTADECANE	13.39	53000	J
13.	UNKNOWN ACID	13.44	18000	J
14. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	14.40	18000	J
15. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	15.04	29000	J
16.	UNKNOWN HYDROCARBON	15.44	24000	J
17.	UNKNOWN HYDROCARBON	16.50	20000	J
18.	UNKNOWN HYDROCARBON	17.00	17000	J
19.	UNKNOWN HYDROCARBON	18.72	20000	J
20. 629-78-7	HEPTADECANE	13.74	20000	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX923

ORIGINAL (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225397

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH025397A13

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 15 Date Analyzed: 11/04/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	25	B
67-64-1	Acetone	12	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

FORM I VOA 1/87 Rev.

SAMPLE DATA SUMMARY

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. ORIGINAL (Red)

CX923

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225397

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH025397A04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 15 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/07/88

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
100-51-6	Benzyl Alcohol	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
39638-32-9	bis(2-Chloroisopropyl)Ether	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N Nitroso-Di-n-Propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(2-Chloroethoxy)Methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethyl Phthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U

FORM I SV-1 1/87 Rev.

SAMPLE DATA SUMMARY 121

ORIGINAL (Red)

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX923

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225397

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH025397A04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 15 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/07/88

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
84-74-2	Di-n-Butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo(a)Anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)Phthalate	290	BJ
117-84-0	Di-n-Octyl Phthalate	390	U
205-99-2	Benzo(b)Fluoranthene	390	U
207-08-9	Benzo(k)Fluoranthene	390	U
50-32-8	Benzo(a)Pyrene	390	U
193-39-5	Indeno(1,2,3-cd)Pyrene	390	U
53-70-3	Dibenzo(a,h)Anthracene	390	U
191-24-2	Benzo(g,h,i)Perylene	390	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev

SAMPLE DATA SUMMARY 120

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

ORIGINAL (Red)

EPA SAMPLE NO.

CX923

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225397

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 15 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/23/88

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.4	U
319-85-7	beta-BHC	9.4	U
319-86-8	delta-BHC	9.4	U
58-89-9	gamma-BHC (Lindane)	9.4	U
76-44-8	Heptachlor	9.4	U
309-00-2	Aldrin	9.4	U
1024-57-3	Heptachlor epoxide	9.4	U
959-98-8	Endosulfan I	9.4	U
60-57-1	Dieldrin	19.	U
72-55-9	4,4'-DDE	19.	U
72-20-8	Endrin	19.	U
33213-65-9	Endosulfan II	19.	U
72-54-8	4,4'-DDD	19.	U
1031-07-8	Endosulfan sulfate	19.	U
50-29-3	4,4'-DDT	19.	U
72-43-5	Methoxychlor	94.	U
53494-70-5	Endrin ketone	19.	U
5103-71-9	alpha-Chlordane	94.	U
5103-74-2	gamma-Chlordane	94.	U
8001-35-2	Toxaphene	190	U
12674-11-2	Aroclor-1016	94.	U
11104-28-2	Aroclor-1221	94.	U
11141-16-5	Aroclor-1232	94.	U
53469-21-9	Aroclor-1242	94.	U
12672-29-6	Aroclor-1248	94.	U
11097-69-1	Aroclor-1254	190	U
11096-82-5	Aroclor-1260	190	U

FORM I PEST 1/87 Rev.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. ORIGINAL

CX923

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225397

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH025397A13

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 15 Date Analyzed: 11/04/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NC

CX923 ORIGINA (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225397

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH025397A04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 15 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/07/88

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.00

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	~~BLANK CONTAMINANT~~	~~5.25~~	~~1000~~	~~BJ~~
2.	~~BLANK CONTAMINANT~~	~~5.33~~	~~1400~~	~~BJ~~
3.	ALDOL	6.27	670	AJ
4. 620-14-4	BENZENE, 1-ETHYL-3-METHYL-	6.55	200	J
5.	ALDOL	6.75	1100	AJ

FORM I SV-TIC 1/87 Re

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX924

ORIGIN (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10599 SAS No.: _____ SDG No.: CX921

Matrix (soil/water) SOIL Lab Sample ID: 225401

Sample wt/vol: 3.6 (g/mL) G Lab File ID: GR025401B03

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 10 Date Analyzed: 11/07/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	16	U
74-83-9	Bromomethane	16	U
75-01-4	Vinyl Chloride	16	U
75-00-3	Chloroethane	16	U
75-09-2	Methylene Chloride	14	B
67-64-1	Acetone	14	BJ
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	66	
540-59-0	1,2-Dichloroethene (total)	8	U
67-66-3	Chloroform	2	BJ
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	16	U
71-55-6	1,1,1-Trichloroethane	270	
56-23-5	Carbon Tetrachloride	8	U
108-05-4	Vinyl Acetate	16	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	6	J
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	2	J
71-43-2	Benzene	8	U
10061-02-6	Trans-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	16	U
591-78-6	2-Hexanone	16	U
127-18-4	Tetrachloroethene	16	
79-34-5	1,1,2,2-Tetrachloroethane	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Total Xylenes	8	U

FORM I VOA 1/87 Rev.

SAMPLE DATA SUMMARY

BPDR 0017651

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. CX924

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225401

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GD025401C04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 10 dec. . Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1800	U
111-44-4	bis(2-Chloroethyl)Ether	1800	U
95-57-8	2-Chlorophenol	1800	U
541-73-1	1,3-Dichlorobenzene	1800	U
106-46-7	1,4-Dichlorobenzene	1800	U
100-51-6	Benzyl Alcohol	1800	U
95-50-1	1,2-Dichlorobenzene	1800	U
95-48-7	2-Methylphenol	1800	U
39638-32-9	bis(2-Chloroisopropyl)Ether	1800	U
106-44-5	4-Methylphenol	600	J
621-64-7	N-Nitroso-Di-n-Propylamine	1800	U
67-72-1	Hexachloroethane	1800	U
98-95-3	Nitrobenzene	1800	U
78-59-1	Isophorone	1800	U
88-75-5	2-Nitrophenol	1800	U
105-67-9	2,4-Dimethylphenol	1800	U
65-85-0	Benzoic Acid	8900	U
111-91-1	bis(2-Chloroethoxy)Methane	1800	U
120-83-2	2,4-Dichlorophenol	1800	U
120-82-1	1,2,4-Trichlorobenzene	720	J
91-20-3	Naphthalene	1900	
106-47-8	4-Chloroaniline	1800	U
87-68-3	Hexachlorobutadiene	1800	U
59-50-7	4-Chloro-3-Methylphenol	1800	U
91-57-6	2-Methylnaphthalene	670	J
77-47-4	Hexachlorocyclopentadiene	1800	U
88-06-2	2,4,6-Trichlorophenol	920	J
95-95-4	2,4,5-Trichlorophenol	8900	U
91-58-7	2-Chloronaphthalene	1800	U
88-74-4	2-Nitroaniline	8900	U
131-11-3	Dimethyl Phthalate	1800	U
208-96-8	Acenaphthylene	1000	J
606-20-2	2,6-Dinitrotoluene	1800	U

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SAMPLE DATA SUMMARY

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ORIGINAL

EPA SAMPLE NO.

CX924

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225401

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GD025401C04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 10 dec. . Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	8900	U
83-32-9	Acenaphthene	480	J
51-28-5	2,4-Dinitrophenol	8900	U
100-02-7	4-Nitrophenol	8900	U
132-64-9	Dibenzofuran	780	J
121-14-2	2,4-Dinitrotoluene	1800	U
84-66-2	Diethylphthalate	1800	U
7005-72-3	4-Chlorophenyl-phenylether	1800	U
86-73-7	Fluorene	860	J
100-01-6	4-Nitroaniline	8900	U
534-52-1	4,6-Dinitro-2-Methylphenol	8900	U
86-30-6	N-Nitrosodiphenylamine (1)	1800	U
101-55-3	4-Bromophenyl-phenylether	1800	U
118-74-1	Hexachlorobenzene	1800	U
87-86-5	Pentachlorophenol	8900	U
85-01-8	Phenanthrene	3700	
120-12-7	Anthracene	1200	J
84-74-2	Di-n-Butylphthalate	1800	U
206-44-0	Fluoranthene	4200	
129-00-0	Pyrene	3900	
85-68-7	Butylbenzylphthalate	1800	U
91-94-1	3,3'-Dichlorobenzidine	3700	U
56-55-3	Benzo(a)Anthracene	2100	
218-01-9	Chrysene	2300	
117-81-7	bis(2-Ethylhexyl)Phthalate	5300	B
117-84-0	Di-n-Octyl Phthalate	1800	U
205-99-2	Benzo(b)Fluoranthene	6400	X
207-08-9	Benzo(k)Fluoranthene	6400	X
50-32-8	Benzo(a)Pyrene	3000	
193-39-5	Indeno(1,2,3-cd)Pyrene	1800	J
53-70-3	Dibenzo(a,h)Anthracene	620	J
191-24-2	Benzo(g,h,i)Perylene	1800	J

(1) - Cannot be separated from Diphenylamine

X=indistinguishable isomers

FORM I SV-2 1/87 Rev.

SAMPLE DATA SUMMARY

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX924

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225401

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 10 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/23/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.9	U
319-85-7	beta-BHC	8.9	U
319-86-8	delta-BHC	8.9	U
58-89-9	gamma-BHC (Lindane)	8.9	U
76-44-8	Heptachlor	8.9	U
309-00-2	Aldrin	8.9	U
1024-57-3	Heptachlor epoxide	8.9	U
959-98-8	Endosulfan I	8.9	U
60-57-1	Dieldrin	18.	U
72-55-9	4,4'-DDE	18.	U
72-20-8	Endrin	18.	U
33213-65-9	Endosulfan II	18.	U
72-54-8	4,4'-DDD	18.	U
1031-07-8	Endosulfan sulfate	18.	U
50-29-3	4,4'-DDT	18.	U
72-43-5	Methoxychlor	89.	U
5349[illegible]-70-5	Endrin ketone	18.	U
5103-71-9	alpha-Chlordane	89.	U
5103-74-2	gamma-Chlordane	89.	U
8001-35-2	Toxaphene	180	U
12674-11-2	Aroclor-1016	89.	U
11104-28-2	Aroclor-1221	89.	U
11141-16-5	Aroclor-1232	89.	U
53469-21-9	Aroclor-1242	89.	U
12672-29-6	Aroclor-1248	89.	U
11097-69-1	Aroclor-1254	180	U
11096-82-5	Aroclor-1260	180	U

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SAMPLE DATA SUMMARY 80

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. CX924

ORIGIN (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225401

Sample wt/vol: 3.6 (g/mL) G Lab File ID: GR0254018B3

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 10 Date Analyzed: 11/07/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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SAMPLE DATA SUMMARY 143

ORIGINAL

EPA SAMPLE No.

CX924

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225401

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GD025401C04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 10 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 5.0

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	10.60	4100	J
2.	UNKNOWN HYDROCARBON	11.97	4600	J
3.	UNKNOWN HYDOCARBON	12.37	16000	J
4.	UNKNOWN HYDROCARBON	12.99	5900	J
5.	UNKNOWN HYDROCARBON	13.05	6700	J
6.	UNKNOWN HYDROCARBON	13.62	5000	J
7.	UNKNOWN FATTY ACID	13.99	13000	J
8.	UNKNOWN	15.15	4500	J
9.	UNKNOWN	16.85	7600	J
10.	UNKNOWN	16.95	4300	J
11.	UNKNOWN	17.02	6100	J
12.	UNKNOWN	17.47	5400	J
13.	UNKNOWN	17.59	16000	J
14.	UNKNOWN	17.70	5000	J
15.	UNKNOWN	17.77	7400	J
16.	UNKNOWN	17.94	4800	J
17.	UNKNOWN	18.29	4100	J
18.	UNKNOWN	19.34	6500	J
19.	UNKNOWN	20.70	12000	J
20.	UNKNOWN	21.45	7600	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX925

ORIGINAL (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10899 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225402

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH025402A13

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 17 Date Analyzed: 11/04/88

Column: (pack/cap) PACK Dilution Factor: 1.0

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	44	B
67-64-1	Acetone	150	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	2	J
75-34-3	1,1-Dichloroethane	210	
540-59-0	1,2-Dichloroethene (total)	210	
67-66-3	Chloroform	2	J
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	18	
71-55-6	1,1,1-Trichloroethane	73	
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	11	
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	15	
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	30	
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	5	J
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	41	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	18	

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SAMPLE DATA SUMMARY

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

CX925 ORIGINAL (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225402

Sample wt/vol: 1.0 (g/mL) G Lab File ID: GR025402C16

Level: (low/med) MED Date Received: 10/28/88

% Moisture: not dec. 17 dec. ____ Date Extracted: 11/10/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/11/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	24000	U
111-44-4	bis(2-Chloroethyl)Ether	24000	U
95-57-8	2-Chlorophenol	24000	U
541-73-1	1,3-Dichlorobenzene	24000	U
106-46-7	1,4-Dichlorobenzene	24000	U
100-51-6	Benzyl Alcohol	24000	U
95-50-1	1,2-Dichlorobenzene	24000	U
95-48-7	2-Methylphenol	24000	U
39638-32-9	bis(2-Chloroisopropyl)Ether	24000	U
106-44-5	4-Methylphenol	24000	U
621-64-7	N-Nitroso-Di-n-Propylamine	24000	U
67-72-1	Hexachloroethane	24000	U
98-95-3	Nitrobenzene	24000	U
78-59-1	Isophorone	24000	U
88-75-5	2-Nitrophenol	24000	U
105-67-9	2,4-Dimethylphenol	24000	U
65-85-0	Benzoic Acid	120000	U
111-91-1	bis(2-Chloroethoxy)Methane	24000	U
120-83-2	2,4-Dichlorophenol	24000	U
120-82-1	1,2,4-Trichlorobenzene	24000	U
91-20-3	Naphthalene	24000	U
106-47-8	4-Chloroaniline	24000	U
87-68-3	Hexachlorobutadiene	24000	U
59-50-7	4-Chloro-3-Methylphenol	24000	U
91-57-6	2-Methylnaphthalene	24000	U
77-47-4	Hexachlorocyclopentadiene	24000	U
88-06-2	2,4,6-Trichlorophenol	24000	U
95-95-4	2,4,5-Trichlorophenol	120000	U
91-58-7	2-Chloronaphthalene	24000	U
88-74-4	2-Nitroaniline	120000	U
131-11-3	Dimethyl Phthalate	24000	U
208-96-8	Acenaphthylene	24000	U
606-20-2	2,6-Dinitrotoluene	24000	U

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SAMPLE DATA SUMMARY

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ORIGINAL
CX925[illegible]

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225402

Sample wt/vol: 1.0 (g/mL) G Lab File ID: G4J25402A16

Level: (low/med) MED Date Received: 10/28/88

% Moisture: not dec. 17 dec. ____ Date Extracted: 11/10/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 3.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	72000	U
111-44-4	bis(2-Chloroethyl)Ether	72000	U
95-57-8	2-Chlorophenol	72000	U
541-73-1	1,3-Dichlorobenzene	72000	U
106-46-7	1,4-Dichlorobenzene	72000	U
100-51-6	Benzyl Alcohol	72000	U
95-50-1	1,2-Dichlorobenzene	72000	U
95-48-7	2-Methylphenol	72000	U
39638-32-9	bis(2-Chloroisopropyl)Ether	72000	U
106-44-5	4-Methylphenol	72000	U
621-64-7	N-Nitroso-Di-n-Propylamine	72000	U
67-72-1	Hexachloroethane	72000	U
98-95-3	Nitrobenzene	72000	U
78-59-1	Isophorone	72000	U
88-75-5	2-Nitrophenol	72000	U
105-67-9	2,4-Dimethylphenol	72000	U
65-85-0	Benzoic Acid	350000	U
111-91-1	bis(2-Chloroethoxy)Methane	72000	U
120-83-2	2,4-Dichlorophenol	72000	U
120-82-1	1,2,4-Trichlorobenzene	72000	U
91-20-3	Naphthalene	72000	U
106-47-8	4-Chloroaniline	72000	U
87-68-3	Hexachlorobutadiene	72000	U
59-50-7	4-Chloro-3-Methylphenol	72000	U
91-57-6	2-Methylnaphthalene	72000	U
77-47-4	Hexachlorocyclopentadiene	72000	U
88-06-2	2,4,6-Trichlorophenol	72000	U
[illegible]5-4	2,4,5-Trichlorophenol	350000	U
91[illegible]8-7	2-Chloronaphthalene	72000	U
88-74-4	2-Nitroaniline	350000	U
131-11-3	Dimethyl Phthalate	72000	U
208-96-8	Acenaphthylene	72000	U
606-20-2	2,6-Dinitrotoluene	72000	U

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SAMPLE DATA SUMMARY

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ORIGINAL (Red)

CX925

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225402

Sample wt/vol: 1.0 (g/mL) G Lab File ID: GR025402C16

Level: (low/med) MED Date Received: 10/28/88

% Moisture: not dec. 17 dec. ____ Date Extracted: 11/10/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/11/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	120000	U
83-32-9	Acenaphthene	24000	U
51-28-5	2,4-Dinitrophenol	120000	U
100-02-7	4-Nitrophenol	120000	U
132-64-9	Dibenzofuran	24000	U
121-14-2	2,4-Dinitrotoluene	24000	U
84-66-2	Diethylphthalate	24000	U
7005-72-3	4-Chlorophenyl-phenylether	24000	U
86-73-7	Fluorene	24000	U
100-01-6	4-Nitroaniline	120000	U
534-52-1	4,6-Dinitro-2-Methylphenol	120000	U
86-30-6	N-Nitrosodiphenylamine (1)	24000	U
101-55-3	4-Bromophenyl-phenylether	24000	U
118-74-1	Hexachlorobenzene	24000	U
87-86-5	Pentachlorophenol	120000	U
85-01-8	Phenanthrene	24000	U
120-12-7	Anthracene	24000	U
84-74-2	Di-n-Butylphthalate	5700	J
206-44-0	Fluoranthene	2600	J
129-00-0	Pyrene	8700	J
85-68-7	Butylbenzylphthalate	19000	J
91-94-1	3,3'-Dichlorobenzidine	48000	U
56-55-3	Benzo(a)Anthracene	24000	U
218-01-9	Chrysene	6700	J
117-81-7	bis(2-Ethylhexyl)Phthalate	500000	E
117-84-0	Di-n-Octyl Phthalate	11000	J
205-99-2	Benzo(b)Fluoranthene	24000	U
207-08-9	Benzo(k)Fluoranthene	4100	J
50-32-8	Benzo(a)Pyrene	8100	J
193-39-5	Indeno(1,2,3-cd)Pyrene	24000	U
53-70-3	Dibenzo(a,h)Anthracene	24000	U
191-24-2	Benzo(g,h,i)Perylene	24000	U

(1) - Cannot be separated from Diphenylamine

ORIGINAL (Red)

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

CX925DL

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225402

Sample wt/vol: 1.0 (g/mL) G Lab File ID: G4J25402A16

Level: (low/med) MED Date Received: 10/28/88

% Moisture: not dec. 17 dec. ____ Date Extracted: 11/10/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 3.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	350000	U
83-32-9	Acenaphthene	72000	U
51-28-5	2,4-Dinitrophenol	350000	U
100-02-7	4-Nitrophenol	350000	U
132-64-9	Dibenzofuran	72000	U
121-14-2	2,4-Dinitrotoluene	72000	U
84-66-2	Diethylphthalate	72000	U
7005-72-3	4-Chlorophenyl-phenylether	72000	U
86-73-7	Fluorene	72000	U
100-01-6	4-Nitroaniline	350000	U
534-52-1	:,6-Dinitro-2-Methylphenol	350000	U
86-30-6	N-Nitrosodiphenylamine (1)	9500	DJ
101-55-3	4-Bromophenyl-phenylether	72000	U
118-74-1	Hexachlorobenzene	72000	U
87-86-5	Pentachlorophenol	350000	U
85-01-8	Phenanthrene	72000	U
120-12-7	Anthracene	72000	U
84-74-2	Di-n-Butylphthalate	72000	U
206-44-0	Fluoranthene	72000	U
129-00-0	Pyrene	12000	DJ
85-68-7	Butylbenzylphthalate	8500	DJ
91-94-1	3,3'-Dichlorobenzidine	140000	U
56-55-3	Benzo(a)Anthracene	72000	U
218-01-9	Chrysene	72000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	360000	D
117-84-0	Di-n-Octyl Phthalate	72000	U
205-99-2	Benzo(b)Fluoranthene	72000	U
207-08-9	Benzo(k)Fluoranthene	72000	U
50-32-8	Benzo(a)Pyrene	72000	U
193-39-5	Indeno(1,2,3-cd)Pyrene	72000	U
53-70-3	Dibenzo(a,h)Anthracene	72000	U
191-24-2	Benzo(g,h,i)Perylene	72000	U

(1) - Cannot be separated from Diphenylamine

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SAMPLE DATA SUMMARY 111

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ORIGINAL (Red)

CX925

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225402

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 17 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/26/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 10.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	96.	U
319-85-7	beta-BHC	96.	U
319-86-8	delta-BHC	96.	U
58-89-9	gamma-BHC (Lindane)	96.	U
76-44-8	Heptachlor	96.	U
309-00-2	Aldrin	96.	U
1024-57-3	Heptachlor epoxide	96.	U
959-98-8	Endosulfan I	96.	U
60-57-1	Dieldrin	190	U
72-55-9	4,4'-DDE	190	U
72-20-8	Endrin	190	U
33213-65-9	Endosulfan II	190	U
72-54-8	4,4'-DDD	190	U
1031-07-8	Endosulfan sulfate	190	U
50-29-3	4,4'-DDT	190	U
72-43-5	Methoxychlor	960	U
53494-70-5	Endrin ketone	190	U
5103-71-9	alpha-Chlordane	960	U
5103-74-2	gamma-Chlordane	960	U
8001-35-2	Toxaphene	1900	U
12674-11-2	Aroclor-1016	960	U
11104-28-2	Aroclor-1221	960	U
11141-16-5	Aroclor-1232	960	U
53469-21-9	Aroclor-1242	960	U
12672-29-6	Aroclor-1248	960	U
11097-69-1	Aroclor-1254	1900	U
11096-82-5	Aroclor-1260	1900	U

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SAMPLE DATA SUMMARY

ORIGINAL (Red)

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: CX925

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10638 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225402

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH0225402A13

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 17 Date Analyzed: 11/04/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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SAMPLE DATA SUMMARY

ORIGINAL

EPA SAMPLE N

CX925

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225402

Sample wt/vol: 1.0 (g/mL) G Lab File ID: GR025402C16

Level: (low/med) MED Date Received: 10/28/88

% Moisture: not dec. 17 dec. ____ Date Extracted: 11/10/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/11/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.0

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	14.22	480000	J
2.	UNKNOWN HYDROCARBON	14.85	290000	J
3.	UNKNOWN	15.30	310000	J
4.	UNKNOWN HYDROCARBON	15.70	530000	J
5.	UNKNOWN HYDROCARBON	16.10	550000	J
6.	UNKNOWN	16.20	340000	J
7.	UNKNOWN	16.32	410000	J
8.	UNKNOWN	16.50	510000	J
9.	UNKNOWN	16.62	390000	J
10.	UNKNOWN	16.67	510000	J
11.	UNKNOWN	16.80	550000	J
12.	UNKNOWN HYDROCARBON	17.02	800000	J
13.	UNKNOWN	17.20	290000	J
14.	UNKNOWN	17.60	460000	J
15.	UNKNOWN	17.79	410000	J
16.	UNKNOWN HYDROCARBON	17.97	820000	J
17.	UNKNOWN	18.45	340000	J
18.	UNKNOWN	18.54	550000	J
19.	UNKNOWN	18.75	550000	J
20.	UNKNOWN	19.20	580000	J

ORIGINAL (Red)

EPA SAMPLE NO

CX925DL

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225402

Sample wt/vol: 1.0 (g/mL) G Lab File ID: G4J25402A16

Level: (low/med) MED Date Received: 10/28/88

% Moisture: not dec. 17 dec. ____ Date Extracted: 11/10/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 3.0

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	12.94	140000	J
2.	UNKNOWN HYDROCARBON	13.60	160000	J
3.	UNKNOWN	14.47	300000	J
4.	UNKNOWN HYDROCARBON	15.14	150000	J
5.	UNKNOWN	15.57	200000	J
6.	UNKNOWN HYDROCARBON	15.95	330000	J
7.	UNKNOWN	16.07	170000	J
8.	UNKNOWN HYDROCARBON	16.35	520000	J
9.	UNKNOWN	16.49	370000	J
10.	UNKNOWN	16.59	220000	J
11.	UNKNOWN	16.64	170000	J
12.	UNKNOWN	16.69	190000	J
13.	UNKNOWN	16.77	310000	J
14.	UNKNOWN HYDROCARBON	16.89	190000	J
15.	UNKNOWN	16.94	220000	J
16.	UNKNOWN	17.10	340000	J
17.	UNKNOWN	17.32	370000	J
18.	UNKNOWN	17.49	150000	J
19.	UNKNOWN HYDROCARBON	18.32	200000	J
20.	UNKNOWN	21.90	160000	J

SAMPLE DATA SUMMARY

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. ORIGINAL (Red)

CX926

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225403

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH025403B13

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 14 Date Analyzed: 11/04/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	32	B
67-64-1	Acetone	33	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	2	J
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

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SAMPLE DATA SUMMARY

ORIGINAL (Red)

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX926

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225403

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH025403C04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 14 dec. . Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
100-51-6	Benzyl Alcohol	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
39638-32-9	bis(2-Chloroisopropyl)Ether	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-Di-n-Propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(2-Chloroethoxy)Methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-Methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethyl Phthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U

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SAMPLE DATA SUMMARY

ORIGINAL (Red)

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX926

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225403

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH025403C04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 14 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	380	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	53	J
120-12-7	Anthracene	58	J
84-74-2	Di-n-Butylphthalate	120	J
206-44-0	Fluoranthene	58	J
129-00-0	Pyrene	60	J
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	770	U
56-55-3	Benzo(a)Anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)Phthalate	930	B
117-84-0	Di-n-Octyl Phthalate	380	U
205-99-2	Benzo(b)Fluoranthene	380	U
207-08-9	Benzo(k)Fluoranthene	380	U
50-32-8	Benzo(a)Pyrene	380	U
193-39-5	Indeno(1,2,3-cd)Pyrene	380	U
53-70-3	Dibenzo(a,h)Anthracene	380	U
191-24-2	Benzo(g,h,i)Perylene	380	U

(1) - Cannot be separated from Diphenylamine

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SAMPLE DATA SUMMARY 103

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. ORIGINAL (Red)

CX926

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225403

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 14 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/23/88

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.3	U
319-85-7	beta-BHC	9.3	U
319-86-8	delta-BHC	9.3	U
58-89-9	gamma-BHC (Lindane)	9.3	U
76-44-8	Heptachlor	9.3	U
309-00-2	Aldrin	9.3	U
1024-57-3	Heptachlor epoxide	9.3	U
959-98-8	Endosulfan I	9.3	U
60-57-1	Dieldrin	19.	U
72-55-9	4,4'-DDE	19.	U
72-20-8	Endrin	19.	U
33213-65-9	Endosulfan II	19.	U
72-54-8	4,4'-DDD	19.	U
1031-07-8	Endosulfan sulfate	19.	U
50-29-3	4,4'-DDT	19.	U
72-43-5	Methoxychlor	93.	U
53494-70-5	Endrin ketone	19.	U
5103-71-9	alpha-Chlordane	93.	U
5103-74-2	gamma-Chlordane	93.	U
8001-35-2	Toxaphene	190	U
12674-11-2	Aroclor-1016	93.	U
11104-28-2	Aroclor-1221	93.	U
11141-16-5	Aroclor-1232	93.	U
53469-21-9	Aroclor-1242	93.	U
12672-29-6	Aroclor-1248	93.	U
11097-69-1	Aroclor-1254	190	U
11096-82-5	Aroclor-1260	560	

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SAMPLE DATA SUMMARY 78

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. ORIGINAL (Red)

CX926

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225403

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH025403B13

Level: (low/med) LOW Date Received: 10/29/88

% Moisture: not dec. 14 Date Analyzed: 11/04/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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SAMPLE DATA SUMMARY 14

ORIGINAL (Red)

EPA SAMPLE NO

CX926

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225403

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH025403C04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 14 dec. . Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.3 Dilution Factor: 1.00

Number TICs found: 23

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	~~BLANK CONTAMINANT~~	~~4.80~~	~~1400~~	~~BJ~~
2.	~~BLANK CONTAMINANT~~	~~4.88~~	~~1800~~	~~BJ~~
3.	ALDOL	5.82	3600	AJ
4.	UNKNOWN HYDROCARBON	12.34	1100	J
5. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	12.39	1700	J
6.	UNKNOWN FATTY ACID	12.75	1600	J
7.	UNKNOWN HYDROCARBON	13.07	1500	J
8.	UNKNOWN	13.65	700	J
9.	UNKNOWN FATTY ACID	14.07	70000	J
10.	UNKNOWN HYDROCARBON	14.25	1000	J
11.	UNKNOWN	15.10	3900	J
12.	UNKNOWN FATTY ACID	15.19	14000	J
13.	UNKNOWN	16.00	1100	J
14.	UNKNOWN	16.70	890	J
15.	UNKNOWN	16.90	3200	J
16.	UNKNOWN	17.05	1200	J
17.	UNKNOWN	17.39	1800	J
18.	UNKNOWN	17.52	2400	J
19.	UNKNOWN	17.64	2600	J
20.	UNKNOWN	17.97	1300	J
21.	UNKNOWN	18.15	1700	J
22.	UNKNOWN	20.74	2200	J
23.	UNKNOWN	21.52	1200	J

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SAMPLE DATA SUMMARY 107

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. ORIGINAL (Red)

CX927

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225404

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH025404B13

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 4 Date Analyzed: 11/04/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	15	B
67-64-1	Acetone	20	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	1	J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

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SAMPLE DATA SUMMARY

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

CX927 ORIGINAL (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225404

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH025404C04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 4 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 5.2 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)Ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
100-51-6	Benzyl Alcohol	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
39638-32-9	bis(2-Chloroisopropyl)Ether	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-Propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
65-85-0	Benzoic Acid	1700	U
111-91-1	bis(2-Chloroethoxy)Methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-Methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethyl Phthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U

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SAMPLE DATA SUMMARY 106

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N

CX927 ORIGIN (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225404

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH025404C04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 4 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 5.2 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-Methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	58	J
120-12-7	Anthracene	340	U
84-74-2	Di-n-Butylphthalate	60	J
206-44-0	Fluoranthene	62	J
129-00-0	Pyrene	54	J
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	690	U
56-55-3	Benzo(a)Anthracene	43	J
218-01-9	Chrysene	56	J
117-81-7	bis(2-Ethylhexyl)Phthalate	290	BJ
117-84-0	Di-n-Octyl Phthalate	340	U
205-99-2	Benzo(b)Fluoranthene	100	JX
207-08-9	Benzo(k)Fluoranthene	100	JX
50-32-8	Benzo(a)Pyrene	340	U
193-39-5	Indeno(1,2,3-cd)Pyrene	340	U
53-70-3	Dibenzo(a,h)Anthracene	340	U
191-24-2	Benzo(g,h,i)Perylene	340	U

(1) - Cannot be separated from Diphenylamine

X = indistinguishable [illegible]

FORM I SV-2 1/87 Re

SAMPLE DATA SUMMARY

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. ORIGINAL (Red)

CX927

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225404

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 4 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/23/88

GPC Cleanup: (Y/N) N pH: 5.2 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.3	U
319-85-7	beta-BHC	8.3	U
319-86-8	delta-BHC	8.3	U
58-89-9	gamma-BHC (Lindane)	8.3	U
76-44-8	Heptachlor	8.3	U
309-00-2	Aldrin	8.3	U
1024-57-3	Heptachlor epoxide	8.3	U
959-98-8	Endosulfan I	8.3	U
60-57-1	Dieldrin	17.	U
72-55-9	4,4'-DDE	17.	U
72-20-8	Endrin	17.	U
33213-65-9	Endosulfan II	17.	U
72-54-8	4,4'-DDD	17.	U
1031-07-8	Endosulfan sulfate	17.	U
50-29-3	4,4'-DDT	17.	U
72-43-5	Methoxychlor	83.	U
53494-70-5	Endrin ketone	17.	U
5103-71-9	alpha-Chlordane	83.	U
5103-74-2	gamma-Chlordane	83.	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	83.	U
11104-28-2	Aroclor-1221	83.	U
11141-16-5	Aroclor-1232	83.	U
53469-21-9	Aroclor-1242	83.	U
12672-29-6	Aroclor-1248	83.	U
11097-69-1	Aroclor-1254	170	U
11096-82-5	Aroclor-1260	170	U

FORM I PEST 1/87 Rev.

SAMPLE DATA SUMMARY

ORIGINAL (Red)

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX927

Lab Name: COMPUCHEM LABS Contract: 68-01-7297

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225404

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH025404813

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 4 Date Analyzed: 11/04/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

SAMPLE DATA SUMMARY

ORIGINAL (Red)

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX928RE

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10699 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225405

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C2R2540SB11

Level: (low/med) MED Date Received: 10/28/88

% Moisture: not dec. 15 Date Analyzed: 11/07/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALCOHOL	30.09	1600	J
2.	UNKNOWN	36.14	1800	J

FORM I VOA-TIC 1/87 Rev.

SAMPLE DATA SUMMARY 1.

ORIGINAL (Red)

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

CX928

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225405

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH025405B04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 15 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.9 Dilution Factor: 2.2

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.42	64000	J
2.	UNKNOWN HYDROCARBON	9.24	110000	J
3.	UNKNOWN HYDROCARBON	10.07	100000	J
4.	UNKNOWN PNA	10.44	77000	J
5.	UNKNOWN HYDROCARBON	10.55	52000	J
6.	UNKNOWN HYDROCARBON	10.84	140000	J
7.	UNKNOWN HYDROCARBON	11.57	110000	J
8.	UNKNOWN HYDROCARBON	11.92	87000	J
9.	UNKNOWN HYDROCARBON	12.29	180000	J
10.	UNKNOWN HYDROCARBON	12.92	96000	J
11.	UNKNOWN HYDROCARBON	12.99	54000	J
12.	UNKNOWN HYDROCARBON	13.55	120000	J
13.	UNKNOWN	13.97	180000	J
14.	UNKNOWN HYDROCARBON	14.15	57000	J
15.	UNKNOWN	15.00	87000	J
16.	UNKNOWN	16.00	44000	J
17.	UNKNOWN	16.49	66000	J
18.	UNKNOWN	16.80	64000	J
19.	UNKNOWN	16.95	46000	J
20.	UNKNOWN	17.84	54000	J

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

ORIGINAL
CX928DL (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225405

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GD025405B08

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 15 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/20/88

GPC Cleanup: (Y/N) N pH: 7.9 Dilution Factor: 22

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	8.65	170000	J
2.	UNKNOWN HYDROCARBON	9.60	200000	J
3.	UNKNOWN HYDROCARBON	10.50	240000	J
4.	UNKNOWN HYDROCARBON	11.34	290000	J
5.	UNKNOWN HYDROCARBON	11.84	320000	J
6.	UNKNOWN HYDROCARBON	12.14	320000	J
7.	UNKNOWN HYDROCARBON	12.85	320000	J
8.	UNKNOWN HYDROCARBON	13.20	180000	J
9.	UNKNOWN HYDROCARBON	13.55	140000	J
10.	UNKNOWN HYDROCARBON	14.22	110000	J
11.	UNKNOWN HYDROCARBON	14.85	130000	J
12.	UNKNOWN	16.27	100000	J
13.	UNKNOWN HYDROCARBON	16.79	110000	J
14.	UNKNOWN	17.29	140000	J
15.	UNKNOWN	17.62	120000	J
16.	UNKNOWN	17.79	210000	J
17.	UNKNOWN	18.12	190000	J
18.	UNKNOWN	18.30	130000	J
19.	UNKNOWN	18.90	150000	J
20.	UNKNOWN	19.05	130000	J

ORIGINAL (Red)

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: CX929

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225357

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025357C23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

FORM I VOA 1/87 Rev.

BPDR 0017680

SAMPLE DATA SUMMARY

ORIGINAL (Red)

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX929

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225357

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GR025357A22

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/08/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/09/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	44	
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	54	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	40	
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

FORM I SV-1 1/87 Rev.

BPDR 0017681

ORIGINAL (Red)

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX929

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225357

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GR025357A22

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/08/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/09/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	42	
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	41	
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	58	
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenzo(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

ORIGINAL (Red)

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX929

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225357

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 11/01/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/06/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

ORIGINAL (Red)

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX929

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225357

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025357C23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

BPDR 0017684

SAMPLE DATA SUMMARY

ORIGINAL (Red)

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX929

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225357

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GR025357A22

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/08/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/09/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	~~BLANK CONTAMINANT~~	~~5.93~~	~~14~~	~~BJ~~

FORM I SV-TIC 1/87 Rev.

BPDR 0017685

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX930 ORIGINAL (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225358

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025358C23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

FORM I VOA 1/87 Rev.

ORIGINAL

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE No.(s)

CX930

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225358

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GR025358A22

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/08/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/09/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

FORM I SV-1 1/87 Rev.

ORIGINAL (Red)

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: CX930

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225358

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GR025358A22

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/08/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/09/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenzo(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. ORIGINAL (Red)

CX930

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225358

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 11/01/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/09/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST 1/87 Rev.

SAMPLE DATA SUMMARY 65

ORIGINAL

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX930

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225358

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025358C23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

BPDR 0017690

ORIGIN. (Red)

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX930

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225358

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GR025358A22

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/08/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/09/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	~~BLANK CONTAMINANT~~	~~5.95~~	~~16~~	~~BJ~~

SRV

FORM I SV-TIC 1/87 Rev.

BPDR 0017691

SAMPLE DATA SUMMARY 104

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE ORIGINAL (Red)

CX931

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10598 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225406

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH025406A03

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 20 Date Analyzed: 11/05/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	16	B
67-64-1	Acetone	12	BJ
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	13	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

FORM I VOA 1/87 Rev.

SAMPLE DATA SUMMARY 1

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO
ORIGINAL (Red)
CX931

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225406

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH025406A04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 20 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
100-51-6	Benzyl Alcohol	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
39638-32-9	bis(2-Chloroisopropyl)Ether	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-Propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
65-85-0	Benzoic Acid	2000	U
111-91-1	bis(2-Chloroethoxy)Methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	170	J
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-Methylphenol	410	U
91-57-6	2-Methylnaphthalene	230	J
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethyl Phthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U

FORM I SV-1 1/87 Rev.

SAMPLE DATA SUMMARY

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE No.

CX931 ORIGINAL (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225406

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH025406A04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 20 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	87	J
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Promophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	210	J
120-12-7	Anthracene	410	U
84-74-2	Di-n-Butylphthalate	410	U
206-44-0	Fluoranthene	260	J
129-00-0	Pyrene	240	J
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	830	U
56-55-3	Benzo(a)Anthracene	140	J
218-01-9	Chrysene	150	J
117-81-7	bis(2-Ethylhexyl)Phthalate	420	B
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	190	JX
207-08-9	Benzo(k)Fluoranthene	190	JX
50-32-8	Benzo(a)Pyrene	100	J
193-39-5	Indeno(1,2,3-cd)Pyrene	59	J
53-70-3	Dibenzo(a,h)Anthracene	410	U
191-24-2	Benzo(g,h,i)Perylene	410	U

(1) - Cannot be separated from Diphenylamine

X=indistinguishable isomers

FORM I SV-2 1/87 Rev.

SAMPLE DATA SUMMARY

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX931

ORIGINAL (Red)

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225406

Sample wt/vol: 30.0 (g/mL) G Lab File ID: PC025406A08

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 20 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/23/88

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 20.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	200	U
319-85-7	beta-BHC	200	U
319-86-8	delta-BHC	200	U
58-89-9	gamma-BHC (Lindane)	200	U
76-44-8	Heptachlor	200	U
309-00-2	Aldrin	200	U
1024-57-3	Heptachlor epoxide	200	U
959-98-8	Endosulfan I	200	U
60-57-1	Dieldrin	400	U
72-55-9	4,4'-DDE	400	U
72-20-8	Endrin	400	U
33213-65-9	Endosulfan II	400	U
72-54-8	4,4'-DDD	400	U
1031-07-8	Endosulfan sulfate	400	U
50-29-3	4,4'-DDT	400	U
72-43-5	Methoxychlor	2000	U
53494-70-5	Endrin ketone	400	U
5103-71-9	alpha-Chlordane	2000	U
5103-74-2	gamma-Chlordane	2000	U
8001-35-2	Toxaphene	4000	U
12674-11-2	Aroclor-1016	2000	U
11104-28-2	Aroclor-1221	2000	U
11141-16-5	Aroclor-1232	2000	U
53469-21-9	Aroclor-1242	2000	U
12672-29-6	Aroclor-1248	2000	U
11097-69-1	Aroclor-1254	4000	U
11096-82-5	Aroclor-1260	13000	C

FORM I PEST 1/87 Rev.

SAMPLE DATA SUMMARY 75

ORIGINAL (Red)

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE No.: CX932

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225407

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GR025407A03

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 27 Date Analyzed: 11/05/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

SAMPLE DATA SUMMARY

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE N

CX931

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225406

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH025406A04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 20 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.5 Dilution Factor: 1.00

Number TICs found: 11

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	~~BLANK CONTAMINANT~~	~~4.70~~	~~1500~~	~~BJ~~
2.	~~BLANK CONTAMINANT~~	~~4.87~~	~~1900~~	~~BJ~~
3.	UNKNOWN	5.45	330	J
4.	ALDOL	5.80	1800	AJ
5.	ALDOL	5.90	500	AJ
6. 108-67-8	BENZENE, 1,3,5-TRIMETHYL-	6.05	290	J
7.	ALDOL	6.28	250	AJ
8.	UNKNOWN	6.90	620	J
9.	UNKNOWN	12.24	500	J
10.	UNKNOWN	14.64	330	J
11.	UNKNOWN	20.65	500	J

FORM I SV-TIC 1/87 Re

SAMPLE DATA SUMMARY

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX93Z

ORIGINAL (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10599 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225407

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GR025407A03

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 27 Date Analyzed: 11/05/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	12	B
67-64-1	Acetone	10	BJ
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	Trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Total Xylenes	7	U

FORM I VOA 1/87 Rev.

SAMPLE DATA SUMMARY

BPDR 0017698

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE)

CX932 ORIGINAL (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225407

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GJ025407B04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 27 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	450	U
111-44-4	bis(2-Chloroethyl)Ether	450	U
95-57-8	2-Chlorophenol	450	U
541-73-1	1,3-Dichlorobenzene	450	U
106-46-7	1,4-Dichlorobenzene	450	U
100-51-6	Benzyl Alcohol	450	U
95-50-1	1,2-Dichlorobenzene	450	U
95-48-7	2-Methylphenol	450	U
39638-32-9	bis(2-Chloroisopropyl)Ether	450	U
106-44-5	4-Methylphenol	450	U
621-64-7	N-Nitroso-Di-n-Propylamine	450	U
67-72-1	Hexachloroethane	450	U
98-95-3	Nitrobenzene	450	U
78-59-1	Isophorone	450	U
88-75-5	2-Nitrophenol	450	U
105-67-9	2,4-Dimethylphenol	450	U
65-85-0	Benzoic Acid	2200	U
111-91-1	bis(2-Chloroethoxy)Methane	450	U
120-83-2	2,4-Dichlorophenol	450	U
120-82-1	1,2,4-Trichlorobenzene	450	U
91-20-3	Naphthalene	450	U
106-47-8	4-Chloroaniline	450	U
87-68-3	Hexachlorobutadiene	450	U
59-50-7	4-Chloro-3-Methylphenol	450	U
91-57-6	2-Methylnaphthalene	450	U
77-47-4	Hexachlorocyclopentadiene	450	U
88-06-2	2,4,6-Trichlorophenol	450	U
95-95-4	2,4,5-Trichlorophenol	2200	U
91-58-7	2-Chloronaphthalene	450	U
88-74-4	2-Nitroaniline	2200	U
131-11-3	Dimethyl Phthalate	450	U
208-96-8	Acenaphthylene	450	U
606-20-2	2,6-Dinitrotoluene	450	U

SAMPLE DATA SUMMARY

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N

CX932

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225407

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GJ025407B04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 27 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2200	U
83-32-9	Acenaphthene	450	U
51-28-5	2,4-Dinitrophenol	2200	U
100-02-7	4-Nitrophenol	2200	U
132-64-9	Dibenzofuran	450	U
121-14-2	2,4-Dinitrotoluene	450	U
84-66-2	Diethylphthalate	450	U
7005-72-3	4-Chlorophenyl-phenylether	450	U
86-73-7	Fluorene	450	U
100-01-6	4-Nitroaniline	2200	U
534-52-1	4,6-Dinitro-2-Methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	450	U
101-55-3	4-Bromophenyl-phenylether	450	U
118-74-1	Hexachlorobenzene	450	U
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	450	U
120-12-7	Anthracene	450	U
84-74-2	Di-n-Butylphthalate	56	J
206-44-0	Fluoranthene	450	U
129-00-0	Pyrene	450	U
85-68-7	Butylbenzylphthalate	450	U
91-94-1	3,3'-Dichlorobenzidine	900	U
56-55-3	Benzo(a)Anthracene	450	U
218-01-9	Chrysene	450	U
117-81-7	bis(2-Ethylhexyl)Phthalate	280	BJ
117-84-0	Di-n-Octyl Phthalate	450	U
205-99-2	Benzo(b)Fluoranthene	450	U
207-08-9	Benzo(k)Fluoranthene	450	U
50-32-8	Benzo(a)Pyrene	450	U
193-39-5	Indeno(1,2,3-cd)Pyrene	450	U
53-70-3	Dibenzo(a,h)Anthracene	450	U
191-24-2	Benzo(g,h,i)Perylene	450	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

SAMPLE DATA SUMMARY

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX932

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225407

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 27 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/27/88

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	11.	U
319-85-7	beta-BHC	11.	U
319-86-8	delta-BHC	11.	U
58-89-9	gamma-BHC (Lindane)	11.	U
76-44-8	Heptachlor	11.	U
309-00-2	Aldrin	11.	U
1024-57-3	Heptachlor epoxide	11.	U
959-98-8	Endosulfan I	11.	U
60-57-1	Dieldrin	22.	U
72-55-9	4,4'-DDE	22.	U
72-20-8	Endrin	22.	U
33213-65-9	Endosulfan II	22.	U
72-54-8	4,4'-DDD	22.	U
1031-07-8	Endosulfan sulfate	22.	U
50-29-3	4,4'-DDT	22.	U
72-43-5	Methoxychlor	110	U
53494-70-5	Endrin ketone	22.	U
5103-71-9	alpha-Chlordane	110	U
5103-74-2	gamma-Chlordane	110	U
8001-35-2	Toxaphene	220	U
12674-11-2	Aroclor-1016	110	U
11104-28-2	Aroclor-1221	110	U
11141-16-5	Aroclor-1232	110	U
53469-21-9	Aroclor-1242	110	U
12672-29-6	Aroclor-1248	110	U
11097-69-1	Aroclor-1254	220	U
11096-82-5	Aroclor-1260	220	U

FORM I PEST 1/87 Rev.

SAMPLE DATA SUMMARY

ORIGINAL

EPA SAMPLE N

CX932

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225407

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GJ025407B04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 27 dec. ____ Date Extracted: 11/03/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/16/88

GPC Cleanup: (Y/N) N pH: 7.4 Dilution Factor: 1.00

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	~~BLANK CONTAMINANT~~	~~4.80~~	~~1600~~	~~BJ~~
2.	~~BLANK CONTAMINANT~~	~~4.88~~	~~2000~~	~~BJ~~
3.	UNKNOWN	5.45	270	J
4.	ALDOL	5.78	820	AJ
5.	ALDOL	5.90	410	AJ
6. 32046-26-7	PYRAZINE, METHYL-, 1,4-DIOXI	10.95	1000	J

FORM I SV-TIC 1/87 Rev

SAMPLE DATA SUMMARY

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX933

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225367

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CR025367C23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/02/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	2	J
75-00-3	Chloroethane	160	
75-09-2	Methylene Chloride	20	
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	2	J
75-34-3	1,1-Dichloroethane	110	
540-59-0	1,2-Dichloroethene (total)	12	
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	3	J
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	9	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	12	
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	45	
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	21	
100-42-5	Styrene	99	
1330-20-7	Total Xylenes	40	

FORM I VOA 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX933

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225367

Sample wt/vol: 500 (g/mL) ML Lab File ID: GRJ25367A16

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/19/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/23/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	20	U
111-44-4	bis(2-Chloroethyl)Ether	20	U
95-57-8	2-Chlorophenol	20	U
541-73-1	1,3-Dichlorobenzene	20	U
106-46-7	1,4-Dichlorobenzene	20	U
100-51-6	Benzyl Alcohol	20	U
95-50-1	1,2-Dichlorobenzene	20	U
95-48-7	2-Methylphenol	20	U
39638-32-9	bis(2-Chloroisopropyl)Ether	20	U
106-44-5	4-Methylphenol	20	U
621-64-7	N-Nitroso-Di-n-Propylamine	20	U
67-72-1	Hexachloroethane	20	U
98-95-3	Nitrobenzene	20	U
78-59-1	Isophorone	20	U
88-75-5	2-Nitrophenol	20	U
105-67-9	2,4-Dimethylphenol	20	U
65-85-0	Benzoic Acid	100	U
111-91-1	bis(2-Chloroethoxy)Methane	20	U
120-83-2	2,4-Dichlorophenol	20	U
120-82-1	1,2,4-Trichlorobenzene	41	
91-20-3	Naphthalene	20	U
106-47-8	4-Chloroaniline	20	U
87-68-3	Hexachlorobutadiene	20	U
59-50-7	4-Chloro-3-Methylphenol	20	U
91-57-6	2-Methylnaphthalene	96	
77-47-4	Hexachlorocyclopentadiene	20	U
88-06-2	2,4,6-Trichlorophenol	20	U
95-95-4	2,4,5-Trichlorophenol	100	U
91-58-7	2-Chloronaphthalene	20	U
88-74-4	2-Nitroaniline	100	U
131-11-3	Dimethyl Phthalate	20	U
208-96-8	Acenaphthylene	20	U
606-20-2	2,6-Dinitrotoluene	20	U

FORM I SV-1 1/87 Rev.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX933

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225367

Sample wt/vol: 500 (g/mL) ML Lab File ID: GRJ25367A16

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/19/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/23/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	100	U
83-32-9	Acenaphthene	9	J
51-28-5	2,4-Dinitrophenol	100	U
100-02-7	4-Nitrophenol	100	U
132-64-9	Dibenzofuran	26	
121-14-2	2,4-Dinitrotoluene	20	U
84-66-2	Diethylphthalate	20	U
7005-72-3	4-Chlorophenyl-phenylether	20	U
86-73-7	Fluorene	46	
100-01-6	4-Nitroaniline	100	U
534-52-1	4,6-Dinitro-2-Methylphenol	100	U
86-30-6	N-Nitrosodiphenylamine (1)	20	U
101-55-3	4-Bromophenyl-phenylether	20	U
118-74-1	Hexachlorobenzene	20	U
87-86-5	Pentachlorophenol	18	J
85-01-8	Phenanthrene	47	
120-12-7	Anthracene	4	J
84-74-2	Di-n-Butylphthalate	7	J
206-44-0	Fluoranthene	11	J
129-00-0	Pyrene	8	J
85-68-7	Butylbenzylphthalate	20	U
91-94-1	3,3'-Dichlorobenzidine	40	U
56-55-3	Benzo(a)Anthracene	20	U
218-01-9	Chrysene	5	J
117-81-7	bis(2-Ethylhexyl)Phthalate	370	
117-84-0	Di-n-Octyl Phthalate	20	U
205-99-2	Benzo(b)Fluoranthene	4	JX
207-08-9	Benzo(k)Fluoranthene	4	JX
50-32-8	Benzo(a)Pyrene	20	U
193-39-5	Indeno(1,2,3-cd)Pyrene	20	U
53-70-3	Dibenzo(a,h)Anthracene	20	U
191-24-2	Benzo(g,h,i)Perylene	20	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

SAMPLE DATA SUMMARY 102

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX933

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225367

Sample wt/vol: 1000 (g/mL) ML Lab File ID: PC025367B06

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 11/01/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/12/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 4.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.20	U
319-85-7	beta-BHC	0.20	U
319-86-8	delta-BHC	0.20	U
58-89-9	gamma-BHC (Lindane)	0.20	U
76-44-8	Heptachlor	0.20	U
309-00-2	Aldrin	0.20	U
1024-57-3	Heptachlor epoxide	0.20	U
959-98-8	Endosulfan I	0.20	U
60-57-1	Dieldrin	0.40	U
72-55-9	4,4'-DDE	0.40	U
72-20-8	Endrin	0.40	U
33213-65-9	Endosulfan II	0.40	U
72-54-8	4,4'-DDD	0.40	U
1031-07-8	Endosulfan sulfate	0.40	U
50-29-3	4,4'-DDT	0.40	U
72-43-5	Methoxychlor	2.0	U
53494-70-5	Endrin ketone	0.40	U
5103-71-9	alpha-Chlordane	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
8001-35-2	Toxaphene	4.0	U
12674-11-2	Aroclor-1016	2.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	2.0	U
53469-21-9	Aroclor-1242	2.0	U
12672-29-6	Aroclor-1248	2.0	U
11097-69-1	Aroclor-1254	120	
11096-82-5	Aroclor-1260	4.0	U

FORM I PEST 1/87 Rev.

ORIGINAL (Red)

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX933

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225367

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CR025367C23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/02/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123-91-1	1,4-DIOXANE	13.97	13	J
2.	UNKNOWN	25.62	7.0	J
3. 3073-66-3	CYCLOHEXANE,1,1,3-TRIMETHYL-	27.09	10	J
4. 1678-81-5	CYCLOHEXANE,1,2,3-TRIMETHYL-	31.67	17	J
5. 694-87-1	BICYCLO[4.2.0]OCTA-1,3,5-TRI	32.74	150	J
6.	UNKNOWN	35.64	25	J
7.	UNKNOWN	36.49	12	J

ORIGINAL (Red)

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE No.: CX933

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225367

Sample wt/vol: 500 (g/mL) ML Lab File ID: GRJ25367A16

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/19/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/23/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 20

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	6.33	1600	J
2.	UNKNOWN	6.98	3100	J
3. 17302-27-1	NONANE, 2,5-DIMETHYL-	7.35	4400	J
4.	UNKNOWN	7.68	1600	J
5.	UNKNOWN HYDROCARBON	7.83	1600	J
6.	UNKNOWN HYDROCARBON	7.92	2400	J
7.	UNKNOWN HYDROCARBON	8.27	6800	J
8.	UNKNOWN HYDROCARBON	8.37	2300	J
9.	UNKNOWN CYCLIC HYDROCARBON	8.62	1500	J
10.	UNKNOWN HYDROCARBON	8.77	1900	J
11.	UNKNOWN HYDROCARBON	8.85	2600	J
12.	UNKNOWN HYDROCARBON	9.09	6400	J
13.	UNKNOWN CYCLIC HYDROCARBON	9.45	1600	J
14.	UNKNOWN HYDROCARBON	9.55	1400	J
15. 629-59-4	TETRADECANE	9.85	4400	J
16.	UNKNOWN HYDROCARBON	10.29	4800	J
17. 544-76-3	HEXADECANE	11.24	1700	J
18. 629-78-7	HEPTADECANE	11.87	1700	J
19. 593-45-3	OCTADECANE	12.49	1600	J
20.	UNKNOWN HYDROCARBON	13.07	1600	J

ORIGINAL

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX934

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225371

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CR025371B23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	12	
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	13	
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	2	J
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

FORM I VOA 1/87 Rev.

BPDR 0017709

SAMPLE DATA SUMMARY

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. ORIGINAL (Red)

CX934

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225371

Sample wt/vol: 500 (g/mL) ML Lab File ID: GH025371A08

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/12/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 0.50

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	13	
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	46	
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	130	
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

FORM I SV-1 1/87 Rev.

SAMPLE DATA SUMMARY 108

ORIGINAL (Red)

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX934

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225371

Sample wt/vol: 500 (g/mL) ML Lab File ID: GH025371A08

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/12/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 0.50

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenzo(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

ORIGINAL (Red)

1D.
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: CX934

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225371

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/30/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/31/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	6.3	
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST 1/87 Rev.

ORIGINAL (Red)

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX934

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225371

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CR025371B23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	ETHANE,1,1,2-TRICHLORO-1,2,2	12.30	11	J

FORM I VOA-TIC 1/87 Rev.

BPDR 0017713

ORIGINAL (Red)

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: CX934

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225371

Sample wt/vol: 500 (g/mL) ML Lab File ID: GH025371A08

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/12/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 0.50

Number TICs found: 10

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 36687-99-7	2-BUTANONE, 3-ETHOXY-3-METHY	5.10	10	J
2.	~~BLANK CONTAMINANT~~	~~5.48~~	~~32~~	~~BJ~~
3.	~~BLANK CONTAMINANT~~	~~5.72~~	~~64~~	~~BJ~~
4.	UNKNOWN	7.37	50	J
5.	DIMETHYL PHENOL	8.03	16	J
6.	DICHLOROPHENOL	8.44	24	J
7. 17301-32-5	UNDECANE, 4,7-DIMETHYL-	9.17	16	J
8. 3913-02-8	1-OCTANOL, 2-BUTYL-	10.00	12	J
9.	UNKNOWN	10.77	12	J
10.	UNKNOWN	15.75	24	J

SRK

FORM I SV-TIC 1/87 Rev.

BPDR 0017714

SAMPLE DATA SUMMARY

ORIGINAL

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.(med)

CX935

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225373

Sample wt/vol: 2.9 (g/mL) ML Lab File ID: CR025373B21

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column: (pack/cap) PACK Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	17	U
74-83-9	Bromomethane	17	U
75-01-4	Vinyl Chloride	5	J
75-00-3	Chloroethane	21	
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	17	U
75-15-0	Carbon Disulfide	34	
75-35-4	1,1-Dichloroethene	4	J
75-34-3	1,1-Dichloroethane	250	
540-59-0	1,2-Dichloroethene (total)	16	
67-66-3	Chloroform	9	U
107-06-2	1,2-Dichloroethane	16	
78-93-3	2-Butanone	17	U
71-55-6	1,1,1-Trichloroethane	9	U
56-23-5	Carbon Tetrachloride	9	U
108-05-4	Vinyl Acetate	17	U
75-27-4	Bromodichloromethane	9	U
78-87-5	1,2-Dichloropropane	9	U
10061-01-5	cis-1,3-Dichloropropene	9	U
79-01-6	Trichloroethene	23	
124-48-1	Dibromochloromethane	9	U
79-00-5	1,1,2-Trichloroethane	41	
71-43-2	Benzene	110	
10061-02-6	Trans-1,3-Dichloropropene	9	U
75-25-2	Bromoform	9	U
108-10-1	4-Methyl-2-Pentanone	17	U
591-78-6	2-Hexanone	17	U
127-18-4	Tetrachloroethene	9	U
79-34-5	1,1,2,2-Tetrachloroethane	2	J
108-88-3	Toluene	9	U
108-90-7	Chlorobenzene	9	U
100-41-4	Ethylbenzene	9	U
100-42-5	Styrene	9	U
1330-20-7	Total Xylenes	9	U

FORM I VOA 1/87 Rev.

ORIGINAL (Red)

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX935

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225373

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GR025373A22

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/08/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/09/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methyl phenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

ORIGINAL (Red)

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX935

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225373

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GR025373A22

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/08/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/09/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	4	J
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenzo(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

ORIGINAL

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. (Red)

CX935

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225373

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/30/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/31/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST 1/87 Rev.

ORIGINAL (Red)

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX935

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225373

Sample wt/vol: 2.9 (g/mL) ML Lab File ID: CR025373B23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column (pack/cap) PACK Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

BPDR 0017719

ORIGINAL (Red)

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX935

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225373

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GR025373A22

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/08/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/09/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	~~BLANK CONTAMINANT~~	~~5.98~~	~~14~~	~~BJ~~

SRL

FORM I SV-TIC 1/87 Rev.

ORIGINAL (Red)

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX936

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225375

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025375B21

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

FORM I VOA 1/87 Rev.

BPDR 0017721

SAMPLE DATA SUMMARY

ORIGINAL
(Red)

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX936

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225375

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025375A04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/05/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

ORIGINAL (Red)

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX936

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225375

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025375A04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/05/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenzo(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

ORIGINAL

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX936

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225375

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/30/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/31/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST 1/87 Rev.

BPDR 0017724

ORIGINAL
(Red)

EPA SAMPLE NO.

CX936

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225375

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025375B23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	ETHANE,1,1,2-TRICHLORO-1,2,2	12.35	9.0	J

FORM I VOA-TIC 1/87 Rev.

BPDR 0017725

SAMPLE DATA SUMMARY

ORIGINAL
(Red)

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX936

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225375

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025375A04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/05/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

ORIGINAL

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX937

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225377

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025377C23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	1	J
75-34-3	1,1-Dichloroethane	2	J
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	51	
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

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SAMPLE DATA SUMMARY 123

ORIGINAL
(Red)

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX937

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225377

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025377A04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/05/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

FORM I SV-1 1/87 Rev.

SAMPLE DATA SUMMARY

ORIGINAL
(Red)

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX937

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225377

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025377A04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/05/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenzo(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

SAMPLE DATA SUMMARY 90

ORIGINAL (Red)

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX937

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225377

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/30/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/31/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

Original (Red)

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX937

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225377

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025377C23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

ORIGINAL (Red)

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX937

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225377

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025377A04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/05/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I SV-TIC 1/87 Rev.

BPDR 0017732

ORIGINAL

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX938

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225379

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CR025379B23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	29	
540-59-0	1,2-Dichloroethene (total)	5	
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	2	J
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

FORM I VOA 1/87 Rev.

BPDR 0017733

SAMPLE DATA SUMMARY

ORIGINAL
(Red)

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX938

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225379

Sample wt/vol: 600 (g/mL) ML Lab File ID: GR025379A22

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/08/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/09/88

GPC Cleanup: (Y/N) N . pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	17	U
111-44-4	bis(2-Chloroethyl)Ether	17	U
95-57-8	2-Chlorophenol	17	U
541-73-1	1,3-Dichlorobenzene	17	U
106-46-7	1,4-Dichlorobenzene	17	U
100-51-6	Benzyl Alcohol	17	U
95-50-1	1,2-Dichlorobenzene	17	U
95-48-7	2-Methylphenol	17	U
39638-32-9	bis(2-Chloroisopropyl)Ether	17	U
106-44-5	4-Methylphenol	17	U
621-64-7	N-Nitroso-Di-n-Propylamine	17	U
67-72-1	Hexachloroethane	17	U
98-95-3	Nitrobenzene	17	U
78-59-1	Isophorone	17	U
88-75-5	2-Nitrophenol	17	U
105-67-9	2,4-Dimethylphenol	17	U
65-85-0	Benzoic Acid	84	U
111-91-1	bis(2-Chloroethoxy)Methane	17	U
120-83-2	2,4-Dichlorophenol	17	U
120-82-1	1,2,4-Trichlorobenzene	17	U
91-20-3	Naphthalene	17	U
106-47-8	4-Chloroaniline	17	U
87-68-3	Hexachlorobutadiene	17	U
59-50-7	4-Chloro-3-Methylphenol	17	U
91-57-6	2-Methylnaphthalene	17	U
77-47-4	Hexachlorocyclopentadiene	17	U
88-06-2	2,4,6-Trichlorophenol	17	U
95-95-4	2,4,5-Trichlorophenol	84	U
91-58-7	2-Chloronaphthalene	17	U
88-74-4	2-Nitroaniline	84	U
131-11-3	Dimethyl Phthalate	17	U
208-96-8	Acenaphthylene	17	U
606-20-2	2,6-Dinitrotoluene	17	U

FORM I SV-1 1/87 Rev.

BPDR 0017734

SAMPLE DATA SUMMARY S3

ORIGINAL (Red)

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX938

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225379

Sample wt/vol: 600 (g/mL) ML Lab File ID: GR025379A22

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/08/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/09/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	84	U
83-32-9	Acenaphthene	17	U
51-28-5	2,4-Dinitrophenol	84	U
100-02-7	4-Nitrophenol	84	U
132-64-9	Dibenzofuran	17	U
121-14-2	2,4-Dinitrotoluene	17	U
84-66-2	Diethylphthalate	17	U
7005-72-3	4-Chlorophenyl-phenylether	17	U
86-73-7	Fluorene	17	U
100-01-6	4-Nitroaniline	84	U
534-52-1	4,6-Dinitro-2-Methylphenol	84	U
86-30-6	N-Nitrosodiphenylamine (1)	17	U
101-55-3	4-Bromophenyl-phenylether	17	U
118-74-1	Hexachlorobenzene	17	U
87-86-5	Pentachlorophenol	84	U
85-01-8	Phenanthrene	17	U
120-12-7	Anthracene	17	U
84-74-2	Di-n-Butylphthalate	17	U
206-44-0	Fluoranthene	17	U
129-00-0	Pyrene	17	U
85-68-7	Butylbenzylphthalate	17	U
91-94-1	3,3'-Dichlorobenzidine	33	U
56-55-3	Benzo(a)Anthracene	17	U
218-01-9	Chrysene	17	U
117-81-7	bis(2-Ethylhexyl)Phthalate	17	U
117-84-0	Di-n-Octyl Phthalate	17	U
205-99-2	Benzo(b)Fluoranthene	17	U
207-08-9	Benzo(k)Fluoranthene	17	U
50-32-8	Benzo(a)Pyrene	17	U
193-39-5	Indeno(1,2,3-cd)Pyrene	17	U
53-70-3	Dibenzo(a,h)Anthracene	17	U
191-24-2	Benzo(g,h,i)Perylene	17	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

ORIGINAL
(Red)

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX938

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225379

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/30/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/31/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST 1/87 Rev.

BPDR 0017736

SAMPLE DATA SUMMARY

ORIGINAL
(Red)

EPA SAMPLE NO.

CX938

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225379

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CR025379B23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	ETHANE,1,1,2-TRICHLORO-1,2,2	12.30	8.0	J

FORM I VOA-TIC 1/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX938

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225379

Sample wt/vol: 600 (g/mL) ML Lab File ID: GR025379A22

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/08/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/09/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.85	30	J

FORM I SV-TIC 1/87 Rev.

ORIGINAL (Red)

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX939

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225381

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025381B23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

FORM I VOA 1/87 Rev.

ORIGINAL
(Red)

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX939

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225381

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025381A04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/05/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

ORIGINAL (Red)

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX939

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225381

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025381A04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/05/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenzo(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

BPDR 0017741

ORIGINAL (Red)

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX939

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225381

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/30/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/30/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST 1/87 Rev.

BPDR 0017742

SAMPLE DATA SUMMARY

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX939

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225381

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025381B21

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX939

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225381

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025381A04

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/05/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.07	20	J

FORM I SV-TIC 1/87 Rev.

ORIGINAL (Red)

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX940

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225383

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025383B23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

FORM I VOA 1/87 Rev.

ORIGINAL (Red)

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX940

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225383

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025383A21

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/06/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

FORM I SV-1 1/87 Rev.

BPDR 0017746

SAMPLE DATA SUMMARY S2

ORIGINAL (Red)

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX940

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225383

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025383A21

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/06/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3	J
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenzo(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

ORIGINAL (Red)

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX940

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225383

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/30/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/30/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST 1/87 Rev.

BPDR 0017748

SAMPLE DATA SUMMARY

ORIGINAL
(Red)

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX940

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225383

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025383B23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	ETHANE,1,1,2-TRICHLORO-1,2,2	12.30	10	J

FORM I VOA-TIC 1/87 Rev.

BPDR 0017749

SAMPLE DATA SUMMARY

ORIGINAL
(Red)

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX940

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225383

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025383A21

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/06/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN HYDROCARBON	5.40	12	J

FORM I SV-TIC 1/87 Rev.

ORIGINAL

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX941

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225384

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025384B21

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	26	
540-59-0	1,2-Dichloroethene (total)	5	
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	2	J
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

FORM I VOA 1/87 Rev.

ORIGINAL (Red)

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX941

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225384

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025384A21

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/06/88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

FORM I SV-1 1/87 Rev.

BPDR 0017752

SAMPLE DATA SUMMARY

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX941

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225384

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025384A21

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/06/88

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenzo(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX941RE

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225384

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GR025384A06

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/09/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/10/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

FORM I SV-1 1/87 Rev.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX941RE

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225384

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GR025384A06

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/09/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/10/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlor^phenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenzo(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX941

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225384

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/30/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/30/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfar I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	ndrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST 1/87 Rev.

BPDR 0017756

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX941

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225384

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025384B23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	ETHANE,1,1,2-TRICHLORO-1,2,2	12.30	10	J

FORM I VOA-TIC 1/87 Rev.

BPDR 0017757

ORIGINAL
(Red)

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX941

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225384

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025384A21

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/06/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.38	60	J

FORM I SV-TIC 1/87 Rev.

ORIGINAL
(Red)

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX941RE

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225384

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GR025384A06

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/09/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/10/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.45	32	J

FORM I SV-TIC 1/87 Rev.

BPDR 0017759

ORIGI

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.:

CX942

Lab Name: COMPUCHEM LABS Contract: 53-01-7397

Lab Code: COMPU Case No.: 10639 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225408

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH025408B17

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 0 Date Analyzed: 11/03/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	9	B
67-64-1	Acetone	12	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	2	BJ
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

FORM I VOA 1/87 Rev.

SAMPLE DATA SUMMARY

ORIGINAL
(Red)

B-P hereby consents to the terms of this Consent Order and Agreement and hereby knowingly waives its right to appeal from this Order, which rights may otherwise be available under the Act of April 9, 1929, P.L. 177, as amended by the Act of December 3, 1970, P.L. 834, No. 275, 71 P.S. §510 et seq., and the Administrative Agency Law, 2 Pa. C.S. §103(a), and Chapters 5A and 7A. B-P hereby covenants and agrees that the undersigned are authorized to consent to the entry of this Order and to execute this Agreement on behalf of B-P.

FOR BRESLUBE-PENN, INC.

"[illegible]"

Vice-President

"[illegible]"

CORPORATE SEAL

Attorney for Breslube-Penn, Inc.

ORIGINAL
(Red)

APPENDIX D

ORIGINAL
(Red)

March 12, 1984

SUBJECT: Breslube Penn, Inc.
Moon Township
Allegheny County
EPA I.D.#PAD986690796

TO: File

FROM: James R. Shack
Solid Waste Specialist
Bureau of Solid Waste Management

THROUGH: Dan Peterson
Operations Supervisor
Bureau of Solid Waste Management

On February 29, 1984, various samples were collected by representatives of the EPA and Pa. DER at the above-referenced facility. Representing EPA were James Bailey and Scott McPhilliamy, representing the Allegheny County Health Department, Joe Ruffing, and for the Department were Tony Orlando, Dan Peterson, Jim Shack, Ken Bowman, Sam Harper and Russ McGregor. Representatives for Breslube were Ashen Yelkin, Vice President of Operations and Maryann Cilli, Chemist. The following areas were considered for sample collection:

Sample Point 1 - Composite of Wiseman's acid clay waste piles. Western corner of property, sampled for EP toxic, TOX (2510281) & PCB (2510282). 11:08.

Sample Point 2 - Breslube filter cake, western side of active lagoon. Sampled for EP toxic, TOX (2510283) & PCB's (2510284). 11:24.

Sample Point 3 - Green dumpster No. 1, nearest to tank 108. Sampled for EP toxic, TOX (2510285) & PCB's (2510286). 11:30.

Sample Point 4 - Dumpster No. 2, near west side of active lagoon. Sampled for EP toxic, TOX (2510287) & PCB's (2510288). 11:45.

Sample Point 5 - Dumpster No. 3, adjacent to southern side of active lagoon. Not sampled.

Sample Point 6 - Active lagoon. Sampled by EPA. 11:54.

Sample Point 7 - Closed lagoon (2). Not sampled.

Sample Point 8 - Tank 108, # 4 fuel oil. Sampled for BTU (2510289), flash point (2510290), EP toxic, TOX (2510291) & PCB's (2510292). 12:31.

Sample Points 9, 10, 11 - Tanks 106, 107, sampled by EPA. Tank 105 (sample point 11, not sampled) 12:30.

Sample Points 12, 13, 14, 15 - Open top tanks not sampled.

ORIGINAL
(Red)

* Sample Point 16 - Tank 100, 500 k gallon blue tank. Sludge sampled by EPA. 12:51.

Sample Points 17 and 18 - Sludge from diked areas not sampled.

* Sample Point 19 - crankcase oil (tank 109) sampled by EPA. 1:03.

* Sample Point 20 - Outfall. Sampled for BOD, COD, (2510280). Split with EPA. 1:16.

Sample Point 21 - Vacuum still bottom sludge. Not sampled.

Sample Point 22 - Light ends from dehydrator. Sampled for flash point (2510293). 1:28.

JRS/ld

Attachments - 1

cc: Ken Bowman
Russ McGregor
Tony Orlando
Chuck Duritsa
Sam Harper
Joe Ruffing, ACHD

ORIGINAL
(Red)

Samples not verified

sample #
2510281
org. halides 0.16%
EP TOX
As < 0.005 ppm
Ba 0.17
Cd 0.01
Cr 0.07
Pb 0.22
Hg 0.002
Se 0.01
Ag 0.02

sample #
2510283
org. halides 0.067%
EP TOX
As 0.005 ppm
Ba 0.12
Cd 0.01
Cr 0.07
Pb 0.36
Hg 0.002
Se 0.01
Ag 0.02

sample #
2510285
org. halides 0.302%
EP TOX
no results

sample #
2510287
org. halides 0.029%
EP TOX
As 0.0085 ppm
Ba 0.11
Cd 0.01
Cr <0.07
Pb 0.3
Hg <0.002
Se <0.01
Ag <0.02

sample #
2510290
flash pt - 68.7° C

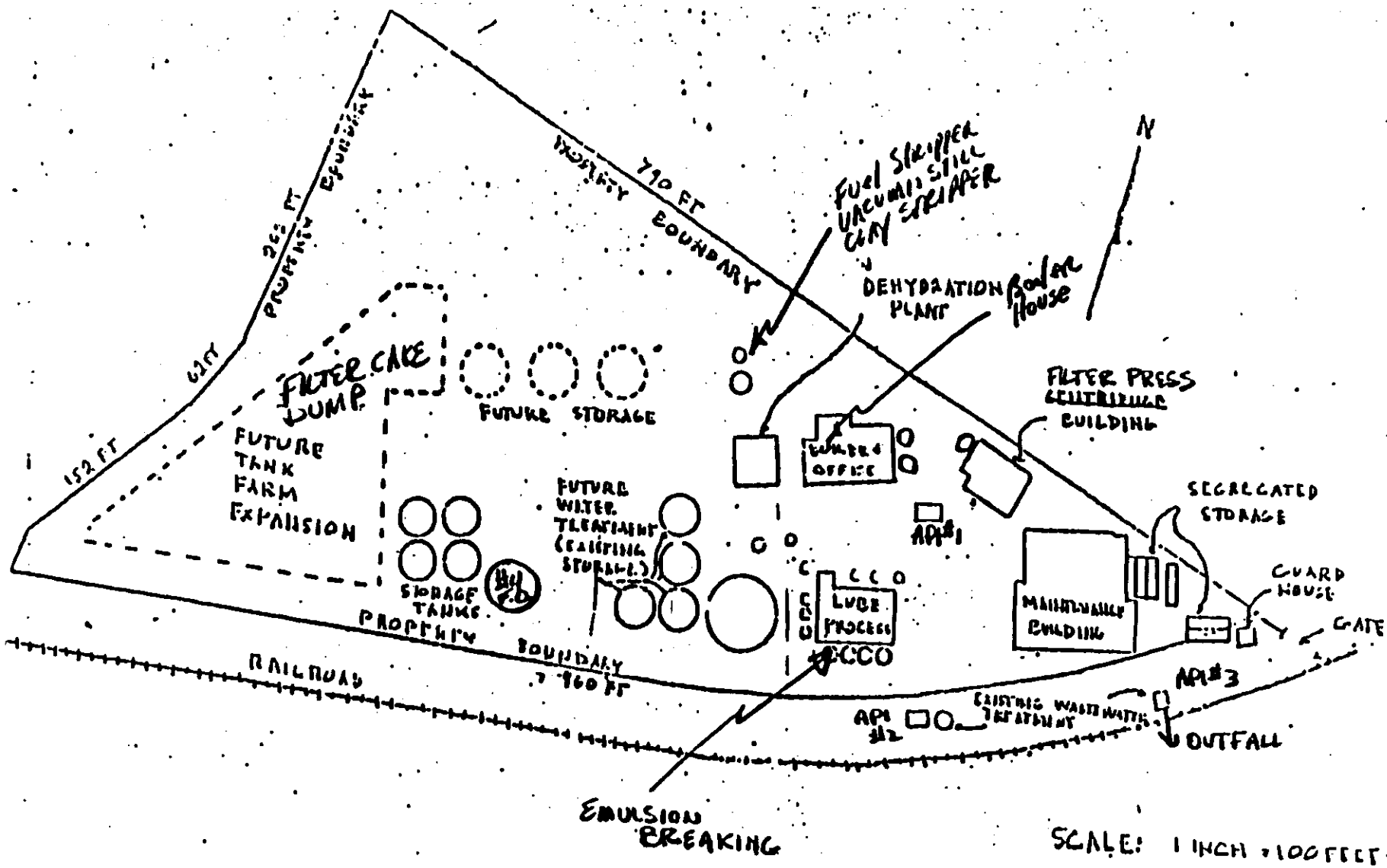
sample #
2510291
org. halides
~~flash pt~~ - 0.32%

ORIGINAL
(Red)

manilau from Hbg lab called

mple #		analysis		result
10281	[illegible] aste pile	TOX	organic halides	.16%
" 283	[illegible] filter cake	TOX		.067%
" 285	Green dumpster #1	TOX		.302%
" 287	dumpster #2	TOX		.029%
" 289	#4 Fuel Oil (finished)	BTU		18617
" 290		flash point		not done yet
" 291	Tank #108	TOX		.32%

ample # 2510291 finished #4 fuel oil
result TOX 32%
(a) exceeds 1/25/84 Guidelines of 1,000 ppm
(b) requires intensive analysis of Appendix A constituents



ORIGINAL (Red)

ORIGINAL

Lab Number 0571

20184

Date Received

.8-13.1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

ESTABLISHMENT	CASE	FACILITY	COLL NUMBER
Breslube Penn Inc	Breslube Penn Inc	Breslube	2510

CITY	MUNICIPALITY	PROGRAM	COLL NAME	TYPE TR	STD ANALYSIS
Allegheny	Moon Twp	SWM	J. Shack		SVD

CARD 1	D CODE ALL CARDS 4-16	LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24	TIME 25-28	KIND 29
1 / 2	Only Mun T Est Case Fac		0	M D Y	Hr Min	

CS 30-34	BUREAU 35-37 AMIS	SAMPLE NUMBER 38-43	STREAM NAME 44-57	RELATIVE POINT 58
	SWM	2510280		

DESCRIPTION WHERE SAMPLE TAKEN: Breslube Oil Co Outfall to Montour Run

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

Received by:

Legal Seal Condition:

BOD & COD

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

QUANTITATIVE RESULTS

ANALYSIS	UNITS	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

BPDR 0017768

ANALYST

DATE

ORIGINAL
Red)

WATER AND WASTEWATER REPORT

SAMPLE NUMBER - [illegible]

COLLECTOR - J. SHACK SWMS COLLECTOR NO - 2511280

ESTAB - BROOKLINE PONN INC

CASE NAME - BROOKLINE PONN INC

FACILITY - BROOKLINE

ID CODE - NONE WQN STATION NUMBER - 000

SAMPLING DATE - 0/00/00 TIME - 00 LAT - 00:00:00.0 LONG - 00:00:00.0

TYPE - 00 SOURCE - 00 STD ANAL - 500 RECEIVED ON - 3/01/84

REPORT REVIEWED BY DATE - 4/25/84

STORET	DESCRIPTION	RESULT	CONC	VERIFY BY	VERIFY DATE	COMM CODE
LABORATORY ANALYSIS :						
00310	BOD 5-DAY	385.0000	MG/L	G	LCW	3/12/84
00340	COD HI LEVEL	1190.0000	MG/L	G	REW	4/04/84

SAMPLE COMMENTS

NO SAMPLE COMMENTS

TOTAL NUMBER TEST FOR THIS SAMPLE 0

LAB-13.1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number 07662
ORIGINAL
Date Received 30284

ESTABLISHMENT	CASE	FACILITY	COLL NUMBER
Breslube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	2510

COUNTY	MUNICIPALITY	PROGRAM	COLL NAME	TYPE TR	STD ANALYSIS
Allegheny	Moon Twp	SWM	J. Shack		

CARD	ID CODE (ALL CARDS) 4-16	LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24	TIME 25-28	KIND 29
	Dnv Mun T Est Case Fac		0	M 02 D 29 Y 84	Hr 12 Min 31	

BUREAU 35-37 AMIS	SAMPLE NUMBER 38-43	STREAM NAME 44-57	RELATIVE POINT 58
SWM	2510289		

DESCRIPTION WHERE SAMPLE TAKEN Fuel Oil #4, Tank 105 Sample Point #5

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

Seal Condition

BTU value
Approved by Vince White

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

QUANTITATIVE RESULTS

ANALYSIS	UNITS	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

BPDR 0017770

ANALYST _____ DATE _____

ORIGINAL
(Red)

P. T. Tyler

ORIGINAL

Lab Number (Reg) 07710

Date Received 3/2/84

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Inc	Breslube Penn Inc	Breslube Penn Inc	2510
Moon Twp	SWM	J. Shack	

0 | 0 2 2 5 5 4 | 1 2 3 1

SWM | 7 5 1 0 2 9 2

Fuel Oil #4 Tank 105 Sample Point #8

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Rec.

Sealed by

Seal Condition

PCB's
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs in "oil" - None detected

Detection limit 10. mg/kg

QUANTITATIVE RESULTS

LYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

BPDR 0017772

ORIGINAL

Lab Number (Reg) 07709

Date Received 3/2/84

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

[illegible] Inc	Breslube Penn Inc	Breslube Penn Inc	2510
Mian Twp	Swm	J. Shack	

0 02 27 84 11 45

2 5 1 0 2 5 8

Dumpster Near diversion ditch Sample Point #4

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

Seal Condition

PCB's discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs - None detected

Detection limit 10 mg/kg

QUANTITATIVE RESULTS

	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

BPDR 0017773

ANALYST [illegible]

DATE [illegible]

ORIGINAL (Red) 07708

Date Received 3/2/84

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

[illegible] Inc	Breslube Penn Inc	Breslube Penn Inc	2510
[illegible]	Mesn Inc	Sum	T. Shack

0 | 0 2 2 9 8 9 | 3 0

2 5 1 0 7 8 6

Green Dumpster New Tanks Sample Point #3

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Sent No.

Sent Condition:

PCB's
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs in oil - none detected

Detection limit 10 mg/kg

QUANTITATIVE RESULTS

	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

BPDR 0017774

DATE [illegible]

ER-BL-13.1
7/83

1

Unscheduled

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

ORIGINAL (Red) ONA-56
Date Received 7/12/88

ESTABLISHMENT	CASE	FACILITY	COLL NUMBER
Bioslube-Penn Inc.	Montour Run	downstream - low flow	0509

COUNTY	MUNICIPALITY	PROGRAM	COLL NAME/PHONE NUMBER	TYPE TR	STD ANALYSIS
Allegheny	Moon Twp.	106	P. Miller 412-645-7163		050

CARD (3)	ID CODE (ALL CARDS) 4-16	LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24	TIME 25-28	KIND
1 / 2	Cnty Mun T Est Case Fac.		0	M 07 D 11 Y 88	Hr 09 Min 05	

USGS Q 30 34	BUREAU 35-37 AMIS	SAMPLE NUMBER 38-43	STREAM NAME 44-57	RELATIVE POINT
	W05	0509718		

FULL DESCRIPTION WHERE SAMPLE TAKEN:

ADDITIONAL LAB ANALYS

CUSTODY LOG

How Shipped Date

Legal Seal No.

Received by:

Legal Seal Condition:

2 VOAS - please run analysis for chlorinated hydrocarbons - type & conc.

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

Detection limit ~1.0 ug/l

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LIN
[illegible]	ug/l		2.2
1,1 Dichloroethane	ug/l		2.2
1,1,1 Trichloroethane	ug/l		1.3
1,1,2 Dichloroethylene	ug/l		1.2

ANALYST [illegible] SIGNATURE DATE 7/14/88

BPDR 0017775

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX942 ORIGINAL (Red)

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX921

Matrix: (soil/water) SOIL Lab Sample ID: 225429

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH0254088I3

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. 0 Date Analyzed: 11/03/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

SAMPLE DATA SUMMARY

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
ORIGINAL

CX943

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225386

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025386C23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column: (pack/cap) PACK Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

FORM I VOA 1/87 Rev.

BPDR 0017777

ORIGINAL

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX943

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225386

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025386A21

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/06/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-Methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-n-Octyl Phthalate	10	U
205-99-2	Benzo(b)Fluoranthene	10	U
207-08-9	Benzo(k)Fluoranthene	10	U
50-32-8	Benzo(a)Pyrene	10	U
193-39-5	Indeno(1,2,3-cd)Pyrene	10	U
53-70-3	Dibenzo(a,h)Anthracene	10	U
191-24-2	Benzo(g,h,i)Perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

BPDR 0017778

SAMPLE DATA SUMMARY

ORIGINAL (Red)

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX943

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225386

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025386A21

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/06/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methy_phenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic Acid	50	U
111-91-1	bis(2-Chloroethoxy)Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

ORIGI... (Rev.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CX943

Lab Name: COMPUCHEM LABORATORIES Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225386

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/30/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/30/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST 1/87 Rev.

BPDR 0017780

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. ORIG (Rec

CX943

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225386

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN025386C23

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ Date Analyzed: 11/01/88

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

BPDR 0017781

SAMPLE DATA SUMMARY 112

ORIGINAL
(Red)

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CX943

Lab Name: COMPUCHEM LABS Contract: 68-01-7397

Lab Code: COMPU Case No.: 10698 SAS No.: _____ SDG No.: CX929

Matrix: (soil/water) WATER Lab Sample ID: 225386

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH025386A21

Level: (low/med) LOW Date Received: 10/28/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 11/02/88

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/06/88

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I SV-TIC 1/87 Rev.

BPDR 0017782

SAMPLE DATA SUMMARY

71

ORIGINAL (Red)

00002

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY514

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY514

Matrix (soil/water): WATER Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	35.8	B		P
7440-36-0	Antimony	27.0	U	N	P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	45.9	B		P
7440-41-7	Beryllium	1.0	U	*	P
7440-43-9	Cadmium	3.0	U	*	P
7440-70-2	Calcium	128000			P
7440-47-3	Chromium	4.0	U		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	21.7	B		P
7439-89-6	Iron	151			P
7439-92-1	Lead	2.0	U	*	F
7439-95-4	Magnesium	37400			P
7439-96-5	Manganese	143			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	8.0	U		P
7440-09-7	Potassium	6150		*	P
7482-49-2	Selenium	10.0	U	N	F
7440-22-4	Silver	4.0	U		P
7440-23-5	Sodium	42300			P
7440-28-0	Thallium	20.0	U	N	F
7440-62-2	Vanadium	3.0	U		P
7440-66-6	Zinc	19.7	B		P
	Cyanide	10.0	U		AS

olor Before: COLORLESS Clarity Before: CLEAR Texture: _____

lor After: COLORLESS Clarity After: CLEAR Artifacts: _____

omments:

SELENIUM AND THALLIUM REPORTED AT A 10X DILUTION

BPDR 0017783

00003 ORIGINAL (Red)

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY515

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

ab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY514

Matrix (soil/water): WATER Lab Sample ID: _____

evel (low/med): LOW Date Received: 10/28/88

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	35.4	B		P
7440-36-0	Antimony	27.0	U	N	P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	43.8	B		P
7440-41-7	Beryllium	1.0	U	*	P
7440-43-9	Cadmium	3.0	U	*	P
7440-70-2	Calcium	129000			P
7440-47-3	Chromium	4.0	U		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	19.1	B		P
7439-89-6	Iron	122			P
7439-92-1	Lead	2.0	U	*	F
7439-95-4	Magnesium	37600			P
7439-96-5	Manganese	130			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	8.0	U		P
7440-09-7	Potassium	6040		*	P
7482-49-2	Selenium	10.0	U	WN	F
7440-22-4	Silver	4.0	U		P
7440-23-5	Sodium	42600			P
7440-28-0	Thallium	20.0	U	WN	F
7440-62-2	Vanadium	3.0	U		P
7440-66-6	Zinc	12.9	B		P
	Cyanide	10.0	U		AS

olor Before: COLORLESS Clarity Before: CLEAR Texture: _____
olor After: COLORLESS Clarity After: CLEAR Artifacts: _____

omments:
SELENIUM AND THALLIUM REPORTED AT A 10X DILUTION

FORM I - IN 7/87

00004 ORIGINAL (Red)

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY518

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY514

Matrix (soil/water): WATER Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	629000			P
7440-36-0	Antimony	135	U	N	P
7440-38-2	Arsenic	6.7	B	N	F
7440-39-3	Barium	5260			P
7440-41-7	Beryllium	34.5		*	P
7440-43-9	Cadmium	15.0	U	*	P
7440-70-2	Calcium	43000			P
7440-47-3	Chromium	926			P
7440-48-4	Cobalt	848			P
7440-50-8	Copper	1640			P
7439-89-6	Iron	1650000			P
7439-92-1	Lead	999		*	P
7439-95-4	Magnesium	114000			P
7439-96-5	Manganese	48500			P
7439-97-6	Mercury	9.8			CV
7440-02-0	Nickel	1180			P
7440-09-7	Potassium	63900		*	P
7482-49-2	Selenium	10.0	U	EN	F
7440-22-4	Silver	20.0	U		P
7440-23-5	Sodium	753000			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	1240			P
7440-66-6	Zinc	3180			P
	Cyanide	10.0	U		AS

Color Before: BROWN Clarity Before: CLOUDY Texture: _____

Color After: BROWN Clarity After: CLOUDY Artifacts: _____

Comments:

ICP VALUES REPORTED AT A 5X DUE TO HIGH FE CONCENTRATIONS

SELENIUM VALUE REPORTED AT A 10X DILUTION

INTERFERENCE SUSPECTED FOR SELENIUM

BPDR 0017785

00005 ORIGINAL (Red)

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY520

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY514

Matrix (soil/water): WATER Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	112000			P
7440-36-0	Antimony	54.0	U	N	P
7440-38-2	Arsenic	10.4		WN	F
7440-39-3	Barium	1050			P
7440-41-7	Beryllium	8.0	B	*	P
7440-43-9	Cadmium	6.0	U	*	P
7440-70-2	Calcium	99900			P
7440-47-3	Chromium	180			P
7440-48-4	Cobalt	118			P
7440-50-8	Copper	484			P
7439-89-6	Iron	241000			P
7439-92-1	Lead	150		*	P
7439-95-4	Magnesium	48400			P
7439-96-5	Manganese	9450			P
7439-97-6	Mercury	1.6			CV
7440-02-0	Nickel	220			P
7440-09-7	Potassium	14500		*	P
7482-49-2	Selenium	10.0	U	WN	F
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	1530000			P
7440-28-0	Thallium	20.0	U	WN	F
7440-62-2	Vanadium	227			P
7440-66-6	Zinc	548			P
	Cyanide	14.3			AS

Color Before: BROWN Clarity Before: CLOUDY Texture: _____
Color After: BROWN Clarity After: CLOUDY Artifacts: _____

Comments:
SELENIUM AND THALLIUM VALUES REPORTED AT A 10X DILUTION
ICP VALUES REPORTED AT A 2X DILUTION DUE TO HIGH NA CONCENTRATIONS

BPDR 0017786

00006 ORIGINAL (Red)

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY522

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY514

Matrix (soil/water): WATER Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	115000			P
7440-36-0	Antimony	27.0	U	N	P
7440-38-2	Arsenic	14.4		N	F
7440-39-3	Barium	1310			P
7440-41-7	Beryllium	12.6		*	P
7440-43-9	Cadmium	6.0		*	P
7440-70-2	Calcium	147000			P
7440-47-3	Chromium	211			P
7440-48-4	Cobalt	177			P
7440-50-8	Copper	310			P
7439-89-6	Iron	417000			P
7439-92-1	Lead	248		*	P
7439-95-4	Magnesium	60600			P
7439-96-5	Manganese	14900			P
7439-97-6	Mercury	1.0			CV
7440-02-0	Nickel	246			P
7440-09-7	Potassium	11100		*	P
7482-49-2	Selenium	10.0	U	WN	F
7440-22-4	Silver	4.0	U		P
7440-23-5	Sodium	33500			P
7440-28-0	Thallium	20.0	U	WN	F
7440-62-2	Vanadium	274			P
7440-66-6	Zinc	639			P
	Cyanide	10.0	U		AS

Color Before: BROWN Clarity Before: CLOUDY Texture: _____

Color After: BROWN Clarity After: CLOUDY Artifacts: _____

Comments:

SELENIUM AND THALLIUM VALUES REPORTED AT A 10X DILUTION

BPDR 0017787

00007 ORIGINAL (Red)

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY523

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY514

Matrix (soil/water): WATER Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	82.3	B		P
7440-36-0	Antimony	27.0	U	N	P
7440-38-2	Arsenic	18.0		N	F
7440-39-3	Barium	159	B		P
7440-41-7	Beryllium	1.0	U	*	P
7440-43-9	Cadmium	3.0	U	*	P
7440-70-2	Calcium	121000			P
7440-47-3	Chromium	4.0	U		P
7440-48-4	Cobalt	4.6	B		P
7440-50-8	Copper	13.0	B		P
7439-89-6	Iron	64300			P
7439-92-1	Lead	2.0	U	*	F
7439-95-4	Magnesium	29100			P
7439-96-5	Manganese	9290			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	8.0	U		P
7440-09-7	Potassium	2380	B	*	P
7482-49-2	Selenium	10.0	U	WN	F
7440-22-4	Silver	4.0	U		P
7440-23-5	Sodium	34400			P
7440-28-0	Thallium	14.1		SN	F
7440-62-2	Vanadium	3.0	U		P
7440-66-6	Zinc	37.0			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: YELLOW Clarity After: CLOUDY Artifacts: _____

Comments:

SELENIUM VALUE REPORTED AT A 10X DILUTION

BPDR 0017788

ORIGINAL
00008 (Red)

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY524

ab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY514

atrix (soil/water): WATER Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23400			P
7440-36-0	Antimony	27.0	U	N	P
7440-38-2	Arsenic	2.9	B	WN	F
7440-39-3	Barium	251			P
7440-41-7	Beryllium	1.9	B	*	P
7440-43-9	Cadmium	3.0	U	*	P
7440-70-2	Calcium	44200			P
7440-47-3	Chromium	38.5			P
7440-48-4	Cobalt	33.7	B		P
7440-50-8	Copper	52.4			P
7439-89-6	Iron	48700			P
7439-92-1	Lead	19.3		*	F
7439-95-4	Magnesium	31600			P
7439-96-5	Manganese	5730			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	51.8			P
7440-09-7	Potassium	5480		*	P
7482-49-2	Selenium	10.0	U	N	F
7440-22-4	Silver	4.0	U		P
7440-23-5	Sodium	27700			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	44.6	B		P
7440-66-6	Zinc	139			P
	Cyanide	10.0	U		AS

olor Before: ORANGE Clarity Before: CLOUDY Texture: _____
olor After: ORANGE Clarity After: CLOUDY Artifacts: _____

mments:
SELENIUM VALUE REPORTED AT A 10X DILUTION

FORM I - IN 7/87

00009 ORIGINAL (Red)

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY525

ab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY514

atrix (soil/water): WATER Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24.0	U		P
7440-36-0	Antimony	27.0	U	N	P
7440-38-2	Arsenic	1.0	U	WN	F
7440-39-3	Barium	20.9	B		P
7440-41-7	Beryllium	1.0	U	*	P
7440-43-9	Cadmium	3.0	U	*	P
7440-70-2	Calcium	38200			P
7440-47-3	Chromium	4.0	U		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	9.7	B		P
7439-89-6	Iron	48.1	B		P
7439-92-1	Lead	2.0	U	W*	F
7439-95-4	Magnesium	23700			P
7439-96-5	Manganese	28.7			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	8.0	U		P
7440-09-7	Potassium	1360	B	*	P
7482-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	4.0	U		P
7440-23-5	Sodium	28200			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.0	U		P
7440-66-6	Zinc	21.4			P
	Cyanide				NR

olor Before: COLORLESS Clarity Before: CLEAR Texture: _____

olor After: COLORLESS Clarity After: CLEAR Artifacts: _____

mments:

FORM I - IN 7/87

00010 ORIGINAL (Red)

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY526

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY514

Matrix (soil/water): WATER Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24.0	U		P
7440-36-0	Antimony	27.0	U	N	P
7440-38-2	Arsenic	1.0	U	WN	F
7440-39-3	Barium	35.0	B		P
7440-41-7	Beryllium	1.0	U	*	P
7440-43-9	Cadmium	3.0	U	*	P
7440-70-2	Calcium	26700			P
7440-47-3	Chromium	4.0	U		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	251			P
7439-89-6	Iron	77.0	B		P
7439-92-1	Lead	6.6		*	F
7439-95-4	Magnesium	9180			P
7439-96-5	Manganese	36.1			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	8.0	U		P
7440-09-7	Potassium	2670	B	*	P
7482-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	4.0	U		P
7440-23-5	Sodium	8880			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.0	U		P
7440-66-6	Zinc	136			P
	Cyanide	10.0	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____
Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

FORM I - IN 7/87

00011
ORIGINAL
(Red)

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY527

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY514

Matrix (soil/water): WATER Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24.0	U		P
7440-36-0	Antimony	27.0	U	N	P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	45.1	B		P
7440-41-7	Beryllium	1.0	U	*	P
7440-43-9	Cadmium	3.0	U	*	P
7440-70-2	Calcium	35700			P
7440-47-3	Chromium	4.0	U		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	18.8	B		P
7439-89-6	Iron	13200			P
7439-92-1	Lead	9.7		*	F
7439-95-4	Magnesium	12700			P
7439-96-5	Manganese	3650			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	8.0	U		P
7440-09-7	Potassium	5190		*	P
7482-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	4.0	U		P
7440-23-5	Sodium	15300			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	4.0	B		P
7440-66-6	Zinc	3340			P
	Cyanide	10.0	U		AS

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____
Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

FORM I - IN 7/87

ORIGINAL
(Red)
00012

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY528

ab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY514

atrix (soil/water): WATER Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24.0	U		P
7440-36-0	Antimony	27.0	U	N	P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	314			P
7440-41-7	Beryllium	1.0	U	*	P
7440-43-9	Cadmium	3.0	U	*	P
7440-70-2	Calcium	53200			P
7440-47-3	Chromium	4.0	U		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	19.6	B		P
7439-89-6	Iron	2070			P
7439-92-1	Lead	2.0	U	W*	F
7439-95-4	Magnesium	11900			P
7439-96-5	Manganese	785			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	8.0	U		P
7440-09-7	Potassium	1700	B	*	P
7482-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	4.0	U		P
7440-23-5	Sodium	103000			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.0	U		P
7440-66-6	Zinc	46.3			P
	Cyanide	10.0	U		AS

olor Before: COLORLESS Clarity Before: CLEAR Texture: _____
olor After: COLORLESS Clarity After: CLEAR Artifacts: _____

omments:

FORM I - IN 7/87

ORIGINAL
(Red)

00012

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY528

ab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY514

atrix (soil/water): WATER Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24.0	U		P
7440-36-0	Antimony	27.0	U	N	P
7440-38-2	Arsenic	1.0	U	N	F
7440-39-3	Barium	314			P
7440-41-7	Beryllium	1.0	U	*	P
7440-43-9	Cadmium	3.0	U	*	P
7440-70-2	Calcium	53200			P
7440-47-3	Chromium	4.0	U		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	19.6	B		P
7439-89-6	Iron	2070			P
7439-92-1	Lead	2.0	U	W*	F
7439-95-4	Magnesium	11900			P
7439-96-5	Manganese	785			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	8.0	U		P
7440-09-7	Potassium	1700	B	*	P
7482-49-2	Selenium	1.0	U	WN	F
7440-22-4	Silver	4.0	U		P
7440-23-5	Sodium	103000			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.0	U		P
7440-66-6	Zinc	46.3			P
	Cyanide	10.0	U		AS

olor Before: COLORLESS Clarity Before: CLEAR Texture: _____
olor After: COLORLESS Clarity After: CLEAR Artifacts: _____

omments:

FORM I - IN 7/87

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY507

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY506

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

% Solids: 85.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10300			P
7440-36-0	Antimony	6.3	U	N	P
7440-38-2	Arsenic	13.9		*N	F
7440-39-3	Barium	394		*N	P
7440-41-7	Beryllium	1.0	B		P
7440-43-9	Cadmium	3.1			P
7440-70-2	Calcium	22000			P
7440-47-3	Chromium	137		N	P
7440-48-4	Cobalt	16.2			P
7440-50-8	Copper	334		*	P
7439-89-6	Iron	30400			P
7439-92-1	Lead	1230		*	P
7439-95-4	Magnesium	4700			P
7439-96-5	Manganese	788			P
7439-97-6	Mercury	0.5		N	CV
7440-02-0	Nickel	94.7			P
7440-09-7	Potassium	1150	B		P
7482-49-2	Selenium	4.7	U	WN	F
7440-22-4	Silver	0.94	U		P
7440-23-5	Sodium	254	U		P
7440-28-0	Thallium	0.47	U	W	F
7440-62-2	Vanadium	26.3		N	P
7440-66-6	Zinc	454		*	P
	Cyanide	0.71		*N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:
SELENIUM VALUE REPORTED AT AN ADDITIONAL 10X DILUTION

ORIGINAL (Red) 00005

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY508

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY506

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

% Solids: 84.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	15000			P
7440-36-0	Antimony	6.4	U	N	P
7440-38-2	Arsenic	8.7		*N	F
7440-39-3	Barium	112		*N	P
7440-41-7	Beryllium	1.5			P
7440-43-9	Cadmium	0.71	U		P
7440-70-2	Calcium	2840			P
7440-47-3	Chromium	23.2		N	P
7440-48-4	Cobalt	16.3			P
7440-50-8	Copper	25.0		*	P
7439-89-6	Iron	38100			P
7439-92-1	Lead	27.0		*	P
7439-95-4	Magnesium	4400			P
7439-96-5	Manganese	772			P
7439-97-6	Mercury	0.1	U	N	CV
7440-02-0	Nickel	28.1			P
7440-09-7	Potassium	1370			P
7482-49-2	Selenium	0.47	U	WN	F
7440-22-4	Silver	0.94	U		P
7440-23-5	Sodium	255	U		P
7440-28-0	Thallium	0.47	U		F
7440-62-2	Vanadium	30.1		N	P
7440-66-6	Zinc	71.4		*	P
	Cyanide	0.59	U	*N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN 7/87

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY509

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY506

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

% Solids: 88.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11400			P
7440-36-0	Antimony	6.1	U	N	P
7440-38-2	Arsenic	13.0		*N	F
7440-39-3	Barium	234		*N	P
7440-41-7	Beryllium	1.0	B		P
7440-43-9	Cadmium	0.67	U		P
7440-70-2	Calcium	7060			P
7440-47-3	Chromium	60.4		N	P
7440-48-4	Cobalt	15.8			P
7440-50-8	Copper	76.9		*	P
7439-89-6	Iron	36700			P
7439-92-1	Lead	731		*	P
7439-95-4	Magnesium	4170			P
7439-96-5	Manganese	876			P
7439-97-6	Mercury	0.6		N	CV
7440-02-0	Nickel	77.3			P
7440-09-7	Potassium	1080	B		P
7482-49-2	Selenium	4.5	U	WN	F
7440-22-4	Silver	0.90	U		P
7440-23-5	Sodium	243	U		P
7440-28-0	Thallium	0.45	U		F
7440-62-2	Vanadium	28.3		N	P
7440-66-6	Zinc	180		*	P
	Cyanide	0.56	U	*N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

SELENIUM VALUE REPORTED AT AN ADDITIONAL 10X DILUTION

BPDR 0017797

U.S. EPA - CLP

1
ORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY509

NALYTICAL Contract: 68-01-7476

No.: 10698 SAS No.: _____ SDG No.: MCY506

Lab Sample ID: _____

Date Received: 10/28/88

ts (ug/L or mg/kg dry weight): MG/KG

alyte	Concentration	C	Q	M
um	11400			P
ti ny	6.1	U	N	P
enic	13.0		*N	F
ium	234		*N	P
ryllium	1.0	B		P
mium	0.67	U		P
cium	7060			P
romium	60.4		N	P
balt	15.8			P
per	76.9		*	P
n	36700			P
ad	731		*	P
nesium	4170			P
ganese	876			P
cury	0.6		N	CV
ckel	77.3			P
assium	1080	B		P
enium	4.5	U	WN	F
ty	0.90	U		P
di	243	U		P
llium	0.45	U		F
adium	28.3		N	P
nc	180		*	P
nide	0.56	U	*N	AS

Clarity Before: _____ Texture: COARSE
Clarity After: _____ Artifacts: _____

AT AN ADDITIONAL 10X DILUTION

FORM I - IN 7/87

EPA SAMPLE NO.

ET

MCY510

1-7476

_____ SDG No.: MCY506

b Sample ID: _____

te Received: 10/28/88

ight): MG/KG

Q	M
	P
	P
	P
N	F
N	P
	P
	P
	P
	P
	P
	P
	P
	P
	P
	P
	P
	CV
	P
	P
N	F
	P
	P
	F
	P
	P
N	AS

Texture: COARSE
Artifacts: _____

UTION

7/87

ORIGINAL (Red) 00008

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY511

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY506

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

% Solids: 86.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12600			P
7440-36-0	Antimony	6.2	U	N	P
7440-38-2	Arsenic	7.2		*N	F
7440-39-3	Barium	127		*N	P
7440-41-7	Beryllium	1.4			P
7440-43-9	Cadmium	0.69	U		P
7440-70-2	Calcium	7850			P
7440-47-3	Chromium	19.3		N	P
7440-48-4	Cobalt	16.1			P
7440-50-8	Copper	26.8		*	P
7439-89-6	Iron	32400			P
7439-92-1	Lead	44.5		*	P
7439-95-4	Magnesium	4150			P
7439-96-5	Manganese	1110			P
7439-97-6	Mercury	0.1	U	N	CV
7440-02-0	Nickel	25.3			P
7440-09-7	Potassium	1220			P
7482-49-2	Selenium	4.6	U	WN	F
7440-22-4	Silver	0.92	U		P
7440-23-5	Sodium	250	U		P
7440-28-0	Thallium	0.46	U		F
7440-62-2	Vanadium	24.8		N	P
7440-66-6	Zinc	88.2		*	P
	Cyanide	0.58	U	*N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

SELENIUM VALUE REPORTED AT AN ADDITIONAL 10X DILUTION

BPDR 0017799

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY512

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY506

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

% Solids: 94.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8370			P
7440-36-0	Antimony	5.7	U	N	P
7440-38-2	Arsenic	9.6		*N	F
7440-39-3	Barium	74.1		*N	P
7440-41-7	Beryllium	0.77	B		P
7440-43-9	Cadmium	0.63	U		P
7440-70-2	Calcium	1090			P
7440-47-3	Chromium	18.0		N	P
7440-48-4	Cobalt	10.4	B		P
7440-50-8	Copper	23.3		*	P
7439-89-6	Iron	22500			P
7439-92-1	Lead	68.7		*	P
7439-95-4	Magnesium	1870			P
7439-96-5	Manganese	844			P
7439-97-6	Mercury	0.1		N	CV
7440-02-0	Nickel	17.9			P
7440-09-7	Potassium	961	B		P
7482-49-2	Selenium	0.42	U	WN	F
7440-22-4	Silver	0.84	U		P
7440-23-5	Sodium	228	U		P
7440-28-0	Thallium	0.42	U		F
7440-62-2	Vanadium	21.0		N	P
7440-66-6	Zinc	75.8		*	P
	Cyanide	0.53	U	*N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

ORIGINAL (Red)

00010

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY513

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY506

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

% Solids: 84.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11100			P
7440-36-0	Antimony	6.4	U	N	P
7440-38-2	Arsenic	11.1		*N	F
7440-39-3	Barium	527		*N	P
7440-41-7	Beryllium	1.2	B		P
7440-43-9	Cadmium	4.0			P
7440-70-2	Calcium	15900			P
7440-47-3	Chromium	227		N	P
7440-48-4	Cobalt	17.6			P
7440-50-8	Copper	356		*	P
7439-89-6	Iron	35600			P
7439-92-1	Lead	1750		*	P
7439-95-4	Magnesium	4970			P
7439-96-5	Manganese	960			P
7439-97-6	Mercury	0.8		N	CV
7440-02-0	Nickel	111			P
7440-09-7	Potassium	1080	B		P
7482-49-2	Selenium	4.7	U	WN	F
7440-22-4	Silver	1.2	B		P
7440-23-5	Sodium	255	U		P
7440-28-0	Thallium	0.47	U	W	F
7440-62-2	Vanadium	30.2		N	P
7440-66-6	Zinc	629		*	P
	Cyanide	1.9		*N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

SELENIUM VALUE REPORTED AT AN ADDITIONAL 10X DILUTION

BPDR 0017801

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY516

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY506

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

% Solids: 71.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	17300			P
7440-36-0	Antimony	7.6	U	N	P
7440-38-2	Arsenic	9.7		*N	F
7440-39-3	Barium	122		*N	P
7440-41-7	Beryllium	2.4			P
7440-43-9	Cadmium	1.4			P
7440-70-2	Calcium	37400			P
7440-47-3	Chromium	22.4		N	P
7440-48-4	Cobalt	23.7			P
7440-50-8	Copper	29.7		*	P
7439-89-6	Iron	45700			P
7439-92-1	Lead	37.9		*	P
7439-95-4	Magnesium	4860			P
7439-96-5	Manganese	2190			P
7439-97-6	Mercury	0.1	U	N	CV
7440-02-0	Nickel	40.7			P
7440-09-7	Potassium	1600			P
7482-49-2	Selenium	0.56	U	WN	F
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	303	U		P
7440-28-0	Thallium	0.56	U		F
7440-62-2	Vanadium	26.7		N	P
7440-66-6	Zinc	126		*	P
	Cyanide	0.70	U	*N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

00012 ORIGINAL (Red)

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MCY517

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 10698 SAS No.: _____ SDG No.: MCY506

Matrix (soil/water): SOIL Lab Sample ID: _____

Level (low/med): LOW Date Received: 10/28/88

% Solids: 81.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11700			P
7440-36-0	Antimony	6.7	U	N	P
7440-38-2	Arsenic	4.3		*N	F
7440-39-3	Barium	108		*N	P
7440-41-7	Beryllium	1.7			P
7440-43-9	Cadmium	0.74	U		P
7440-70-2	Calcium	3080			P
7440-47-3	Chromium	26.8		N	P
7440-48-4	Cobalt	26.9			P
7440-50-8	Copper	25.9		*	P
7439-89-6	Iron	68400			P
7439-92-1	Lead	32.7		*	P
7439-95-4	Magnesium	3790			P
7439-96-5	Manganese	1800			P
7439-97-6	Mercury	0.1	U	N	CV
7440-02-0	Nickel	45.4			P
7440-09-7	Potassium	1050	B		P
7482-49-2	Selenium	0.49	U	WN	F
7440-22-4	Silver	0.99	U		P
7440-23-5	Sodium	266	U		P
7440-28-0	Thallium	0.49	U		F
7440-62-2	Vanadium	36.5		N	P
7440-66-6	Zinc	116		*	P
	Cyanide	0.62	U	*N	AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN 7/87

ORIGINAL
(Red)

APPENDIX C

ORIGINAL
(Red)

Exhibit A

— Copy —

ORIGINAL
(Red)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

In the Matter of:

Breslube-Penn, Inc.	:	Clean Streams Law
Moon Township, Allegheny County	:	Solid Waste Management Act
EHB Docket No. 84-428-G	:	

CONSENT ORDER AND AGREEMENT

AND NOW, this 2nd day of November, 1987, the Commonwealth of Pennsylvania, Department of Environmental Resources ("Department") has found and determined the following FINDINGS OF FACT, which Breslube-Penn, Inc. agrees are true and correct:

A. The Department is the agency with the authority to administer and enforce the Clean Streams Law, the Act of June 22, 1937, P.L. 1987, as amended ("Clean Streams Law"), 35 P.S. §691.1 et seq., the Solid Waste Management Act, the Act of July 7, 1980, P.L. 380, as amended ("SWMA"), 35 P.S. §6018.101 et seq., Section 1917-A of the Administrative Code, the Act of April 9, 1929, P.L. 177, as amended, 71 P.S. §510-17 ("Administrative Code"), and the Rules and Regulations of the Environmental Quality Board adopted thereunder.

B. Breslube-Penn, Inc. ("B-P") is a Pennsylvania corporation with offices and a waste oil treatment, storage and processing facility located in Moon Township, Allegheny County, Pennsylvania, with a business address of 84 Montour Road, Coraopolis, PA 15108 ("facility").

C. B-P is a wholly owned subsidiary of 118958 Canada Limited, a corporation organized and operating under the laws of Canada, with a business

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ORIGINAL
(Red)

address of P. O. Box 130, Breslube, Ontario, Canada NOB1MO.

D. The facility presently consists of, inter alia, waste oil receiving tanks, insulated waste oil storage tank #100, open top cement waste oil storage tanks #101-104, closed top metal waste oil storage tanks 105-109, light ends underground storage tank, dehydrator, lube oil plant (fuel stripper, vacuum tower, clay contactor, filter press), oily water plant (two batch tanks and storage tanks for chemical additives), miscellaneous horizontal and vertical storage tanks, boiler house, laboratories, office and storage building.

E. The dikes surrounding tanks 100 to 109 contain accumulations of waste oils and contaminated waters and are not constructed of impermeable material to ensure such materials do not enter groundwater.

F. Until April, 1986, B-P operated the facility to process waste oil into used oil fuels and/or lubricating oils in such a manner that waste water condensed from the dehydrator and waste waters from the emulsion breaking process discharged to Montour Run, a water of the Commonwealth, and from time to time exceeded the effluent limits of NPDES permit No. PA0044695 and paragraphs 1.a and 6 of the Department's order, disclosed in subparagraph G below, which is unlawful conduct pursuant to Section 611 of the Clean Streams Law, supra, 35 P.S. §691.611.

G. On November 28, 1984, the Department issued an order ("Order") to B-P which B-P appealed to the Environmental Hearing Board on December 26, 1984. A copy of said Order is attached hereto as Exhibit "A".

H. For a period of time from and after November 28, 1984, B-P failed to reduce total inventories of waste oil at the facility and drain the open top

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concrete storage tanks, and remove sludges in said tanks to an acceptable disposal site contrary to paragraphs 7 and 10 of the Department's order, which is unlawful conduct pursuant to Section 611 of the Clean Streams Law, supra, 35 P.S. §691.611.

I. From November 28, 1984 to the present, B-P failed to conduct ground water monitoring at the facility as required by paragraph 14 of the Department's order, which is unlawful conduct pursuant to Section 611 of the Clean Streams Law, supra, 35 P.S. §691.611.

J. After April, 1986, B-P operated the facility as a storage facility for waste oil, having "mothballed" the dehydrator, emulsion breaking process and lube oil process, thereby eliminating a continuous discharge of waste water from outfall 001 but not intermitent discharges of contaminated surface water from outfall 001.

K. The Department has never issued to B-P a permit pursuant to the SWMA, supra, 35 P.S. §6018.101 et seq. to dispose, process, store, or treat any solid wastes at the facility.

L. The presence of solid wastes at the facility without authorization from the Department constitutes violations of Sections 301 and 610 of the SWMA, supra, 35 P.S. §§6018.301 and 6018.610 and the rules and regulations promulgated thereunder.

M. The presence of solid wastes at the facility, including materials stored or disposed on the ground, as well as B-P's predecessor ("Wiseman") operations at the facility has resulted in the pollution of surface waters of the Commonwealth and a danger for further pollution to the waters of the

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ORIGINAL

Commonwealth contrary to Sections 301 and 307 of the Clean Streams Law, supra, 35 P.S. §§691.301, 691.307.

N. Section 316 of the Clean Streams Law, supra, 35 P.S. §691.316, authorizes the Department to order owners or occupiers of land to correct conditions existing on their land which cause pollution or a danger of pollution.

O. The unlawful conduct described in Paragraphs F and H through M above constitutes separate violations of Section 605 of the Clean Streams Law, 35 P.S. §691.605 and Section 605 of the SWMA, supra, 35 P.S. §6018.605 for which the Department could asses a civil penalty of up to TEN THOUSAND DOLLARS ($10,000) and TWENTY FIVE THOUSAND DOLLARS ($25,000), respectively, for each violation for each day of continuing violation.

P. B-P recognizes that the operations of the facility, any waste water discharges therefrom, and any cleanup of contaminated soil or groundwater must be in compliance with all applicable environmental statutes of the Commonwealth and rules and regulations promulgated thereunder.

Q. The Department and B-P are willing to execute this document to resolve the litigation initiated by B-P before the Environmental Hearing Board at EHB Docket No. 84-428-G and the Department's order of November 28, 1984.

NOW, THEREFORE, it is hereby ORDERED, pursuant to Section 5, 301, 307, 316, 402, 601 and 610 of the Clean Streams Law, supra, 35 P.S. §§691.5, 691.301, 691.307, 691.316, 691.402, 691.601 and 691.610, Sections 104 and 602 of the SWMA, supra, 35 P.S. §§6018.104 and 6018.602 and Section 1917-A of the Administrative Code, 71 P.S. §510-17, and in consideration of the mutual covenants herein and intending to be legally bound thereby, it is hereby agreed by

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(Red)

and between the parties to the following order of the Department.

ORDER

1. Mothballed process equipment and tankage

a. B-P shall not recommence operation of the dehydrator or lube oil plant without first obtaining a Part I (NPDES) and Part II Water Quality Management permit for any wastewater discharges directly from the facility to Montour Run or any other water of the Commonwealth associated with said processes and without obtaining a Solid Waste Management permit for the processing of waste oils regardless of whether there is a discharge of waste water to waters of the Commonwealth.

b. B-P may recommence use of the oily water plant after written notification to the Department of the intended use of the equipment and the date such use would commence; provided no waste waters from the reactivated oily water plant are discharged to Montour Run or any other water of the Commonwealth unless and until B-P obtains the following: (i) a Part I (NPDES) permit; (ii) a Part II Water Quality Management permit; and (iii) a Solid Waste Management permit for the processing of waste oils or emulsions.

c. B-P shall submit a full and complete Prevention, Preparedness and Contingency ("PPC") Plan, which includes installation of dikes and drainage from tanks therein, within one hundred twenty (120) days of the execution of this Consent Order and Agreement. If the Department requires additional information or revisions to review and approve the PPC plan, B-P shall submit the additional information or revisions by the date specified in the notice from the Department, which date shall be reasonable. Upon review and approval by the

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Department of the PPC plan and schedules therein, it shall become an obligation of this Consent Order and Agreement as if fully set forth herein.

2. Decommissioned process equipment and tankage

a. B-P shall within sixty (60) days of the date of execution of this Consent Order and Agreement, remove pumpable liquids in 101 through 109 for disposal of said waste oils at an approved facility. The term "approved facility" shall hereafter mean, for purposes of this section, a facility approved by the Department for the storage, processing, treating or disposal of solid wastes (including waste oils) within Pennsylvania or a facility located outside the jurisdiction of the Commonwealth of Pennsylvania which has authority to treat, store, or dispose of solid wastes.

(i) B-P may use insulated tank 100 for the temporary storage of waste oils removed from tanks 101 through 109 prior to disposal off-site, but all pumpable liquids from tank 100 shall be removed within one hundred twenty (120) days of execution of this Consent Order and Agreement and disposed at an approved facility.

b. B-P shall within ninety (90) days of execution of this Consent Order and Agreement, remove all sludges from tanks 105 through 109 and demolish and dispose of tanks 105 through 109 (including the light ends underground storage tank) and dispose of said tank bottom sludges at an approved facility.

c. B-P shall either submit documentation authority to dispose of solid wastes outside of Pennsylvania or it shall: (i) within ten (10) days of execution of this Consent Order and Agreement, submit the samples of the materials to be disposed of in Pennsylvania to an independent EPA certified laboratory or

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analysis of parameters required in the Module 1; and (ii) within thirty (30) days of receipt of the laboratory analysis results submit a full and complete Module 1 application for authorization to dispose of tank bottom sludges from tanks 100 through 104 and contaminated soils from the containment areas of tanks 100 through 109 to an approved facility in Pennsylvania along with any applications submitted to any other jurisdictions for an approved facility.

(i) Within one hundred twenty (120) days of approval of B-P's Module 1 application by the Department for disposal at an approved facility of tank bottom sludges from tanks 100 through 104 or of another jurisdiction's approval, whichever approval comes first, B-P shall remove all tank bottom sludges from tanks 100 through 104 and demolish and dispose of tanks 100 through 104 and dispose of the tank bottom sludges and any contaminated materials of construction of tanks 101 through 104 at an approved facility.

(A) Should B-P determine that tanks 101 through 104 must be demolished in order to remove tank bottom sludges, suitable precautions shall be taken during the course of demolition to control and contain the tank bottom sludges which remain inside the tanks within a temporary dike.

(B) The Department shall be notified of the initiation of demolition of tanks 101 through 104 prior to demolition to allow inspection of the premises by representatives of the Department. The Department may verbally order B-P by advising Ashen Yelkin or the acting plant manager to cease initiation of demolition or further demolition at any time and to take such reasonable and responsive actions as the Department may direct to contain or prevent any tank bottom sludges from entering Montour Run. In the event such a verbal

order is issued, the time period for completion of the demolition and removal of contaminated material shall be extended by the time necessary to take such reasonable and responsive actions. Any such verbal order shall be confirmed by the Department in writing within 48 hours.

d. Within one hundred thirty five (135) days of approval of the Module 1 application submitted to the Department for the disposal at an approved facility of contaminated soils from the containment area of tanks 100 through 109 or of another jurisdiction's approval, whichever approval comes first, B-P shall remove all contaminated soils from the containment area of tanks 105 through 109 to a horizontal and vertical extent such that no visible oil discoloration is present in the soil.

e. Within one hundred sixty five (165) days of approval of the Module 1 application submitted to the Department for the disposal at an approved facility of contaminated soils from the containment area of tanks 100 through 109 or of another jurisdiction's approval, whichever approval comes first, B-P shall remove all contaminated soils from the containment area of tanks 100 through 104 to a horizontal and vertical extent such that no visible oil discoloration is present in the soil.

f. B-P shall not use the decontaminated area of the containment area for any solid waste storage, processing, treating, or disposal of any solid wastes unless approved by the Department. Notwithstanding any of the above provisions of paragraph 2 all sludges and decontaminated soils shall be removed from the facility and properly disposed of on or before October 1, 1988.

g. B-P shall, within one hundred twenty (120) days of the execution of

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this Consent Order and Agreement, remove all discarded fifty-five (55) gallon drums, railroad tank cars, service station storage tanks (5 or 6 approximately 2000 gallon tanks at the far west corner of the facility adjacent to the drum lot), truck tanks, filter cake sludge under the filter press building, sample bottles of oil in the former office and supply building of Wiseman (which may be removed for sample storage in the room above the laboratory).

3. Storm water management

a. Within fifteen (15) days of execution of this Consent Order and Agreement, B-P shall clean the last oil and water separator associated with NPDES outfall 001 and dispose of the sludges at an approved facility subject to temporary storage in tank 100. Within ten days thereafter, B-P shall commence cleaning of the intermediate oil and water separator in the vicinity of tank 16 and complete cleaning of said separator within twenty (20) days. Within ten (10) days thereafter, B-P shall commence cleaning the first oil and water separator in the vicinity of the laboratory and complete cleaning said separator within twenty (20) days thereafter. Thereafter B-P shall periodically clean all three oil and water separators as necessary.

b. Within thirty (30) days of the Agreement, B-P shall retain the services of a qualified consultant to design a storm water management system for the facility designed to minimize storm water flow through the facility.

(i) The plan shall be submitted to the Department within sixty (60) days of the retention of a qualified consultant.

(ii) If the Department requires additional information or revisions to review and approve the plan, B-P shall submit the additional infor-

BPDR 0017814

mation or revisions by the date specified in the notice from the Department, which date shall be reasonable. Upon review and approval by the Department of the plan it shall become an obligation of this Consent Order and Agreement herein.

c. Within forty-five (45) days of the Department's written approval, required by 3.b above, B-P shall submit to the Department's Bureau of Water Quality Management a full and complete application for an NPDES permit for the existing runoff ditch, outfall 001 (which outfalls discharge stormwater runoff contaminated with waste oil), and any other storm water management diversions which are identified pursuant to the plan required by paragraph 3.b above.

(i) Within forty-five (45) days of the issuance of an NPDES permit for outfall 001 or any other outfall discharging storm water contaminated with waste oil, B-P shall then submit to the Department's Bureau of Water Quality Management a full and complete Part II application for a permit to achieve compliance with the effluent limits in the NPDES permit or discontinue discharges from such outfalls.

(A) The application shall include, but not be limited to, all information, specifications, drawings, maps, and representations as are required by the Clean Streams Law, the Rules and Regulations of the Environmental Quality Board, and such additional information as the Department may require. Said application shall include a schedule for construction of said treatment facilities which the Department may amend.

(B) If the Department requires additional information or revisions to review and approve the application, B-P shall submit the additional

BPDR 0017815

information or revisions by the date specified in the notice from the Department which shall be reasonable. Upon review and approval of the application, it shall become an obligation of this Consent Order and Agreement.

4. Ground water monitoring

a. Within thirty (30) days of the cleanup of contaminated soils specified in paragraph 2 above, B-P shall submit to the Department's Bureau of Water Quality Management a full and complete plan to monitor ground water under the facility to include:

(i) provisions for, at minimum, one (1) upgradient well and three (3) downgradient wells along with the proposed details of construction of the wells.

(ii) sufficient hydrogeological information to adequately explain the direction of localized ground water flow.

(iii) sufficient shallow ground water observation wells to adequately establish the elevation of the water table below the facility.

(iv) adequate quality assurance and laboratory procedures to ensure both representative sample and analytical testing capability.

b. The monitoring parameters shall be the groundwater quality parameters specified at 25 Pa. Code §75.265(n)(8)(ii) and the indicator parameters specified at 25 Pa. Code §75.265(n)(8)(iii). Sampling shall be conducted quarterly upon written approval from the Department of the groundwater monitoring plan. Data summaries shall be submitted quarterly and shall include the chemical parameters required in paragraph 4.a above plus static water elevations.

BPDR 0017816

c. Should any downgradient well monitored parameter exceed the upgradient well monitored parameter for any quarterly sampling period, B-P shall within thirty (30) days following the quarterly data submission, submit to the Department an Assessment and Abatement plan which identifies the rate and migration direction of the contaminant plume and the means chosen to control the spread of the contaminant plume under the facility.

d. If B-P is not required to submit an Assessment and Abatement Plan pursuant to paragraph 4.e above during the two (2) year period following the completion of the requirements of paragraphs 1 or 2 above, its oblibation under paragraph 4.b above, to perform quarterly groundwater monitoring, shall cease. Notwithstanding any termination of groundwater monitoring requirements, B-P shall continue to maintain the wells installed under paragraph 4.

5. Waste oil sampling and analysis

a. All loads of waste oil entering the B-P facility shall be analyzed for BS&W. In addition, all loads of waste oil exiting the facility for shipment to Breslube's Buffalo facility or to another marketer or burner shall also be analyzed for BS&W.

b. All records required by this Consent Order and Agreement shall be maintained at the facility for at least three years and consist of, at least, the following:

(i) Any required EPA and/or Department notifications of hazardous waste and/or used oil fuel activities;

(ii) Analysis of incoming and outgoing loads of waste oil for BS&W and volume (gallons) on a daily basis;

BPDR 0017817

(iii) A complete piping and tankage diagram of the active portion of the facility, upon completion of the requirements set forth in paragraphs 1 and 2 above.

c. The Department shall have the right to enter and inspect the facility's records upon prior notice during normal business hours.

6. Civil Penalties

a. Within thirty (30) days of the execution of this Consent Order and Agreement, B-P shall submit to the Department payment in the amount of TWENTY-FIVE THOUSAND DOLLARS ($25,000.00), 80% of which shall be submitted to the Department's Bureau of Water Quality Management and shall be made payable to the Commonwealth of Pennsylvania Clean Water Fund, and 20% of which shall be submitted to the Department's Bureau of Waste Management and shall be payable to the Department's Solid Waste Abatement Fund on the 1st day of the month next following the execution of this Consent Order and Agreement to the Department's Bureau of Waste Management and shall be payable to the Department's Solid Waste Abatement Fund.

b. In the event that B-P fails to comply with any requirement and/or time period of compliance deadlines set forth in this Consent Order and Agreement, B-P, upon written notification by the Department (after prior written notice by the Department giving B-P 10 days to cure any failure to comply), shall pay to the Clean Water Fund, as a civil penalty, the sum of ONE THOUSAND DOLLARS ($1,000.00) for each and every day of noncompliance with each requirement, time period and/or compliance deadline of this Consent Order and Agreement. This payment shall be in addition and not in lieu of any and all

BPDR 0017818

other remedies and penalties, including, but not limited to, civil penalties, which are available to the Department for any violation of this Consent Order and Agreement and any other violation of law. Nothing set forth in this paragraph is intended to limit, in any way, the Department's right to recover all such penalties as are authorized by law for any violation of this Order, or any violation of any permit, regulation, or statute, whether or not such violation also constitutes a violation of this Consent Order and Agreement. In connection with any deadlines set forth herein by which B-P is required to take action, it is agreed that B-P may request in writing a reasonable extension of time from the Department. If the Department fails to grant or deny the request in writing within ten (10) working days of its receipt, then such request shall be deemed granted.

7. Miscellaneous

a. Any payments received under this Consent Order and Agreement shall not be construed as a waiver by the Department of its right to take any action, administrative, civil or criminal, et al. or in equity, for noncompliance with, or any violation of this Consent Order and Agreement, and any future violations of the Solid Waste Management Act, the Clean Streams Law, and B-P's permits, and the rules and regulations adopted pursuant to said Acts or past violations not recited in this Consent Order and Agreement or alleged in the Department's Order of November 28, 1984 except as to groundwater pollution.

b. The Department specifically reserves all rights to institute equitable, administrative, civil and criminal actions, and actions to recover civil and criminal penalties and fines, for any past, present, and/or future

BPDR 0017819

violation of any permit, regulation, law or statute, and/or any pollution and/or potential pollution of the waters of the Commonwealth, including without limitation, any violation or condition caused by any discharge to or from the ground waters of the Commonwealth (including but not limited to discharges which affect domestic water supplies) which has existed or occurred, or may exist or occur, at any time except for past violations recited in this Consent Order and Agreement or alleged in the Department's Order of November 28, 1984 except as to groundwater pollution.

c. In the event of any breach by B-P of any term or provision of this Consent Order and Agreement, the Department may, at its option, in addition to the remedies prescribed herein, proceed with any action at law or in equity to bring about compliance with the applicable statutes, rules and regulations of the Department, and other applicable provisions and principles of law.

d. Unless and until the Department gives written notice to the contrary, any notices, applications, reports, or plans required to be submitted to the Department under this Consent Order and Agreement shall be addressed as follows:

(i) Correspondence submitted to the Bureau of Waste Management shall be mailed to the Department of Environmental Resources, 121 South Highland Avenue, Pittsburgh, Pennsylvania 15206-3988, Attention: Regional Solid Waste Manager.

(ii) Correspondence submitted to the Bureau of Water Quality Management shall be mailed to the Department of Environmental Resources, Bureau of Water Quality Management, Sixth Floor, Highland Building, 121 South Highland

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Avenue, Pittsburgh, PA 15206-3988, Attention: Regional Water Quality Manager.

f. All plans pursuant to this Consent Order and Agreement have been, and will be, designed by B-P or its authorized agents and not by the Department. Any approval of any plans by the Department shall not relieve B-P of its obligations and responsibilities under law. B-P, not the Department, assumes the risk that the plans will not accomplish the objectives for which they are designed.

g. Nothing contained herein shall be construed to relieve or limit B-P from the obligation to comply with the terms and conditions of any approved plan or present or future permit issued to B-P by the Department nor to relieve B-P's obligation to comply with all laws of the Commonwealth, whether or not specifically referenced in this Consent Order and Agreement.

h. This is the entire Consent Order and Agreement of the parties hereto, and no alteration, or amendment hereto shall be valid unless made in writing and signed by the parties.

i. The headings appearing in this Consent Order and Agreement are for organizational purposes only and are of no legal or binding effect.

j. Prior drafts of this Consent Order and Agreement shall not be used in subsequent litigation, if any, involving the interpretation of this document.

k. The parties agree that the findings of facts are true and correct.

l. B-P shall within fifteen (15) days of execution of this Consent Order and Agreement withdraw its appeal of the Department's November 28, 1984 Order before the Environmental Hearing Board at Docket No. 84-428-G with prejudice and upon the Board's dismissal of B-P's appeal, the Department's Order of November 28, 1984 is null and void.

BPDR 0017821

m. The parties agree to pay their respective costs and attorney fees.

n. B-P will have additional time to carry out the specific obligations imposed herein, in the event B-P is obstructed or delayed in the commencement, implementation, or completion of any such obligation, other than any obstruction or delay caused in whole or in part by B-P or by B-P's failure to submit a complete plan or application under this Consent Order and Agreement, by any act of God, or by riot, insurrection, war, fire, lightning, earthquake, flood, work slowdown or stoppage, strike or lockout, or unavailability of materials. B-P shall be entitled to the benefits of this paragraph only if it submits a written report within thirty (30) days of the occurrence of each such event to the Department, which submission shall include the events relied upon and the efforts of B-P to perform its obligations on time. The failure of B-P to comply with the requirements of this paragraph specifically and in a timely fashion shall render this paragraph null and void and of no effect as to the incident involved. Notwithstanding the provisions of this paragraph, in no event and under no circumstances shall the Department be obligated by any provision of this paragraph or of this Consent Order and Agreement to grant any extension which extends any date or schedule for compliance with any provision set forth in this Consent Order and Agreement for a period greater than one hundred eighty (180) days. Any extension beyond the one hundred eighty (180) day period may only be authorized pursuant to an amendment to this Consent Order and Agreement.

BPDR 0017822

This Consent Order and Agreement executed by the Commonwealth of Pennsylvania, Department of Environmental Resources, this _____ day of _____, 1987.

FOR THE COMMONWEALTH OF PENNSYLVANIA,
DEPARTMENT OF ENVIRONMENTAL RESOURCES

_____
Hugh V. Archer, Ph.D., P.E.
Regional Water Quality Manager
Pittsburgh Regional Office

_____
Kenneth T. Bowman
Assistant Counsel

BPDR 0017823

EP-BL-13.1
7/83

1

Unscheduled

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number [illegible]-563
Date Received 7/12/88

ESTABLISHMENT	CASE	FACILITY	COLL NUMBER
Bioscope - Penn Inc.	[illegible]	[illegible]	[illegible]

COUNTY	MUNICIPALITY	PROGRAM	COLL NAME/PHONE NUMBER	TYPE "R"	STD ANALYSIS
[illegible]	[illegible]	106	[illegible]		[illegible]

CARD (3)	ID CODE (ALL CARDS) 4-16	LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24	TIME 25-28	NO 29
1 / 2	Cnty / Mun / T / Est / Case / Fac		0	M 07 D 11 Y 88	Hr 08 Min 50	

USGS Q 30 34	BUREAU 35-37 AMIS	SAMPLE NUMBER 38-43	STREAM NAME 44-57	REL	NT 58
	405	050771			

FULL DESCRIPTION WHERE SAMPLE TAKEN:

ADDITIONAL LAB ANALYSES

CUSTODY LOG

2 VOA S - please [illegible] [illegible] - type [illegible].

How Shipped Date

Legal Seal No.

Received by

Seal Condition:

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

[illegible] detection.

[illegible]

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST [illegible] DATE

SIGNATURE

BPDR 0017824

ER dL 13.1
7/83

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number 710-56
Date Received 7/12/88

ESTABLISHMENT	CASE	FACILITY	COLL NUMBER
Elcoduco - Penn Inc.	[illegible]	[illegible] - [illegible]	[illegible]

COUNTY	MUNICIPALITY	PROGRAM	COLL NAME/PHONE NUMBER	TYPE TR	STD ANALYSIS
[illegible]	Mount [illegible]	106	[illegible] - 412-[illegible]		[illegible]

CARD (3)	ID CODE (ALL CARDS) 4-16						LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24			TIME 25-28		KIND 29
1 / 2	Cnty	Mun	T	Est	Case	Fac.		0	M	D	Y	Hr	Min	
									07	11	88	09	05	

USGS Q 30	BUREAU 35-37 AMIS	SAMPLE NUMBER 38-43	STREAM NAME 44-57	RE[illegible] POINT 58
	405	060917		

FULL DESCRIPTION WHERE SAMPLE TAKEN: Aluminum - gross on etex analysis

ADDITIONAL LAB ANALYSES

CUSTODY LOG

How Shipped Date

Legal Seal No.

Received by:

al Seal Condition:

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

GAS CHROMATOGRAPHY - F.T.D.: BENZENE - NONE DETECTED DET LIMIT 0.07 ug/l
P-XYLENE - NONE DETECTED. DET LIMIT 0.07 ug/l
M-XYLENE - NONE DETECTED. DET LIMIT 0.07 ug/l
O-XYLENE - NONE DETECTED. DET LIMIT 0.07 ug/l
ETHYL BENZENE - NONE DETECTED. DET LIMIT 0.07 ug/l

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)
Toluene	ug/l	Meds. Fed. Eq.	0.05
Chlorobenzene	ug/l		0.28
1,4-Dichlorobenzene	ug/l	Meds. Fed. Eq.	0.07

ANALYST [illegible] SIGNATURE DATE 7/16/88

BPDR 0017825

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number 07707
Date Received 3/2/84

Inc	Breslube Penn Inc	Breslube Penn Inc	2510
Moon Twp	SWM	T Shack	

0 02 25 84 11 2K

SWM 25 10 2 84

Breslube Waste Pile Sample Point #2

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Signed Date

No.

Seal Condition

PCB's
Approved by Vince White

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs in "oil" - none detected

Detection limit 10 mg/kg

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

BPDR 0017826

DATE

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number 07706
Date Received 3/2/84

[illegible] Inc	CASE Breslube Penn Inc	Breslube Penn Inc	2510
[illegible]	MOON TWP	SWM	J. Shack

0 | 02 24 84 | 11 09

SWM | 2510282

Wiseman Waste Piles Sample point 1

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Date

No.

by

Condition

PCB's
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs - none detected

Detection limit 10 mg/kg

QUANTITATIVE RESULTS

(SIS)	UNITS	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

BPDR 0017827

LAB-13.1

07657

Lab Number

Date Received 30284

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Breslube Penn Inc	CASE: Breslube Penn Inc	FACILITY: Breslube Penn Inc	COLL NUMBER: 7510
Allegheny	MUNICIPALITY: Moon Twp	PROGRAM: SWM	COLL NAME: J. Shack

LATITUDE 4-10	LONGITUDE 11-18	DATE 13-24	TIME 25-28		
	0	02 24 84	1 09		

BUREAU 35-37 AMIS	SAMPLE NUMBER 38-43	STREAM NAME 44-57		RELATIVE POINT 58
SWM	25 1 0 2 8 1			

DESCRIPTION WHERE SAMPLE TAKEN: Wiseman Oil Waste Piles Sample Area 1

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

Received by:

Legal Seal Condition:

[redacted] EP TOXIC, TOC

Approved by Vince White

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

BPDR 0017828

ANALYST _____ SIGNATURE

DATE _____

WATER AND WASTEWATER REPORT

SAMPLE NUMBER - 3407657

COLLECTOR - J. SHACK SWMS COLLECTOR NO - 8510291
ESTAB - BRESLUBE PENN INC
CASE NAME - BRESLUBE PENN INC
FACILITY - BRESLUBE PENN INC
ID CODE - NONE WQM STATION NUMBER - 000
SAMPLING DATE - 2/29/84 TIME - 11:09 LAT - 00:00:00.0 LONG - 00:00:00.0

TYPE - 00 SOURCE - 00 STD ANAL - 500 RECEIVED ON - 3/02/84
REPORT REVIEWED BY DATE - 3/11/84

STORET	DESCRIPTION	RESULT	CONC	VERIFY BY	VERIFY DATE	COMM CODE
LABORATORY ANALYSIS :						
70352	ORG HALIDES	0.1600	% X G	PTL	3/15/84	
99007	SOILS/QUAL	0.0000	G	MAB	3/10/84	***SEE QUALITATIVE REPORT

SAMPLE COMMENTS

NO SAMPLE COMMENTS

ANALYST COMMENTS

STORET CODE	COMMENTS	ANALYST
99007S	E. P. TOX. RESULTS: (PPM)	MAB
	AS = < 0.005	
	BA = 0.17	
	CD = 0.01	
	CR = < 0.07	
	PB = < 0.02	
	HG = < 0.002	
	SE = < 0.01	
	AG = < 0.02	

TOTAL NUMBER TEST FOR THIS SAMPLE 8

ORIGINAL 07658

R-LAB-13.1
81

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number

Date Received 30284

Department	Case	Facility	Coll. Number
Breslube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	2510

County	Municipality	Program	Coll. Name	Type	Std Analysis
Allegheny	Moon Twp	SWM	J. Shack		

Cards	Dwelling Accounts	Latitude	Longitude	Date	Time	Kind
			0	02 29 84	11 24	

Status	Bureau	Sample Number	Stream Name	Relative Point
	SWM	25 10 283		

Description where sample taken: Breslube Waste Pile Sample Point 2

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Hand Shipped Date

Seal No.

Received by:

Legal Seal Condition:

EP Toxic, TOX
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

BPDR 0017830

DATE

WATER AND WASTEWATER REPORT

SAMPLE NUMBER - B407659

COLLECTOR - J. SHACK SWMS COLLECTOR NO - 5510283
ESTAB - BRESLUBE PENN INC
CASE NAME - BRESLUBE PENN INC
FACILITY - BRESLUBE PENN INC
ID CODE - NONE WQN STATION NUMBER - 000
SAMPLING DATE - 2/29/84 TIME - 11:24 LAT - 00:00:00.0 LONG - 00:00:00.0

TYPE - 00 SOURCE - 00 STD ANAL - 500 RECEIVED ON - 3/02/84
REPORT REVIEWED BY DATE - 6/11/84

STORET	DESCRIPTION	RESULT	CONC	VERIFY BY	VERIFY DATE	COMM CODE
LABORATORY ANALYSIS :						
70352	ORG HALIDES	0.0670	% X	G PTL	3/16/84	
99007	SOILS QUAL	0.0000		G MAB	5/10/84	***SEE QUALITATIVE REPORT

SAMPLE COMMENTS

NO SAMPLE COMMENTS

ANALYST COMMENTS

STORET CODE	COMMENTS	ANALYST
99007S	E. P. TOX. RESULTS: (PPM) -	MAB

AS = < 0.005
BA = 0.12
CD = 0.01
CR = < 0.07
PB = 0.36
HG = < 0.002
SE = < 0.01
AG = < 0.02

TOTAL NUMBER TEST FOR THIS SAMPLE 9

AB-13.1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number 07660

Date Received 20284

SOLCS

Breslube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	2510		
Allegheny	Moon Twp	SWM	J. Shack		
		0	02 27 84	11	45
		2 5 1 0 2 8 7			

Dumpster near diversion ditch Sample Point #4

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

Received by:

Seal Condition

EP Toxic, TOX

approved by Lance White

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

QUANTITATIVE RESULTS

ANALYSIS	UNITS	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST _____ SIGNATURE _____ DATE _____

BPDR 0017832

WATER AND WASTEWATER REPORT

SAMPLE NUMBER - 8407660

COLLECTOR - J. BRACK SWMS COLLECTOR NO - 3510297

ESTAB - BRESLUBE PENN INC

CASE NAME - BRESLUBE PENN INC

FACILITY - BRESLUBE PENN INC

CD CODE - NONE WQN STATION NUMBER - 000

SAMPLING DATE - 3/29/84 TIME - 11:45 LAT - 00:00:00.0 LONG - 00:00:00.0

TYPE - 00 SOURCE - 00 STD ANAL - 500 RECEIVED ON - 3/02/84

REPORT REVIEWED BY DATE - 6/11/84

STORET	DESCRIPTION	RESULT	CONC	VERIFY BY	VERIFY DATE	COMM CODE
LABORATORY ANALYSIS :						
70352	ORG HALIDES	0.0290	% X G	PTL	3/16/84	
99007	SOILS QUAL	0.0000	G	MAB	5/10/84	***SEE QUALITATIVE REPORT

SAMPLE COMMENTS

NO SAMPLE COMMENTS

ANALYST COMMENTS

STORET CODE	COMMENTS	ANALYST
99007S	E. P. TOX. RESULTS: (PPM)	MAB
	AS = 0.0085	
	BA = 0.11	
	CD = 0.01	
	CR = < 0.07	
	PB = 0.30	
	HG = < 0.002	
	SE = < 0.01	
	AG = < 0.02	

TOTAL NUMBER TEST FOR THIS SAMPLE 9

3 1 3 1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number 07706

Date Received 3/2/84

...MENT	CASE	FACILITY	COLL NUMBER
...eslube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	2510

	MUNICIPALITY	PROGRAM	COLL NAME	TYPE TR	STD ANALYSIS
...llegheny	Moon Twp	SWM	J. Shack		

...	U CODE (ALL CARDS) 4 16	LATITUDE 4 10	LONGITUDE 11 18	DATE 3 24	TIME 25 28	X NO 29
	Cnty Mun T Est Case Fac		0	M D Y 02 29 84	Hr Min 11 09	

... 30 34	BUREAU 35 37 AMIS	SAMPLE NUMBER 38 43	STREAM NAME 44 57	RELAT...
	SWM	2510282		

...SCRIPTION WHERE SAMPLE TAKEN Wiseman Waste Piles Sample point 1

ADDITIONAL LAB AN... S

CUSTODY LOG

Shipped Date

...ial No.

...ed by:

Condition

PCB's
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs - none detected

Detection limit 10 mg/kg

QUANTITATIVE RESULTS

...YSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST J. H. Maljevac
SIGNATURE

DATE 3/23/84

BPDR 0017834

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number 07707

Date Received 3/2/84

...MENT	CASE	FACILITY	COLL NUMBER
...slube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	7510

	MUNICIPALITY	PROGRAM	COLL NAME	TYPE TR	STD ANALYSIS
...shony	Moon Twp	SWM	J. Shack		

D CODE (ALL CARDS) 4-6	LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24	TIME 25-28	KIND 29
Cnty / Mun / T / Fsi / Case / Fac		0	M 02 D 29 Y 84	Hr 11 Min 24	

...30-34	BUREAU 35-37 AMIS	SAMPLE NUMBER 38-43	STREAM NAME 44-57	RELATIVE ...
	SWM	25 10 2 8 4		

...CRIPTION WHERE SAMPLE TAKEN Breslube Waste Pile Sample Point #2

ADDITIONAL LAB ANAL...TS

CUSTODY LOG

...eped Date

...eal No.

...al Condition

PCB's
Approved by Vince White

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs in "oil" - None detected

Detection limit 10. mg/kg

QUANTITATIVE RESULTS

	UNITS	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST J. H. Maljevac
SIGNATURE

DATE 3/23/84

BPDR 0017835

Lab Number 07710

Date Received 3/2/84

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

...slube Penn Inc	CASE: Breslube Penn Inc	FACILITY: Breslube Penn Inc	COLL NUMBER: 2510
...llegheny	MUNICIPALITY: Moon Twp	PROGRAM: SWM	COLL NAME: J. Shack

	O CODE (ALL CARDS) 4-16	LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24	TIME 25-29		
			0	02 29 84	12 31		

	BUREAU 35-37 AMIS: SWM	SAMPLE NUMBER 38-43: 75 10 29 2	STREAM NAME 44-57	RELATIVE

DESCRIPTION WHERE SAMPLE TAKEN: Fuel Oil #4 Tank 105 Sample Point #8

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

by:

Seal Condition:

PCB's
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs in "oil" - None detected

Detection limit 10. mg/kg

QUANTITATIVE RESULTS

...IS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

BPDR 0017836

ANALYST J. H. Maljevac
SIGNATURE

DATE 3/23/84

13 1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Date Received 20284

...slube Penn Inc	CASE: Breslube Penn Inc	FACILITY: Breslube Penn Inc	...NUMBER: 2510
...leshan	MUNICIPALITY: Moon Twp	PROGRAM: SWM	COLL NAME: J. Shack

	CODE (ALL CARDS) 4-16	LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24	TIME 25-28	KIND 29
	Only / Mun / T / Est / Case / Fac		0	M 02 D 29 Y 84	Hr 12 Min 31	

...30-34	BUREAU 35-37 AMIS: SWM	SAMPLE NUMBER 38-43: 2510289	STREAM NAME 44-57	RELATIVE POINT

DESCRIPTION WHERE SAMPLE TAKEN: Fuel Oil #4, Tank 105 Sample Point #5

ADDITIONAL LAB ...ES

CUSTODY LOG

...ipped Date

Seal No.

...d by:

Seal Condition:

BTU value
Approved by Vince White

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

QUANTITATIVE RESULTS

...ALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST _____ SIGNATURE

DATE _____

BPDR 0017837

WATER AND WASTEWATER REPORT

SAMPLE NUMBER - 8407662

COLLECTOR - J. SHACK SWMS COLLECTOR NO - 8510287

ESTAB - BRESLUBE PENN INC

CASE NAME - BRESLUBE PENN INC

FACILITY - BRESLUBE PENN INC

ID CODE - NONE WQN STATION NUMBER - 000

SAMPLING DATE - 2/29/84 TIME - 12:31 LAT - 00:00:00.0 LONG - 00:00:00.0

TYPE - 00 SOURCE - 00 STD ANAL - 500 RECEIVED ON - 3/02/84

REPORT REVIEWED BY DATE - 3/07/84

P. T. Lyte

STORET	DESCRIPTION	RESULT	CONC	VERIFY BY	VERIFY DATE	COMM CODE
LABORATORY ANALYSIS :						
99003	BTU	18617.0000	G	PTL	3/06/84	

SAMPLE COMMENTS

NO SAMPLE COMMENTS

TOTAL NUMBER TEST FOR THIS SAMPLE 0

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401

301-224-2740
FTS-922-3752

DATE : April 4, 1984

SUBJECT: Breslube - Penn Inc. - PCBs
RCRA, 840305-01-05, 07

FROM : James Jerpe
Chemist

TO : Daniel K. Donnelly
Chief, Annapolis Lab

THRU : John Austin
Team Leader, Organic Analysis Unit

Samples were examined for the presence of PCBs.

Sample extracts were chromatographed on a SE-54 narrow-bore capillary column temperature programmed to 240°C using electron-capture detection. Known concentrations of authentic standards were chromatographed under the sample conditions whereby relative retention times were compared to the elution of standard.

Attached is a list of standards whose relative retention times were compared with sample and the lowest detection limit for each compound.

Sample Description and Results:

Lab No.	Description	PCB mg/kg
840305-01	Breslube - Penn Inc., consolidated active lagoon, Sta. 6	N.D.
-02	Breslube - Penn Inc., Tanks 106 & 107, Stas. 9 & 10	N.D
-03	Breslube - Penn Inc., Tank No. 100, Sta. 16	N.D.
-04	Breslube - Penn Inc., Tank No. 109, Sta. 19	N.D.
-05	Breslube - Penn Inc., Light ends from dehydrator, Sta. 22	N.D.*
-07	Breslube - Penn Inc., Blank	N.D.

*Sample 840305-05 contains organic solvents which grossly saturate electron-capture detector. Attempts to extract aroclors into other solvents were unsuccessful. This sample is not amenable to EC-GC and thus reported N.D.

N.D. = None Detected

JJ:ad

cc: P. J. Krantz
QAO, CRL

PESTICIDE/PCBS PRIORITY POLLUTANT COMPOUND DETECTION LIMITS

Parameter	Cas Number	Soil/Sediment mg/kg
PCB 1016	12674-11-2	0.4
PCB 1221	11104-28-2	1.0
PCB 1232	11141-16-5	1.0
PCB 1242	53469-21-9	0.5
PCB 1248	12672-29-6	0.8
PCB 1254	11097-69-1	0.8
PCB 1260	11096-82-5	1.5

BPDR 0017840

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401

301-224-2740
FTS-922-3752

DATE : May 4, 1984

SUBJECT: Breslube-Penn Inc. Samples for TOX
RCRA, 840305-02 - 05

FROM : James Barron JB
Chemist

TO : Daniel K. Donnelly
Chief, Annapolis Lab

THRU : John Austin
Team Leader, Organic Analysis Unit

RECEIVED
MAY 9 1984
ENVIRONMENTAL PROTECTION AGENCY
ESD WHEELING

Samples were received for Total Organic Halides. Due to a misunderstanding of what this test can analyse, TOX as noted in EPA's solid waste manual could not be performed. TOX is to be done on drinking water or ground water. The trace organic-halides are captured on actived charcoal, turned catalytically, determined as chlorides in a coulometric cell. The samples submitted were oil or contained sufficient organic material to plug the carbon tubes. It was agreed to check for volatile organic-halide solvents in these samples with sufficient oil to retain the solvents. Those samples are listed below.

Sample Description:

Lab No.	Description
840305-02	Breslube-Penn Inc., Tanks 106 & 107, Sta. 9 & 10
-03	Breslube-Penn Inc., Tank No. 100, Sta. 16
-04	Breslube-Penn Inc., Tank No. 109, Sta. 19
-05	Breslube-Penn Inc., Light ends from dehydrator, Sta. 20

Results:

Lab No.	1,1,1-Trichloroethane	TCE	Tetrachloroethylene
840305-02	N.D.(1)	N.D.(1)	N.D.(1)
-03	13,782 ppm	6,841 ppm	10,776 ppm
-04	261 ppm	--	173 ppm
-05	1,400 ppm	1,760 ppm	23,790 ppm

N.D. = None Detected
(1) Detection Limit = 1 ppm. 1:10 dilution of oil in Hexane.

JB:ad

cc: P. J. Krantz
QAO, CRL

U.S. Environmental Protection Agency, Region III, Central Regional Laboratory

Project Name: Bres[illegible] - Penn - RCRA

Sample Number:	840305-01 ppm	840305-02 ppm	840305-03 ppm	840305-04 ppm	840305-05 ppm
Parameter	Sta.6	Stas 9& 10	Sta. 16	Sta. 19	Sta.22
Chromium	190	160	90	<30	--
Copper	175	150	100	100	--
Iron	6900	2600	4200	650	100
Lead	350	115	680	500	--
Nickel	40	65	20	<10	--
Tin	80	30	60	--	--
Zinc	405	140	175	720	--

The EP Toxicity test is not amenable to oil samples

BPDR 0017842

NUS CORPORATION

Laboratory Services Group
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: BRESLUBE PENN
ADDRESS: 84 MONTOUR ROAD
CORAOPOLIS, PA 15108
ATTENTION: MR. AHSEN YELKIN

REPORT DATE: 10/02/87

NUS CLIENT NO: 291201
NUS SAMPLE NO: 17090200
VENDOR NO: 05741500
WORK ORDER NO: 55830
DATE RECEIVED: 09/03/87

SAMPLE IDENTIFICATION: TANKS 100 - 109 COMPOSITE — AS REC'D

TEST	DETERMINATION	RESULTS	UNITS
S080	Cyanide, Total (CN)	41	mg/kg
S090	Flash Point (Pensky-Marten)	) 140	F
S135	Oil and Grease - Soxhlet ext.	9.2	%
S150	pH (in Water)	12.4	
S165	Solids, Total as 103 C	85.5	%
S166	Solids, Tot Volatile as 550 C	23	%
S171	Sulfide, Reactive	16	ppm
S406	Arsenic by Std Add (As)	20	mg/kg
S416	Barium by Std Add (Ba)	90	mg/kg
S426	Cadmium by Std Add (Cd)	8.2	mg/kg
S436	Chromium by Std Add (Cr)	140	mg/kg
S446	Copper by Std Add (Cu)	1200	mg/kg
S456	Lead by Std Add (Pb)	1800	mg/kg
S466	Mercury by Std Add (Hg)	0.90	mg/kg
S476	Molybdenum by Std Add (Mo)	22	mg/kg
S486	Nickel by Std Add (Ni)	160	mg/kg
S496	Selenium by Std Add (Se)	(4	mg/kg
S506	Silver by Std Add (Ag)	1	mg/kg
S516	Zinc by Std Add (Zn)	850	mg/kg
S951	Acid Digestion for Std Add		

COMMENTS:

Reviewed and Approved by: JCS

PAGE NO: 4

RAYMOND SCHMET P.E.,2902 BETHEL CH.RD.,BETHEL PA.15202

BPDR 0017843

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Group
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: BRESLUBE PENN
ADDRESS: 84 MONTOUR ROAD
CORAOPOLIS, PA 15108
ATTENTION: MR. AHSEN YELKIN

REPORT DATE: 10/02/87

NUS CLIENT NO: 291201
NUS SAMPLE NO: 17090200
VENDOR NO: 05741500
WORK ORDER NO: 55830
DATE RECEIVED: 09/03/87

SAMPLE IDENTIFICATION: TANKS 100 - 109 COMPOSITE — AS REC'D

TEST	DETERMINATION	RESULTS	UNITS
0115	VOLATILES-PP IN SEDIMENT		
0V41	Acrolein	< 50	ug/kg
0V42	Acrylonitrile	< 50	ug/kg
0V43	Benzene	5.1	ug/kg
0V45	Bromoform	< 2.5	ug/kg
0V46	Carbon Tetrachloride	< 2.5	ug/kg
0V47	Chlorobenzene	< 2.5	ug/kg
0V48	Chlorodibromomethane	< 2.5	ug/kg
0V49	Chloroethane	< 5.0	ug/kg
0V50	2-Chloroethylvinyl Ether	< 5.0	ug/kg
0V51	Chloroform	< 2.5	ug/kg
0V52	Dichlorobromomethane	< 2.5	ug/kg
0V54	1,1-Dichloroethane	< 2.5	ug/kg
0V55	1,2-Dichloroethane	< 2.5	ug/kg
0V56	1,1-Dichloroethylene	< 2.5	ug/kg
0V57	1,2-Dichloropropane	< 2.5	ug/kg
0V58	1,3-Dichloropropylene	< 2.5	ug/kg
0V59	Ethylbenzene	27	ug/kg
0V60	Methyl Bromide	< 5.0	ug/kg
0V61	Methyl Chloride	< 5.0	ug/kg
0V62	Methylene Chloride	< 2.5	ug/kg
0V63	1,1,2,2-Tetrachloroethane	< 2.5	ug/kg
0V64	Tetrachloroethylene(Perchloro)	19	ug/kg
0V65	Toluene	60	ug/kg
0V66	1,2-Trans-Dichloroethylene	< 2.5	ug/kg
0V67	1,1,1-Trichloroethane	4.5	ug/kg
0V68	1,1,2-Trichloroethane	< 2.5	ug/kg
0V69	Trichloroethylene	10	ug/kg
0V70	Trichlorofluoromethane	< 2.5	ug/kg
0V71	Vinyl Chloride	< 5.0	ug/kg
0125	ACIDS - PP IN SEDIMENT		
0A21	2-Chlorophenol	< 37	ug/kg

CLIENT ORIGINAL

TOWNSHIP	WELL NO.	SEQ	CTY	PROVINCE	SECTION	TOPOSET	SYSTEM	SERIES	FORM	AQUIFER LITHOLOGY	AQUIFER ORIGIN	AQUIFER THICKNESS	LENGTH OF WELL OPEN	DEPTH TO TOP	MINOR AQU. SYSTEM	MINOR AQU. SERIES	MINOR AQU. FORM	MINOR AQU. LITHOLOGY	MINOR AQU. ORIGIN	MINOR AQU. THICKNESS	MINOR AQU. LENGTH OF WELL OPEN	MINOR AQU. DEPTH TO TOP	DEPTH TO CONSOL ROCK	SOURCE	DEPTH TO BASEMENT	BASEMENT	SOURCE	SURF MAT.	TRANS COEF	STOR COEF
XXXXXXXXXXXXXXXX	XXXX	X	XX	XX	X	X	X	X	XX	XX	X	XXX	XXXX	XXXX	X	X	XX	XX	X	XXX	XXXX	XXXX	XXXXX	X	XXXXX	X		XX X	XX X	XX X
RICHLAND	283	1	2	8	E	S	N	-	4X																					
RICHLAND	301	1	2	8	E	S	N	-	4X																					
RICHLAND	325	1	2	8	E	S	N	-	4X														7							
ROBINSON	190	1	2	8	E	S	N	-	4A	P			46	12				V				65	45	D				P		
ROBINSON	253	1	2	8	E	S	N	-	4B	O				50									45	U				4F		
ROBINSON	371	1	2	8	E	V	Q	R	-A	R					N	-	4Y						62							
ROBINSON	372	1	2	8	E	V	Q	R	-A	R								63												
ROBINSON	401	1	2	8	E	S	N	-	4X														18					P		
ROSS	348	1	2	8	E	S	N	-	4Y														78							
ROSS	349	1	2	8	E	S	N	-	4Y																					
ROSS	350	1	2	8	E	S	N	-	4Y														30							
ROSS	351	1	2	8	E	S	N	-	4X	V													20							
ROSS	352	1	2	8	E	S	N	-	4Y																					
SEWICKLEY	119	1	2	8	E	H	N	-	4B	D		166	161	116									39	D				P		
SEWICKLEY	121	1		8	E	H	N	-	4B	L			195	70										U				Z		
SEWICKLEY	123	1	2	8	E	T	N	-	4B	O		118	112	98									43	U				P		
SEWICKLEY	126	1	2	8	E	H	N	-	4B	V		175	15	130									20	D				P		
SEWICKLEY HEIGHTS	345	1	2	8	E	S	N	-	4Y														17							
SEWICKLEY HILLS	341	1	2	8	E	S	N	-	4Y														43							
SHALER	195	1	2	8	E	T	N	-	4B	V			29	170									18	D				F		
SHALER	196	1	2	8	E	C	N	-	4B	F			40	80														I		
SHALER	302	1	2	8	E	S	N	-	4X														54							
SHALER	303	1	2	8	E	S	N	-	4Y														16							
SHALER	304	1	2	8	E	S	N	-	4Y														11							
SOUTH FAYETTE	58	1	2	8	E	C	Q	R	-A	V		39	34	50									21	U				P		
SOUTH FAYETTE	192	1	2	8	E	S	N	-	4A	V			26	58									48	D				P		
SOUTH FAYETTE	193	1	2	8	E	H	N	-	4A	V			153	55				P				125	30	U				I		

ervices Group
ills Run Road
A 15205
412-788-1080

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

'ORT

NUS CLIENT NO: 291201
NUS SAMPLE NO: 17090201L
VENDOR NO: 05741500
WORK ORDER NO: 55830
DATE RECEIVED: 09/03/87

EP LEACH

UNITS

mg/l
mg/l
mg/l
mg/l
mg/l
mg/l
mg/l
mg/l
mg/l
mg/l
mg/l
mg/l
mg/l
mg/l

ml

mg/l
mg/l
mg/l

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Group
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: DRESLUBE PENN
ADDRESS: 84 MONTOUR ROAD
CORAOPOLIS, PA 15108
ATTENTION: MR. AHSEN YELKIN

REPORT DATE: 10/02/87

NUS CLIENT NO: 291201
NUS SAMPLE NO: 17090200
VENDOR NO: 05741500
WORK ORDER NO: 55830
DATE RECEIVED: 09/03/87

SAMPLE IDENTIFICATION: TANKS 100 - 109 COMPOSITE

AS REC'D

TEST	DETERMINATION	RESULTS	UNITS
0869	Dibenzo(a,h)Anthracene	< 37	ug/kg
0870	1,2-Dichlorobenzene	< 37	ug/kg
0871	1,3-Dichlorobenzene	< 37	ug/kg
0872	1,4-Dichlorobenzene	< 37	ug/kg
0873	3,3'-Dichlorobenzidine	< 74	ug/kg
0874	Diethyl Phthalate	< 37	ug/kg
0875	Dimethyl Phthalate	< 37	ug/kg
0876	Di-N-Butyl Phthalate	< 37	ug/kg
0877	2,4-Dinitrotoluene	< 37	ug/kg
0878	2,6-Dinitrotoluene	< 37	ug/kg
0879	Di-N-Octyl Phthalate	< 37	ug/kg
0880	1,2-Diphenylhydrazine(Azobz)	< 74	ug/kg
0881	Fluoranthene	< 37	ug/kg
0882	Fluorene	< 37	ug/kg
0883	Hexachlorobenzene	< 37	ug/kg
0884	Hexachlorobutadiene	< 37	ug/kg
0885	Hexachlorocyclopentadiene	< 37	ug/kg
0886	Hexachloroethane	< 37	ug/kg
0887	Indeno(1,2,3cd) Pyrene	< 37	ug/kg
0888	Isophorone	< 37	ug/kg
0889	Naphthalene	86	ug/kg
0890	Nitrobenzene	< 37	ug/kg
0891	N-Nitrosodimethylamine	< 37	ug/kg
0892	N-Nitrosodi-N-Propylamine	< 37	ug/kg
0893	N-Nitrosodiphenylamine	< 37	ug/kg
0894	Phenanthrene	51	ug/kg
0895	Pyrene	< 37	ug/kg
0896	1,2,4-Trichlorobenzene	< 37	ug/kg
S375	MODULE 1 - SOLID SAMPLE		
S040	British Thermal Units	5600	BTU/lb
S070	Corrosive (pH)	NO	
S072	Cyanide, Reactive (CN)	21	ppm

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Group
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: BRESLUBE PENN
ADDRESS: 84 MONTOUR ROAD
CORAOPOLIS, PA 15108
ATTENTION: MR. ARSEN YELKIN

REPORT DATE: 10/02/87

NUS CLIENT NO: 291201
NUS SAMPLE NO: 17090202L
VENDOR NO: 05741500
WORK ORDER NO: 55830
DATE RECEIVED: 09/03/87

SAMPLE IDENTIFICATION: TANKS 100 - 109 COMPOSITE

ASTM LEACH

TEST	DETERMINATION	RESULTS	UNITS
W378	MODULE 1- ASTM-A LEACHATE TEST		
S901	Leaching - ASTM A - D3987-85		
W116	Organic Carbon(non-purgeable)	72.6	mg/l
W120	COD (O2)	260	mg/l
W270	Cyanide, Total (CN)	0.042	mg/l
W315	Halogens, Total Organic (TOX)	490	ug/l
W490	pH	12.4	
W590	Solids, Dissolved at 180 C	1610	mg/l
W625	Solids, Total Vol at 550 C	351	mg/l
W130	Chloride (Cl)	32	mg/l

COMMENTS:

Reviewed and Approved by: JCS

CC: RAYMOND SCHMET P.E.,2902 BETHEL CH.RD.,BETHEL PA.15202

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Group
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: BRESLUBE PENN
ADDRESS: 84 MONTOUR ROAD
CORAOPOLIS, PA 15108
ATTENTION: MR. AHSEN YELKIN

REPORT DATE: 10/02/87

NUS CLIENT NO: 291201
NUS SAMPLE NO: 17090200
VENDOR NO: 05741500
WORK ORDER NO: 55830
DATE RECEIVED: 09/03/87

SAMPLE IDENTIFICATION: TANKS 100 - 109 COMPOSITE — AS REC'D

TEST	DETERMINATION	RESULTS	UNITS
0A22	2,4-Dichlorophenol	< 37	ug/kg
0A23	2,4-Dimethylphenol	< 37	ug/kg
0A24	4,6-Dinitro-o-cresol	< 180	ug/kg
0A25	2,4-Dinitrophenol	< 180	ug/kg
0A26	2-Nitrophenol	< 37	ug/kg
0A27	4-Nitrophenol	< 180	ug/kg
0A28	p-Chloro-m-cresol	< 37	ug/kg
0A29	Pentachlorophenol	< 180	ug/kg
0A30	Phenol	50	ug/kg
0A31	2,4,6-Trichlorophenol	< 37	ug/kg
0E22	LLS Extraction		
0143	TOTAL PCB'S IN SEDIMENT		
0E23	MLS Extraction		
0P81	Total PCBs - Soil	32	ug/kg 1260
0B51	Acenaphthene	< 37	ug/kg
0B52	Acenaphthylene	< 37	ug/kg
0B53	Anthracene	< 37	ug/kg
0B54	Benzidine	< 180	ug/kg
0B55	Benzo(a)Anthracene	< 37	ug/kg
0B56	Benzo(a)Pyrene	< 37	ug/kg
0B57	3,4-Benzofluoranthene	< 37	ug/kg
0B58	Benzo(ghi)Perylene	< 37	ug/kg
0B59	Benzo(k)Fluoranthene	< 37	ug/kg
0B60	Bis(2-Chloroethoxy)Methane	< 37	ug/kg
0B61	Bis(2-Chloroethyl)Ether	< 37	ug/kg
0B62	Bis(2-Chloroisopropyl)Ether	< 37	ug/kg
0B63	Bis(2-Ethylhexyl)Phthalate	40	ug/kg
0B64	4-Bromophenyl Phenyl Ether	< 37	ug/kg
0B65	Butyl Benzyl Phthalate	< 37	ug/kg
0B66	2-Chloronaphthalene	< 37	ug/kg
0B67	4-Chlorophenyl Phenyl Ether	< 37	ug/kg
0B68	Chrysene	< 37	ug/kg

BPDR 0017848

CLIENT ORIGINAL

BPDR 0017849

ERBL 151 Commonwealth of Pennsylvania · Department of Environmental Resources · Bureau of Laboratories 11/83

BACTERIOLOGICAL ANALYSES

☐ REQUEST MPN

LAB NO. 003503

DATE RECEIVED 3/16 7Am

PREVIOUS RESULT

ESTABLISHMENT	CASE	FACILITY
Breslube Penn Inc.	Moon Twp. Terminal	house well

COUNTY	MUNICIPALITY	PROGRAM	COLL. NAME	TYPE TR.
Allegheny	Moon Twp	106	P. Miller	

CARD 1 / 2	ID CODE (ALL CARDS) 4-16 (City, Mun, T, Est, Case, Fac)	LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24 (M D Y)	TIME 25-28 (HR Min)	KIND 29
			0	03 14 88	10 00	

USGS Q 30-34	BUR/AMIS 35-36	Sample No. 38-43	STREAM NAME 44-57	Rel Pt. 58	Type 59-60	Source 61-62	Reason 63-64
	W Q 15	0509594					

Composite Samples:	P/U 65	T/S 66	Alg 67-68	Cond. 80	Flow	STATION DESCRIPTION
						house well

CUSTODY LOG

HOW SHIPPED _____ DATE _____

LEGAL SEAL NO. _____

RECEIVED BY _____ 00 HV 60

CONDITION OF SEAL _____

Field Analysis

Cl. Tot. mg/l (50060)

Cl. Free mg/l (50064)

Total Coliforms (Per 100 ml)	(3150__)	
Fecal Coliforms (Per 100 ml)	(3161 5)	0 — 0
Total Fecal Strep (Per 100 ml)	(3167__)	
Total Plate Count (Per ml)	(31751)	

COMMENTS

DER-

ANALYZED BY FMB

DATE 3/21

☐ SAMPLE Exceeds Time Limits of Standard Methods for Valid Analysis

BPDR 0017850

MODE 1

SAMPLE INQUIRY ON-H880400483 FROM COLLECTOR # -0509593]

ESTABLISHMENTRESLUHE PENN INC.] DATE COLLECTED 3/14/88]

FACILITYMOON TWP TERMINAL] TIME COLLECTED10:00]

SMP PT DESCHOUSE WELL] STREAM CODE 000000]

RECEIVE INFO] RIVER MILE IND 0.0]

SAMPLE STATUS IN PROCESS] SOURCE 00] TYPE 00] ID-CODE]

AIR FLOW INITIAL 00] FINAL 00] HOURS RUN - :]

DESCRIPTION	RESULT	UNITS	ANALYST	VC	TEST CODE	METHOD
BOD 5-DAY]]	0.4000	MG/L] WET]	G]	003100]	]	
PH LAB]]	6.7000]	PTL]	G]	004030]	]	
T ALK CACO3]]	14.0000	MG/L] PTL]	G]	004100]	]	
RESIDUE TOT]]	88.0000	MG/L] DHN]	G]	005000]	]	
CA,TOTAL]]	12.7000	MG/L] WPK]	G]	009160]	A]	
CHLORIDE]]	8.0000	MG/L] BLF]	G]	009400]	A]	
SO4 TOT]]	48.0000	MG/L] KLS]	G]	009450]	A]	
CD TOT UG/L]]	10.0000	UG/L] WPK]	G]	010270]	A]	
CR TOT UG/L]]	50.0000	UG/L] WPK]	G]	010340]	A]	
CU TOT UG/L]]	49.0000	UG/L] WPK]	G]	010420]	A]	
FE TOT]]	10.0000	UG/L] WPK]	G]	010450]	A]	
PB,TOTAL]]	50.0000	UG/L] WPK]	G]	010510]	A]	
MN TOTAL]]	10.0000	UG/L] WPK]	G]	010550]	A]	

PRINT THIS SCREEN [ ] PRINTER # [ ]

[ ]

MODE 1

SAMPLE INQUIRY ON-H880400483 FROM COLLECTOR # -0509593]

ESTABLISHMENTRESLUHE PENN INC.] DATE COLLECTED 3/14/88]

FACILITYMOON TWP TERMINAL] TIME COLLECTED10:00]

SMP PT DESCHOUSE WELL] STREAM CODE 000000]

RECEIVE INFO] RIVER MILE IND 0.0]

SAMPLE STATUS IN PROCESS] SOURCE 00] TYPE 00] ID-CODE]

AIR FLOW INITIAL 00] FINAL 00] HOURS RUN - :]

DESCRIPTION	RESULT	UNITS	ANALYST	VC	TEST CODE	METHOD
NI,TOTAL]]	25.0000	UG/L] WPK]	G]	010470]	A]	
ZN,TOT UG/L]]	87.0000	UG/L] WPK]	G]	010920]	A]	
CL,TOTAL]]	135.0000	UG/L] WPK]	G]	011050]	A]	
TURB]]	4.2000	NTU] SLL]	G]	820790]	]	
]]	]]	]	]	]	]	

ter Verge

BL-13.1

1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number ORQ-2184

Date Received 3/16/88

ESTABLISHMENT	CASE	FACILITY	COLL NUMBER
Westlube Penn, Inc.	Moon Twp Terminal	house well	0509

...TY	MUNICIPALITY	PROGRAM	COLL NAME/PHONE NUMBER	TYPE TR	STD ANALYSIS
Allegheny	Moon Twp.	106	P Miller		050

CARD (2)	ID CODE (ALL CARDS) 4-18	LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24	TIME 25-28	KIND 29
1 / 2	Cnty / Mun / T / Est / Case / Fac		0	M 03 D 14 Y 88	Hr 10 Min 00	

S Q 30-34	BUREAU 35-37 AMIS	SAMPLE NUMBER 38-43	STREAM NAME 44-57	RELATIVE POINT
	W Q 5	9 5 0 9 5 9 3		

...L DESCRIPTION WHERE SAMPLE TAKEN: 1/2 gallon organic - please run

ADDITIONAL LAB AN...

CUSTODY LOG

...w Shipped Date

Seal No.

...ved by:

...Seal Condition:

Unscheduled

UV-IR Scan (particularly BTEX)

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

UV- appears to contain a small amount of a weathered #2 fuel oil.
Rough estimate ~ 0.06 ppm v/v #2 fuel oil

QUANTITATIVE RESULTS

...ALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES

ANALYST Lisa L. Weikel SIGNATURE DATE 3/16/88

BPDR 0017851

PAGE.002

APR 20 '88 8:57 FROM BUFFALO

BL-13.1
3

12

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number OLG-4402
Date Received 5/27/88

ESTABLISHMENT	CASE	FACILITY	COLL NUMBER
ESLUBE PENN INC	MOON TWP. TERMINAL	SOIL BORING (1.5' to 2.0')	0511

COUNTY	MUNICIPALITY	PROGRAM	COLL NAME/PHONE NUMBER	TYPE TR	STD ANALYSIS
LLEGHENY	MOON TWP	106	MIKE PAVILONIS 8-645-7172	—	050

CARD (3)	I.D. CODE (ALL CARDS) 4-16	LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24	TIME 25-28	KIND
1 / 2	Cnty Mun T Est Case Fac		0	M D Y: 05 25 88	Hr Min: 15 00	

USGS Q 30 34	BUREAU 35-37 AMIS	SAMPLE NUMBER 38-43	STREAM NAME 44-57	RELATIVE
	WQ5	0511 2112		—

DESCRIPTION WHERE SAMPLE TAKEN: ~~[illegible]~~ ≈ 70' FROM HILLSIDE

ADDITIONAL LAB ANAL.

CUSTODY LOG

Shipped PORTATOR C Date 5-26-88

Seal No.

Rec'd by:

Seal Condition:

VOA (SOIL SAMPLE)
HYDROCARBON TYPES } CONCENTRATION

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

GC/MS-VOA also detected ~~[illegible]~~
Naphthalene estimated to be between
1500 and 200 ug/kg

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)
Trichloroethylene	ug/kg		500.
Tetrachloroethylene			1000.
Toluene			400.
Xylene and Ethylbenzene			300.

DER - JUN 9 11 05 AM '88

ANALYST [signature] SIGNATURE DATE 5/2/88

BPDR 0017852

ER BL 131
7/83

1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number [illegible]
Date Received [illegible]

ESTABLISHMENT	CASE	FACILITY	COLL NUMBER
[illegible]	MOUNTAIN TERRACE	[illegible]	[illegible]

COUNTY	MUNICIPALITY	PROGRAM	COLL NAME/PHONE NUMBER	TYPE TR	STD ANALYSIS
[illegible]	MOUNTAIN	[illegible]	[illegible] 3-645-7172	-	[illegible]

CARD (3)	D CODE (ALL CARDS) 4-16	LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24	TIME 25-28	IND 29
1 / 2	Cnty Mun T Est Case Fac		0	M D Y [illegible]	Hr Min [illegible]	

USGS Q 30 34	BUREAU 35-37 AMIS	SAMPLE NUMBER 38-43	STREAM NAME 44-57	RE	INT 58
	W05	015112			

FULL DESCRIPTION WHERE SAMPLE TAKEN: FROM WELL UPSTREAM FROM PERMITTED LINE

ADDITIONAL LAB ANALYSES

CUSTODY LOG

How Shipped [illegible] Date 5-26-95

Legal Seal No.

Received by:

Legal Seal Condition:

[illegible]
BTX SERIES
MODIFIED TYPE I JUNKER PATTERN

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

SAMPLES

GC CHROMATOGRAPHY - P.I.B.A. BENZENE - NONE DETECTED DETECTION LIMIT 0.01 mg/L
TOLUENE - NONE DETECTED DETECTION LIMIT 0.01 mg/L
P-XYLENE - NONE DETECTED DETECTION LIMIT 0.01 mg/L
M-XYLENE - NONE DETECTED DETECTION LIMIT 0.01 mg/L
O-XYLENE - NONE DETECTED DETECTION LIMIT 0.01 mg/L
ONLY SMALL UNQUALIFIED PEAKS ARE [illegible] DETECTED.

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

[illegible]

ANALYST [illegible] SIGNATURE DATE [illegible]

BPDR 0017853

ER-BL 131
7/83

1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number [illegible]
Date Received [illegible]

ESTABLISHMENT	CASE	FACILITY	COLL NUMBER
PIPELINE PENN INC	MUNI TWP TERMINAL	MONONGAHELA RIVER [illegible]	[illegible]

COUNTY	MUNICIPALITY	PROGRAM	COLL NAME/PHONE NUMBER	TYPE TR	STD ANALYSIS
ALLEGHENY	MUNI TWP	[illegible]	[illegible]	-	[illegible]

CARD (1)	ID CODE (ALL CARDS) 4-16						LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24			TIME 25-28		KIND 29
1 / 2	Cnty	Mun	T	Est	Case	Fac		0	M	D	Y	Hr	Min	
									05	25	92	[illegible]	50	-

USGS Q 30 34	BUREAU 35-37 AMIS	SAMPLE NUMBER 38-43	STREAM NAME 44-57	REL	POINT 58
	0 0 5	0 5 1 1 2 1 5			

FULL DESCRIPTION WHERE SAMPLE TAKEN: DOWNSTREAM NEAR PLANT FOUNDATION ACROSS FROM [illegible] AREA

ADDITIONAL LAB ANALYSES

CUSTODY LOG

How Shipped [illegible] Date 5-26-92

Legal Seal No.

Received by:

Legal Seal Condition:

% [illegible]

BTX SERIES

HYDROCARBON TYPE IDENTIFICATION

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

SCHEDULED

GAS CHROMATOGRAPHY - F.I.D.: BENZENE - NONE DETECTED DET LIM ~ 0.2 ug/L

P-XYLENE - NONE DETECTED. DET LIM ~ 0.07 ug/L

M-XYLENE - NONE DETECTED DET LIM ~ 0.07 ug/L

O-XYLENE - NONE DETECTED. DET LIM ~ 0.07 ug/L

SOME SMALL UNIDENTIFIED PEAKS ARE ALSO PRESENT, POSSIBLY DUE TO METHANOL.

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)
TOLUENE	ug/L	TOLUENE	0.1

83 MO 26 PM 2:00

DEP

ANALYST [illegible] SIGNATURE

DATE [illegible]

BPDR 0017854

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number 07708

Date Received 3/2/84

Breslube Penn Inc	Case: Breslube Penn Inc	Facility: Breslube Penn Inc	Collector Number: 2510
Allegheny	Municipality: Moon Twp	Program: SWM	Collector Name: T. Shack

Code	Latitude	Longitude	Date	Time	Kind
		0	02 29 84	11 30	

Bureau	Sample Number	Stream Name	Relation
	25 10 2 8 6		

Description where sample taken: Green Dumpster Near Tanks Sample Point #3

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

by:

Seal Condition:

PCB's
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs in "oil" - none detected

Detection limit 10. mg/kg

QUANTITATIVE RESULTS

ITEMS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST J. H. Maljevac
SIGNATURE

DATE 3/23/84

BPDR 0017855

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number 07709

Date Received 3/2 84

...slube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	25
...shery	Moon Twp	SWM	J. Shack

		0	02 27 84	11 15	
	25 10 2 88				

DESCRIPTION WHERE SAMPLE TAKEN: Dumpster Near diversion ditch Sample Point # 4

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

...ed by:

Seal Condition

PCB's
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs - None detected

Detection limit 10 mg/kg

QUANTITATIVE RESULTS

...LYSIS	UNITS	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LI...

ANALYST J. H. Mulgrave SIGNATURE DATE 3/23/84

BPDR 0017856

ER-BL-13.1
7/83

1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number [illegible]
Date Received 7/12/85

ESTABLISHMENT	CASE	FACILITY	COLL NUMBER
[illegible]	[illegible]	[illegible]	[illegible]

COUNTY	MUNICIPALITY	PROGRAM	COLL NAME/PHONE NUMBER	TYPE TR	STD ANALYSIS
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]

CARD (3)	ID CODE (ALL CARDS) 4–16						LATITUDE 4–10	LONGITUDE 11–18	DATE 19–24			TIME 25–28		NO 29
1 / 2	Cnty	Mun	T	Est	Case	Fac.		0	M	D	Y	Hr	Min	
									07	11	85	09	50	

USGS Q 30 34	BUREAU 35–37 AMIS	SAMPLE NUMBER 38–43	STREAM NAME 44–57	RE.	AT 58
	005	050917			

FULL DESCRIPTION WHERE SAMPLE TAKEN: 12 gallon - phase run BTEX analysis

ADDITIONAL LAB ANALYSES

CUSTODY LOG

How Shipped Date

Legal Seal No.

Received by:

Legal Seal Condition:

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

GAS CHROMATOGRAPHY F.I.D.: BENZENE - NONE DETECTED. DET LIM ~ 0.2 ug/l
P-XYLENE - NONE DETECTED. DET LIM ~ 0.07 ug/l
M-XYLENE - NONE DETECTED. DET LIM ~ 0.07 ug/l
O-XYLENE - NONE DETECTED. DET LIM ~ 0.07 ug/l
ETHYL BENZENE - NONE DETECTED. DET LIM ~ 0.07 ug/l

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)
TOLUENE	ug/l	ACS.TOLUENE, EST.	0.01
STYRENE	ug/l	ACS.STYRENE, EST.	0.01
1,2,4-TRIMETHYL BENZENE	ug/l	ACS.C9TMB, EST.	0.01

ANALYST [illegible] SIGNATURE DATE [illegible]

BPDR 0017857

APPENDIX E

HOME WELL SURVEY HW3

Home Owner's Name: H. SNYDER STEEL CORP. Date: 10-27-88

Address: 100 MONTOUR RD.
CORAOPOLIS PA. 15108
~~Montour Rd~~ P.O Box 11

Home Phone: 8
Work Phone: 262 3775

1. Please describe the type of home well you presently utilize:
(Check those which apply)

____ Dug well

X Drilled by a rig; if so, please identify company (name, address, and phone):
MILLER DRILLING

____ Other (describe) ____

1a. Please estimate the following: Year installed 1977
Date of last service NONE

Company who serviced (name, address, and phone): ____

2. Please provide the following measurements of your well:

a. Total depth: 80 ft. Steel pipe
b. Well diameter: 7"

3. Please describe the casing material used in your well:

a. Composition

____ Iron ____ PVC ____ Galvanized ____ Terra Cotta
____ Other - Please Specify (if known)

b. Length (if known): ____

4/20/88

HOME WELL SURVEY

Home Owner's Name: _____ Date: _____

4. Please describe, if known, any screening material used in your well: unknown

   a. Length of screen: _____

   b. Depth of screen in well: _____

5. Please indicate, if known, the depth to the groundwater in your well (from the surface): unknown

6. Please indicate the composition of home plumbing (pipes) in your system:

   ____ Iron ____ PVC ____ Galvanized ____ Lead

   ____ Other (describe): ~~BRASS~~ copper

7. Please describe the water pump used in your system:

   a. Location of the pump

   ✓ Inside the well (submersible pump); Depth in well: 80 feet

   ____ Outside the well (indicate location): _____

   b. Type of pump unknown

   Branch (if known): _____

   Capacity (gallons per minute): _____

   c. Estimate hours of pump operation per day: unknown

   d. Is storage tank used: ✓ Yes ____ No

   Type (material) galvanized Capacity 120 gallon

8. a. Do you regularly or have you ever added chemicals directly to your well?

   (i.e., chlorine, clorox, etc.) ____ Yes ✓ No

   If yes, date last added: _____ Approximate amount added _____

   Compound (brand name): _____

4/20/88

HOME WELL SURVEY

Home Owner's Name: _____ Date: _____

b. Please describe any type of water treatment you are currently using (check those which apply):

_____ Filtration None

Type: _____

_____ Water Softeners

Indicate Brand: _____

_____ Other (explain)

_____

_____

_____

9. Please indicate any testing that has been done on your water:

Date of testing: None

Name of individual(s) responsible for testing: _____

10. Well Use: not drinking _____ Drinking ✓ Other: plumbing

11. Do you notice color, taste, or odor problems with well water? ✓ Yes _____ No

If yes, identify: color - iron bitter taste + odor.

Do you notice water supply problems? _____ Yes ✓ No

If yes, when: _____ how often: _____

12. Please indicate the type(s) of wastewater system used (check):

Sewer Line _____

Septic Tank ✓ Cesspool ✓ Drain Field ✓

Distance to Well ~~right next to drainfield~~ 55 feet

13. We may be taking water samples from many area homes in the near future. If your well is chosen for sampling, would you be willing to allow our NUS representatives to sample your well? Sampling involves collecting water from one of your indoor or outdoor spigots.

✓ Yes, I will allow my well to be sampled.

_____ No, I will not allow my well to be sampled.

4/20/88

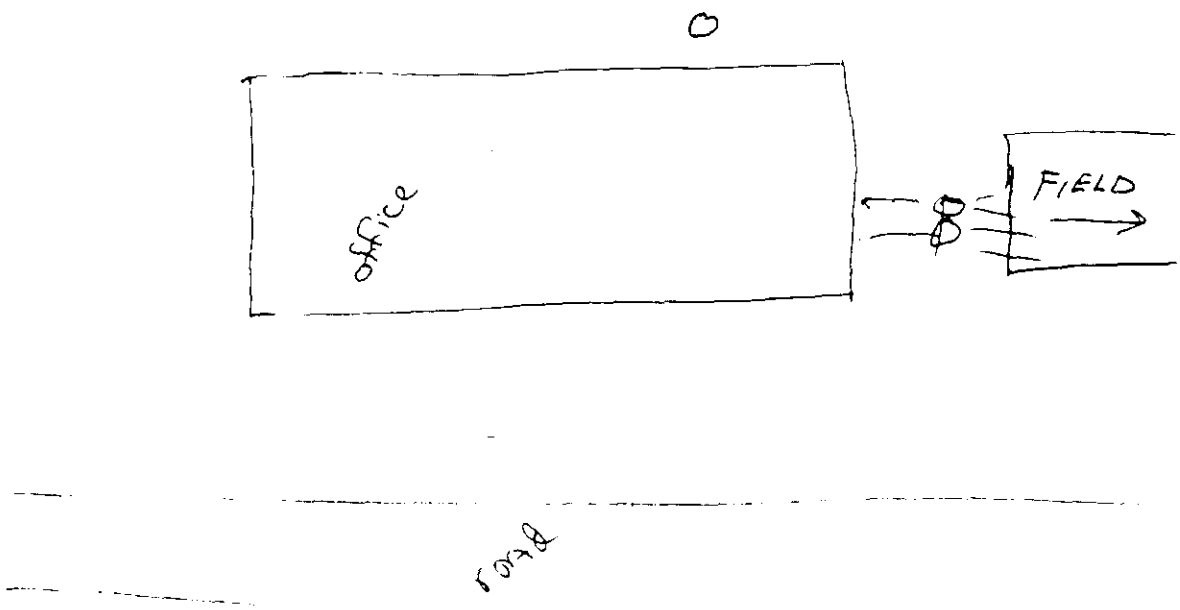
HOME WELL SURVEY

Home Owner's Name: _____ Date: _____

If yes, please indicate the time of day which would be convenient for us to sample.

_____ Morning _____ Afternoon _____ Evening

14. In the space below, please furnish a rough sketch of your property, indicating the location of your well and on-lot wastewater system, if applicable. Also indicate the location of the spigot you would prefer us to sample.



4/20/88

HOME WELL SURVEY

Home Owner's Name: HW-1 Date: _____

Address: George Sonnet
on site

Home Phone: 264-4286.
Work Phone: _____

1. Please describe the type of home well you presently utilize:
(Check those which apply)

Hand dug - ~~rock~~ rock layed streamwell

✓ Dug well

____ Drilled by a rig; if so, please identify company (name, address, and phone):

____ Other (describe) _____

1a. Please estimate the following: Year installed 60 yrs ago

Date of last service fixed foot valve in pipe, couple X 5 in cas 6 years

Company who serviced (name, address, and phone): _____

2. Please provide the following measurements of your well:

a. Total depth: 15-20 ft.

b. Well diameter: 24 inches

3. Please describe the casing material used in your well:

a. Composition

____ Iron ____ PVC ____ Galvanized ____ Terra Cotta

✓ Other - Please rock
Specify (if known)

b. Length (if known): ~~15-20 ft~~ JA 15-20ft.

4/20/88

BPDR 0017863

HOME WELL SURVEY

Home Owner's Name: _____ Date: _____

4. Please describe, if known, any screening material used in your well:

   a. Length of screen: _____

   b. Depth of screen in well: _____

5. Please indicate, if known, the depth to the groundwater in your well (from the surface):
   Stream well - 6 inches

6. Please indicate the composition of home plumbing (pipes) in your system:

   ____ Iron ____ PVC ____ Galvanized ____ Lead

   ____ Other (describe): Copper

7. Please describe the water pump used in your system:

   a. Location of the pump

   ✓ Inside the well (submersible pump); Depth in well: _____

   ✓ Outside the well (indicate location): in house - basement

   b. Type of pump

   Branch (if known): Centrifugal

   Capacity (gallons per minute): 30 gal pm

   c. Estimate hours of pump operation per day: _____

   d. Is storage tank used: ✓ Yes ____ No

   Type (material) Steel Capacity 30 gal

8. a. Do you regularly or have you ever added chemicals directly to your well?
   (i.e., chlorine, clorox, etc.) ____ Yes ✓ No

   If yes, date last added: _____ Approximate amount added _____

   Compound (brand name): _____

4/20/88

Township	Well No.	SEQ	CTY	Prov Unit	Aquifer Code	Major Lith	Major	Major	Major Depth to Top	Minor Aquifer Code	Minor Lith	Minor	Minor	Minor Depth to Top	Depth	Source	Surf Mat.	Trans Coef	Store Coef
RICHLAND	273	1	2	8 E S	N - 4X										18				
RICHLAND	274	1	2	8 E S	N - 4Y														
RICHLAND	275	1	2	8 E S	N - 4Y										18				
RICHLAND	276	1	2	8 E S	N - 4X										90				
RICHLAND	277	1	2	8 E S	N - 4X										26				
RICHLAND	278	1	2	8 E S	N - 4X										24				
RICHLAND	279	1	2	8 E S	N - 4Y										15		P		
RICHLAND	260	1	2	8 E S	N - 4Y														
RICHLAND	281	1	2	8 E S	N - 4Y										17				
RICHLAND	282	1	2	8 E S	N - 4Y														

DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120
GROUNDWATER INVENTORY SYSTEM
REPORT TYPE C

ALLEGHENY COUNTY

(WELL LOCATIONS HAVE NOT BEEN FIELD CHECKED.)

**** MAJOR AQUIFER **** **** MINOR AQUIFER ****

Township	Well No.	SEQ	CTY	Prov Unit	Aquifer Code	Major Lith	Major	Major	Major Depth to Top	Minor Aquifer Code	Minor Lith	Minor	Minor	Minor Depth to Top	Depth	Source	Surf Mat.	Trans Coef	Store Coef
XXXXXXXXXXXXXXX	XXXX	X	XX	XX X X	X X XX	XX	X XXX	XXXX	XXXX	X X XX	XX	X XXX	XXXX	XXXX	XXXXX	X	XX X	XX X	XX X
RICHLAND	285	1	2	8 E S	N - 4X														
RICHLAND	301	1	2	8 E S	N - 4X														
RICHLAND	325	1	2	8 E S	N - 4X										7				
ROBINSON	190	1	2	8 E S	N - 4A	P		46	12		V			65	45	D	P		
ROBINSON	253	1	2	8 E S	N - 4B	O			50						45	D	8F		
ROBINSON	371	1	2	8 E V	Q R -A	R				N - 4Y					62				
ROBINSON	372	1	2	8 E V	Q R -A	R					63								
ROBINSON	401	1	2	8 E S	N - 4X										18		P		
ROSS	348	1	2	8 E S	N - 4Y										78				
ROSS	349	1	2	8 E S	N - 4Y														
ROSS	350	1	2	8 E S	N - 4Y										30				
ROSS	351	1	2	8 E S	N - 4X	V									20				
ROSS	352	1	2	8 E S	N - 4Y														
SEWICKLEY	119	1	?	8 E H	N - 4B	O	166	161	116						39	D	P		
SEWICKLEY	121	1		8 E H	N - 4B	L		195	70							D	Z		
SEWICKLEY	123	1	2	8 E T	N - 4B	O	118	117	98						43	D	P		
SEWICKLEY	126	1	2	8 E H	N - 4B	V	175	15	130						20	D	P		
SEWICKLEY HEIGHTS	345	1	2	8 E S	N - 4Y										17				
SEWICKLEY HILLS	341	1	2	8 E S	N - 4Y										43				
SHALER	195	1	2	8 E T	N - 4B	V		29	170						18	D	F		
SHALER	196	1	2	8 E C	N - 4B	F		40	80								F		
SHALER	302	1	2	8 E S	N - 4X										54				
SHALER	303	1	2	8 E S	N - 4Y										16				
SHALER	304	1	2	8 E S	N - 4Y										11				
SOUTH FAYETTE	58	1	2	8 E C	Q R -A	V	39	34	50						21	D	P		
SOUTH FAYETTE	192	1	2	8 E S	N - 4A	V		26	58						48	D	P		
SOUTH FAYETTE	193	1	2	8 E H	N - 4A	V		153	55		P			125	30	D	F		

HOME WELL SURVEY

Home Owner's Name: _____ Date: _____

b. Please describe any type of water treatment you are currently using (check those which apply):

____ Filtration

Type: _____

✓ Water Softeners

Indicate Brand: ~~Culligan~~ Culligan

____ Other (explain)

_____

_____

_____

9. Please indicate any testing that has been done on your water:

Date of testing: Once a yr. since 1977

Name of individual(s) responsible for testing: Swickley Valley Hospital

10. Well Use: UH ✓ Drinking ✓ Other: all household purposes

11. Do you notice color, taste, or odor problems with well water? ____ Yes ✓ No

If yes, identify: _____

Do you notice water supply problems? ✓ Yes ____ No

If yes, when: 1985 how often: once

lasted 2, 3 days

12. Please indicate the type(s) of wastewater system used (check):

Sewer Line ____

Septic Tank ✓ Cesspool ____ Drain Field ✓

Distance to Well 50-60 ft.

13. We may be taking water samples from many area homes in the near future. If your well is chosen for sampling, would you be willing to allow our NUS representatives to sample your well? Sampling involves collecting water from one of your indoor or outdoor spigots.

✓ Yes, I will allow my well to be sampled.

____ No, I will not allow my well to be sampled.

4/20/88

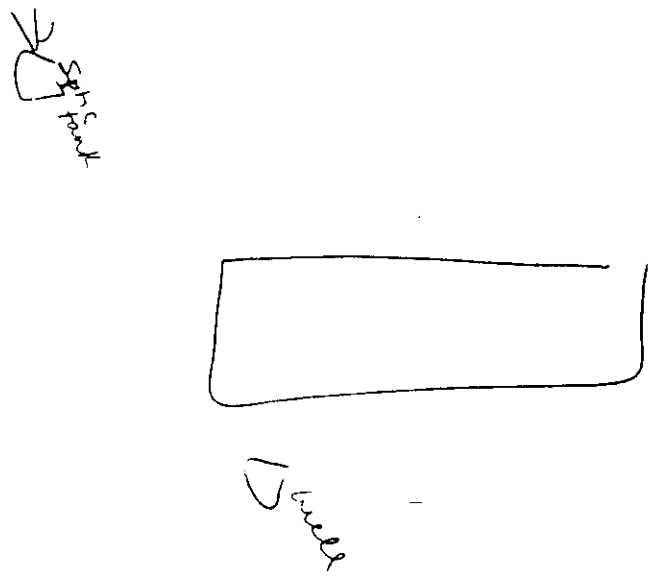
HOME WELL SURVEY

Home Owner's Name: _____ Date: _____

If yes, please indicate the time of day which would be convenient for us to sample.

_____ Morning _____ Afternoon _____ Evening

14. In the space below, please furnish a rough sketch of your property, indicating the location of your well and on-lot wastewater system, if applicable. Also indicate the location of the spigot you would prefer us to sample.



4/20/88

DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120

ALLEGHENY COUNTY GROUNDWATER INVENTORY SYSTEM

REPORT TYPE A

[WELL RECORDS HAVE NOT BEEN FIELD CHECKED.]

TOWNSHIP	WELL NO.	SEQ	CTY	** OWNER **	USGS SUB-BAS.	PA SUB-BAS.	QUAD CODE	LATITUDE DEG	LATITUDE MIN	LATITUDE SEC	LONGITUDE DEG	LONGITUDE MIN	LONGITUDE SEC	ACCURACY	AGENCY	OWNERSHIP	WATER USE	WELL USE	WELL DEPTH	FIELD CHAR	HYD LAB	QUALITY TYPE	QUANTITY FREQ	PUMPAGE	APPLICATION	LUDA
XXXXXXXXXXXXXXXX	XXXX	X	XX	XXXXXXXXXXXXXXX	XX-XX	XX-X	XXXX	XX	XX	XX	XX	XX	XX	X	X	X	X	X	X	X	X	X	X	X	X	XX
MARSHALL	330	1	2	GLAAB LEO	21-X	20-G	16B	40	38	43	80	7	21	3	S	P	H	W								
MARSHALL	331	1	2	WATSON CHAS	21-X	20-G	16A	40	38	14	80	7	36	3	S	P	H	W								
MARSHALL	332	1	2	BLUMENSCHEIN WM	21-X	20-G	16A	40	40	8	80	7	58	3	S	P	H	W								
MARSHALL	333	1	2	STABLER D	21-X	20-G	16B	40	39	30	80	7	28	3	S	P	H	W								
MARSHALL	334	1	2	STABLER P	21-X	20-G	16A	40	40	15	80	7	42	3	S	P	H	W								
MC CANDLESS	307	1	2	KRODEL W	21-N	20-G	16D	40	33	23	80	2	38	2	S	P	H	W								
MC CANDLESS	308	1	2	DODSON J	21-F	18-A	16D	40	33	30	80	1	15	2	S	P	H	W								
MC CANDLESS	309	1	2	GOLF-IN INC	21-F	18-A	16D	40	35	11	80	2	48	2	S	N	H	W								
MC CANDLESS	310	1	2	PACLAWSKI JOS	21-N	20-G	16D	40	33	21	80	2	43	3	S	P	H	W								
MC CANDLESS	311	1	2	PLAVETSKY J	21-N	20-G	16D	40	33	42	80	3	10	2	S	P	H	W								
MC CANDLESS	312	1	2	GASKILL NORA	21-N	20-G	16D	40	33	52	80	3	4	3	S	P	H	W								
MC CANDLESS	313	1	2	WAGERTER GEO	21-F	18-A	16D	40	35	17	80	3	17	2	S	P	H	W								
MC CANDLESS	314	1	2	SIRIANNA MIKE	21-F	18-A	16D	40	35	53	80	1	52	3	S	P	H	W								
MC CANDLESS	315	1	2	RODDERICK MR	21-F	18-A	16D	40	34	47	80	3	35	3	S	P	H	W								
MC CANDLESS	353	1	2	MORELAND BLDRS	21-X	20-G	16B	40	33		80	2	25	3	S	P	H	W								
MC CANDLESS	354	1	2	MORELAND BLDRS	21-X	20-G	16D	40	33		80	2	30	3	S	P	H	W								
MCCANDLESS	60	1	2	H HOCHREITER		18-A	16D	40	35	6	80		14	4	S	P	H	W	3	0						0
MCCANDLESS	88	1	2	RICHARD GOODE		18-A	16D	40	34	34	80	2	25	4	S	P	H	W	2	0						0
MCCANDLESS	89	1	2	RICHARD PHAFLER		18-A	16D	40	35	23	80	3	20	4	S	P	H	W	1	0						0
MCCANDLESS	90	1	2	CHARLES TATH		18-A	16D	40	35	20	80	3	23	4	S	P	H	W		0						0
MCCANDLESS	238	1	2	WIMER FRANKLIN	21-F	18-A	016D	40	35	39	80	1	32	4	S	P	H	W	1	0						0
MCCANDLESS	239	1	2	MEEDER HOWARD	21-F	18-A	016D	40	35	32	80		57	3	S	P	H	W	3	0						0
MONROEVILLE BORO	262	1	2	ROCCANO	21-K	19-A	037A	40	26	13	79	44	15	3	S	P	H	W	9	0						0
MOON	91	1	2	CHARLES RIGGLE		20-D	16C	40	30	22	80	11	51	4	S	P	H	W		0						0
MOON	92	1	2	ALICE M HAYES		20-D	16C	40	30	20	80	11	56	4	S	P	H	W		0						0
MOON	93	1	2	FRED OAKLEY		20-G	16C	40	30	47	80	9	27	4	S	P	H	U	0	0						0
MOON	94	2	2	FRED BARLEY		20-G	16C	40	30	46	80	9	26	4	S	P	H	W	1	0						0

MCCANDLESS	60	1	2	H HUCHREITER		18-A	16D	40	35	6	80		14	4	S	P	H	W	3	0									0
MCCANDLESS	88	1	2	RICHARD GOODE		18-A	16D	40	34	34	80	2	25	4	S	P	H	W	2	0									0
MCCANDLESS	89	1	2	RICHARD PHAFLER		18-A	16D	40	35	23	80	3	20	4	S	P	H	W	1	0									0
MCCANDLESS	90	1	2	CHARLES TATH		18-A	16D	40	35	20	80	3	23	4	S	P	H	W		0									0
MCCANDLESS	238	1	2	WIMER FRANKLIN	21-F	18-A	016D	40	35	39	80	1	32	4	S	P	H	W	1	0									0
MCCANDLESS	239	1	2	MEEDER HOWARD	21-F	18-A	016D	40	35	32	80		57	3	S	P	H	W	3	0									0
MONROEVILLE BORO	262	1	2	ROCCANO	21-K	19-A	037A	40	26	13	79	44	15	3	S	P	H	W	9	0									0
MOON	91	1	2	CHARLES RIGGLE		20-D	16C	40	30	22	80	11	51	4	S	P	H	W		0									0
MOON	92	1	2	ALICE M HAYES		20-D	16C	40	30	20	80	11	56	4	S	P	H	W		0									0
MOON	93	1	2	FRED BARLEY		20-G	16C	40	30	47	80	9	27	4	S	P	H	U	0	0									0
MOON	94	2	2	FRED BARLEY		20-G	16C	40	30	46	80	9	26	4	S	P	H	W	1	0									0

BPDR 0017869

AUGUST 6, 1984

BUR. OF TOPO. AND GEOLOGIC SURVEY
DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120
GROUNDWATER INVENTORY SYSTEM
REPORT TYPE A

PAGE: 6

ALLEGHENY COUNTY

[WELL RECORDS HAVE NOT BEEN FIELD CHECKED.]

TOWNSHIP	WELL NO.	SLQ	CIY	** OWNER **	USES SUB-BAS.	PA SUB-BAS.	QUAD CODE	LATITUDE DEG	MIN	SEC	LONGITUDE DEG	MIN	SEC	ACCURACY	AGENCY	GWNERS	GWATER USE	WELL USE	FRED	FIELD CHAR	HYDD	QW TYPE	QW FRQ	PUMP AGE	APPL RCE	LOCATION
XXXXXXXXXXXXXXXX	XXXX	X	XX	XXXXXXXXXXXXXXX	XX-XX	XX-X	XXXX	XX	XX	XX	XX	XX	XX	X	X	X	X	X	X	X	X	X	X	X	X	XX
MOON	95	1	2	F MCGARTLAND		20-G	17A	40	29	55	80	12	31	4	S	P	H	W	4	0						0
MOON	363	1	2	WAGNER	21-X	20-G	16C	40	32	11	80	13	30	3	S	P	H	W								
MOON	364	1	2	SPOTSKY JOE	21-X	20-G	16C	40	32	32	80	13	4	2	S	P	P	W								
MOON	365	1	2	MILLER JAMES	21-X	20-G	16C	40	32	43	80	13	56	3	S	P	H	W								
MOON	366	1	2	ANDERSON LOIS	21-X	20-G	17A	40	29	46	80	11	10	3	S	P	H	W								
MOON	367	1	2	RUCHANOWSKI G	21-X	20-G	17A	40	29	29	80	11	14	2	S	P	H	W								
MOON	368	1	2	FRISCH WM	21-X	20-G	16C	40	32	23	80	13	13	3	S	P	N	W								
MOON	369	1	2	KELLY	21-X	20-G	16C	40	32	36	80	13	15	3	S	P	H	W								
MOON	370	1	2	BROOHEAD TRAILR	21-X	20-G	16C	40	32	31	80	13	3	2	S	P	P	W								
N FRANKLIN	87	1	2	GILBERT MILSTEI		20-G	16D	40	36	28	80	5	56	4	S	P	H	W	1	0						0
NEVILLE	386	1	2	W VIEW WAT AUTH	21-X	20-G	16D	40	30	7	80	6	9	3	S	H	P	W								
NEVILLE	387	1	2	W VIEW MUN AUTH	21-X	20-G	17H	40	29	43	80	5	8	2	S	H	P	W								
NEVILLE	388	1	2	NEVILLE CHEM CO	21-X	20-G	16C	40	30	37	80	7	48	2	S	N	U	U								
NEVILLE	389	1	2	NEVILLE CHEM CO	21-X	20-G	16C	40	30	38	80	8	1	2	S	N	N	W								
NORTH FAYETTE	97	1	2	FLORENCE COOK		20-D	78	40	25	39	80	17	12	4	S	P	H	W	4	0			P			0
NORTH FAYETTE	98	1	2	THOMAS STURGEON		20-F	17A	40	24	58	80	13	12	4	S	P	H	W		0			P			0
NORTH FAYETTE	99	1	2	S VOLUSKIE		20-D	78	40	25	28	80	17	20	4	S	P	H	W	1	0						0
NORTH FAYETTE	100	1	2	CHARLES ZIRKLES		20-F	78	40	23	45	80	15	22	4	S	P	H	W		0						0
NORTH FAYETTE	101	1	2	EARL BURNS		20-G	17A	40	26	50	80	14	4	4	S	P	H	W	1							0
NORTH FAYETTE	102	1	2	HOWARD WATTS		20-F	17A	40	26		80	14	54	4	S	P	H	W	1	0						0
NORTH FAYETTE	103	1	2	BRUNO MAMONE		20-G	78	40	27	4	80	15	7	4	S	P	P	W		0						0
NORTH FAYETTE	104	1	2	PAUL HALANSKY		20-F	78	40	26	28	80	15	48	4	S	P	H	W	3	0						0
NORTH FAYETTE	105	1	2	DR S STEPHENS		20-G	17A	40	27	14	80	14	2	4	S	P	H	W	1	0						0
NORTH FAYETTE	106	1	2	MARTIN MURIN		20-G	78	40	27	22	80	15	1	4		P	H	W	3	0						0
NORTH FAYETTE	107	1	2	STANLEY DERUSKY		20-G	78	40	26	24	80	15	45	4	S	P	H	W	5	0						0
NORTH FAYETTE	109	1	2	JOHN DELEUZE		20-F	17A	40	24	20	80	14	15	4	S	P	H	W	1	0						0
NORTH FAYETTE	377	1	2	ANTUSZESKI	21-X	20-F	17A	40	24	33	80	11	32	3	S	P	H	W								

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DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120

ALLEGHENY COUNTY GROUNDWATER INVENTORY SYSTEM

REPORT TYPE A

(WELL RECORDS HAVE NOT BEEN FIELD CHECKED.)

TOWNSHIP	WELL NO.	SEQ	CTY	** OWNER **	USGS SUB-BAS.	PA SUB-BAS.	QUAD CODE	LATITUDE DEG	MIN	SEC	LONGITUDE DEG	MIN	SEC	ACCURACY	AGENCY	OWNERSHIP	WATER LEVEL	FIELD HEAD	HYDRO	QZ/WL	QZ/WL	PUMP	AREA	LOG DATA
XXXXXXXXXXXXXXXXX	XXXX	X	XX	XXXXXXXXXXXXXXX	XX-XX	XX-X	XXXX	XX	XX	XX	XX	XX	XX	X	X	X	X	X	X	X	X	X	X	XX
RICHLAND	283	1	2	DWYER	21-F	18-A	26A	40	38	3	79	55	56	3	S	P	H	W						
RICHLAND	301	1	2	BEATTIE WM	21-F	18-A	26C	40	37	6	79	58	37	3	S	P	H	W						
RICHLAND	325	1	2	TURKELSON OSCAR	21-F	18-A	26A	40	39	26	79	57	44	3	S	P	H	W						
ROBINSON	190	1	2	FRANKE HARRY		20-F	17B	40	26	15	80	6	5	4	S	P	H	W	1	D		P		D
ROBINSON	253	1	2	EQUITABLE GAS	21-X	20-G	Q17A	40	29	3	80	7	39	4	S	N	C	W	4	D				D
ROBINSON	371	1	2	CORAOPOLIS BORO	21-X	20-G	16C	40	30	34	80	8	15	3	S	M	P	W						
ROBINSON	372	1	2	CORAOPOLIS BORO	21-X	20-G	16C	40	30	39	80	8	27	3	S	M	P	W						
ROBINSON	401	1	2	RUHOLINA R	21-X	20-G	17A	40	29	59	80	8	6	3	S	P	H	W						
ROSS	348	1	2	GRECH W	21-X	20-G	16D	40	32	43	80	1	47	3	S	P	H	W						
ROSS	349	1	2	RAIDA & TESSMER	21-X	20-G	16D	40	31	54	80	2	49	3	S	N	C	W						
ROSS	350	1	2	BRUNNER TRUCKNG	21-X	20-G	16D	40	31	52	80	2	46	2	S	N	C	W						
ROSS	351	1	2	HAMMOND JAS	21-F	18-A	16D	40	33	1	80		8	3	S	P	H	W						
ROSS	352	1	2	SUMARUCHANA K	21-F	18-A	26C	40	32	59	79	59	53	2	S	P	H	W						
SEWICKLEY	119	1	2	HARRY FRIER		20-G	16C	40	34	58	80	11	10	4	S	P	H	W	1	D				D
SEWICKLEY	121	1	2	W KREIZLER		20-G	16L	40	35	27	80	10	4	4	S	P	H	W	3	D				D
SEWICKLEY	123	1	2	HARRY FRIER		20-G	16D	40	34	57	80	11		4	S	P	H	W		D				D
SEWICKLEY	126	1	2	CURTIS HYDE		20-G	16C	40	35	54	80	10	10	4	S	P	H	W	3	D				D
SEWICKLEY HEIGHTS	345	1	2	MAIER ROBERT	21-X	20-G	16C	40	34	30	80	8	22	3	S	P	H	W						
SEWICKLEY HILLS	341	1	2	WHARRY J	21-X	20-G	16C	40	34	38	80	8		3	S	P	S	W						
SHALER	195	1	2	WALTER ZESH		18-A	26C	40	33	6	79	56	55	4	S	P	H	W	3	D				D
SHALER	196	1	2	JOSEPH LHETA		18-A	26C	40	32	18	79	56	1	4	S	P	H	W	3	D				D
SHALER	302	1	2	DISTILO G	21-F	18-A	26C	40	31	39	79	56	22	3	S	P	H	W						
SHALER	303	1	2	BASSO M	21-F	18-A	26C	40	31	16	79	56	18	3	S	P	H	W						
SHALER	304	1	2	GLATZ MRS E	21-F	18-A	26C	40	30	17	79	58	12	2	S	P	H	W						
SOUTH FAYETTE	58	1	2	EARL LLOYD		20-F	17A	40	24	3	80	11	6	4	S	P	H	W		D		P		D
SOUTH FAYETTE	192	1	2	JOHN SHOUP		20-F	17A	40	23	8	80	10	56	4	S	P	H	W	1	D		P		D
SOUTH FAYETTE	193	1	2	WESLYEN METH CH		20-F	17C	40	21	48	80	10	4	4	S	P	H	W	1	D		P		D

	02	1	2	202	3	157	6	X	C	966			980	5	105	D	N/66	140.0	3	95	3	.00								N/66
KILBUCK	403	1	2	180	0	23	6	X	A						120		6/72	2.0				.00								
MARSHALL	83	1	2	195	3	45	6	X		966			1080	5	120	D	7/66	2.0	3			120.00								
MARSHALL	84	1	2	250	3			X	C	967			1240	5	80	D	6/67	.1	3		3	.00								6/67
MARSHALL	85	1	2	110	3	44	6	X	C	966			1140	5	40	D	8/66	13.0	3	60	3	40.00								8/66
MARSHALL	86	1	2	185	3	140	5	X	C	966			1060	5	105	D	6/66	6.0	3	175	3	90.00								6/66
MARSHALL	237	1	2	105	3	80	5	X	C	969			1080	5	70	D	7/69	15.0		35	3	.00								
MARSHALL	326	1	2	225	0	45	6	X							80		3/78	2.0	3	135		1.00								
MARSHALL	327	1	2	130	0	21	6	X							40		2/78	2.0	3			.00								
MARSHALL	328	1	2	204	0	46	6	X	A						123		/77	4.0				.00								
MARSHALL	329	1	2	305	0	46	6										/77	.0				.00								

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DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120

ALLEGHENY COUNTY GROUNDWATER INVENTORY SYSTEM

REPORT TYPE B

(WELL LOCATIONS HAVE NOT BEEN FIELD CHECKED.) ** FIELD CHEMISTRY

TOWNSHIP	WELL NO.	SEQ	CTY	WELL DEPTH	ACCURACY	DEPTH CASED	DIA IN.	FINISH	METHOD	OBJECTIVE	YEAR DRILLED	SEQUENCE	METHOD	SEQUENCE	DEPTH/SEAL	ALT. LAND/ SURF/ DATUM	DEWATERING	ACCURACY	WATER LEVEL	ACCURACY	DATE MEAS	YIELD (GPM)	METHOD	DRAWDOWN (FT)	ACCURACY	PUMP PERIOD (HRS)	ACCURACY	SULFATE	CHLORIDE	HARDNESS	SODIUM	TEMP	DATE SAMPLED
XXXXXXXXXXXXXXXXX	XXXX	X	XX	XXXXX	X	XXXXX	XXX	X	X	XXX	XXX	X	X	X	XXXXX	X	+XXXXX	X	X/XX	XXXXX.X	X	XXXX	X	XXXX.XX	X	X	X	X	X	XXX	X/XX
MARSHALL	330	1	2	144	0	31	6	X	C								60		0/75	3.0	3			.00								
MARSHALL	331	1	2	257	0	30	6	X	C								150		7/76	1.0	3			.00								
MARSHALL	332	1	2	155	0	79	6	P									81		9/78	9.0	3			.00								
MARSHALL	333	1	2	225	0	45	6	X									75		0/77	2.0	3	150		1.00								
MARSHALL	334	1	2	130	0	21	6	X									90		N/77	15.0	3			1.00								
MC CANDLESS	307	1	2	140	0	92	6												5/78	13.0	3			.00								
MC CANDLESS	308	1	2	140	0		6										100		6/77	4.0	3			.00								
MC CANDLESS	309	1	2	135	0	20	6	X									40		N/76	20.0	3	35		1.00								
MC CANDLESS	310	1	2	215	0	43	6	X	C										5/74	.0				.00								
MC CANDLESS	311	1	2	153	0	25	6	X									50		1/75	40.0				.00								
MC CANDLESS	312	1	2	56	0	35	6	X	C								1		6/75	10.0	3			.00								
MC CANDLESS	313	1	2	195	0	23	6	X	A										2/77	2.0				.00								
MC CANDLESS	314	1	2	140	0	45	6	X	C								40		4/73	.0				.00								
MC CANDLESS	315	1	2	180	0	32	6	X	C								125		6/73	20.0	3			.00								
MC CANDLESS	353	1	2	110	0	27	6	P	C								50		8/78	12.0	3			.00								
MC CANDLESS	354	1	2	106	0	25	6	P	C								60		8/78	12.0	3			.00								
MCCANDLESS	60	1	2	150	3	120	5	X	C	966			1140	5			65	D	8/66	8.0	3			.00								8/66
MCCANDLESS	88	1	2	150	3	27	6	X	C	967			1180	5			95	D	4/67	25.0	3			.00								
MCCANDLESS	89	1	2	190	3	142	5	X	C	966			1110	5			100	D	9/66	1.0	3	85	3	40.00								
MCCANDLESS	90	1	2	173	3	135	5	X	C	966			1120	5			60	D	6/66	1.0	3	10	3	8.00					56			
MCCANDLESS	238	1	2	245	3	220	5	X	C	969			1060	5			135	D	0/69	4.0		110	3	.00								
MCCANDLESS	239	1	2	65	3	42	6	X	C	969			980	5			20	D	6/69	20.0			3	.00								
MONROEVILLE BORO	262	1	2	160	3	22	6	X	A	970			970	5					8/70	3.0				.00								
MOON	91	1	2	226	3	32	7	C	C	969			1170	5			100	D	2/69	.2	3	126	3	.00								
MOON	92	1	2	162	3	34	7			969			1140	5			112	D	2/69	20.0	3		3	.00								2/69
MOON	93	1	2	177	3								770	5						.0				.00								
MOON	94	2	2	218	3	216	5	S	C	967			770	5			140	D	3/67	1.0	3		3	.00								3/67

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DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120

ALLEGHENY COUNTY

GROUNDWATER INVENTORY SYSTEM

REPORT TYPE 8

(WELL LOCATIONS HAVE NOT BEEN FIELD CHECKED.)

** FIELD CHEMISTRY

TOWNSHIP	WELL NO.	SQ	CTY	WELL DEPTH	ACCURACY	DEPTH CASED	DIA IN.	FINISH	MILL	DRILLED	PUMP	SET	MEASURING POINT	LIFT	DEPTH/SURF/	PUMP DATUM	ALT. LAND/ SURF/ DATUM	ACCURACY	WATER LEVEL	ACCURACY	DATE MEAS	YIELD (GPM)	METHOD	DRAW DOWN (FT)	ACCURACY	PUMP PERIOD (HRS)	SULFATE	CHLORIDE	HARDNESS	SPEC. CONDUCTANCE	TEMP	DATE SAMPLED
XXXXXXXXXXXXXXXXX	XXXX	X	XX	XXXXX	X	XXXXX	XXX	X	X	XXX	XXX	X	X	X	XXXXX	X	+XXXXX	X	X/XX	XXXXX.X	X	XXXX	X	XXXX.XX	X	X	X	X	X	XXX	X/XX
MOON	95	1	2	75	3	28	6			966			I		1125	5	33	D	6/66	.0				.00								
MOON	363	1	2	60	0	28	6	X	C								28		7/77	60.0	3			.00								
MOON	364	1	2	135	0	49	6	X	C								60		3/74	30.0				20.00								
MOON	365	1	2	110	0	20	6	X	C										8/75	5.0	3			.00								
MOON	366	1	2	120	0	20	6	X	C								35		0/74	2.0	3			.00								
MOON	367	1	2	110	0	40	6	X	C								60		0/74	10.0	3	5		.74								
MOON	368	1	2	95	0	27	6	X	C										0/72	30.0	3			.00								
MOON	369	1	2	110	0	80	5	X	C										8/72	1.0	3			.00								
MOON	370	1	2	135	0	49	6	X	C										3/74	30.0	3			.00								
N FRANKLIN	87	1	2	150	3	40	6	X	C	966					1245	5	60	D	9/66	5.0	3	85	3	100.00								9/66
NEVILLE	386	1	2	68	0	55	16	S	W								29		0/74	700.0		8		20.00								
NEVILLE	387	1	2	66	0	53	16		C								26		0/75	800.0		4		20.00								
NEVILLE	388	1	2	67	0	47	16	S									20		1/75	400.0	4	25		8.00								
NEVILLE	389	1	2	80	0	60	16	S									44		1/75	700.0	4	6		8.00								
NORTH FAYETTE	97	1	2	111	3	70	6	X	C	969					1200	5			1/69	6.0	3			.00								
NORTH FAYETTE	98	1	2	131	3	98	5	X	C	969					1100	5	29	D	1/96	2.0	3	102	3	40.00						52	1/96	
NORTH FAYETTE	99	1	2	179	3	140	6	X	C	968					1230	5	30	D	0/68	.5	3	149	3	110.00						52	0/68	
NORTH FAYETTE	100	1	2	76	3	41	6	X	C	968					1055	5	15	D	8/68	8.0	3			130.00								8/68
NORTH FAYETTE	101	1	2	100	3	25	7	X	C						1120	5	50	D		2.0	3	50	3	.00								
NORTH FAYETTE	102	1	2	80	3	48	7	X	C	968					1210	5	30	D	7/68	20.0	3	20	3	.00								
NORTH FAYETTE	103	1	2	100	3	25	9	X	C	968					1070	5	25	D	6/68	17.0	3			.00								
NORTH FAYETTE	104	1	2	50	3	27	7	X	C	968					1015	5	1	D	7/68	20.0	3			.00								
NORTH FAYETTE	105	1	2	113	3	80	5	X	C	966					970	5	55	D	N/66	50.0	3	55	3	.00								
NORTH FAYETTE	106	1	2	160	3	12	7	X	C	967					1095	5	100	D	6/67	.5	3			.00								
NORTH FAYETTE	107	1	2	128	3										1020	5				.0				.00								
NORTH FAYETTE	109	1	2	142	3	110	5	X	C	967					1020	5	55	D	7/67	8.0	3	85	3	40.00						51	7/67	
NORTH FAYETTE	377	1	2	191	0		6	X	C								115		9/73	7.0	3	45		.74								

[illegible]	2[illegible]	1	[illegible]	100	[illegible]	46	[illegible]	X	C								52	[illegible]	[illegible]	[illegible]				.0
RICHLAND	272	1	2	150	0	40	6	X	C									0/75	6.0	3				.00
RICHLAND	273	1	2	121	0	30	6	X	C									0/75	20.0	3				.00
RICHLAND	274	1	2	165	0		6		C									0/74	1.5	3		165		1.00
RICHLAND	275	1	2	125	0	31	6	X	C									5/74	9.0	3				.00
RICHLAND	276	1	2	247	0	27	6	X	C									0/76	.1	3				.00
RICHLAND	277	1	2	100	0	55	6	X	C								60	0/76	8.0	3				.00
RICHLAND	278	1	2	100	0	55	6	X	C								62	0/76	8.0	3				.00
RICHLAND	279	1	2	115	0	22	6	X	A									/77	10.0					.00
RICHLAND	280	1	2	93	0	42	6		C									4/70	.0					.00
RICHLAND	281	1	2	120	0	54	6	X	C									8/67	.0					.00
RICHLAND	282	1	2	150	0	52	6	X	C								60	/77	.5	3				.00

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DEPT. OF ENVIRONMENTAL RESOURCES, HARRISBURG, PA 17120

ALLEGHENY COUNTY GROUNDWATER INVENTORY SYSTEM

REPORT TYPE 8

(WELL LOCATIONS HAVE NOT BEEN FIELD CHECKED.) ** FIELD CHEMISTRY

TOWNSHIP	WELL NO.	SEQ	CTY	WELL DEPTH	ACCUR CTY	DEPTH CASED	DIA IN.	FINISH	DRILL TECH	YR DRILL	SPUT MTHD	SITE MTHD	LEVEL MTHD	LEVEL TECH	PROD MTHD	ALT. LAND/ SURF/ DATUM	ACCUR CODE	WATER LEVEL	ACCUR CODE	DATE MEAS	YIELD (GPM)	METHOD	DRAWDOWN (FT)	ACCUR CODE	PUMP PERIOD (HRS)	INRD	SUL FATE	CHLORIDE	HARDNESS	SPEC CONDUCTN	TEMP	DATE SAMPLED
XXXXXXXXXXXXXXXX	XXXX	X	XX	XXXXX	X	XXXXX	XXX	X	X	XXX	XXX	X	X	X	X	XXXXX	X	+XXXXX	X	X/XX	XXXXX.X	X	XXXX	X	XXXX.XX	X	X	X	X	X	XXX	X/XX
RICHLAND	283	1	2	1113	0	35	6	X	C											7/73	.0				.00							
RICHLAND	301	1	2	140	0		6	P										91		8/78	.1	3			.00							
RICHLAND	325	1	2	283	0	26	6	X	A									115		8/76	.5				.00							
ROBINSON	190	1	2	216	3	170	6	X	C	968						1120	5	55	D	5/68	.4	3	160	3	120.00						52	5/68
ROBINSON	253	1	2	300	3	300	10	O	C	969						1120	5		D	N/69	25.0			3	.00							
ROBINSON	371	1	2	62	0	42		S										28		5/78	400.0	4	20		8.00							
ROBINSON	372	1	2	63	0	40		S										28		4/78	500.0	4	17		8.00							
ROBINSON	401	1	2	151	0	24	6	X										120		6/78	.5				.00							
ROSS	348	1	2	140	0	44	6											76		6/77	4.0	3			.00							
ROSS	349	1	2	155	0	47	6	X	C											9/74	2.0	3			.00							
ROSS	350	1	2	75	0	36	8	X	C									19		0/75	6.0	3			.00							
ROSS	351	1	2	80	0	25	6	X	L									25		8/76	10.0	3			.00							
ROSS	352	1	2	105	0		6		C									34		0/76	9.0	3			.00							
SEWICKLEY	119	1	2	205	3	44	6	S	C	967						1140	5	104	D	3/67	1.0	3		3	.00							
SEWICKLEY	121	1	2	155	3	60	7	S	C	966						1205	5	61	D	6/66	4.0	3			.00							
SEWICKLEY	123	1	2	161	3	44	6	X	C	966						1190	5	90	D	0/66	.1	3		3	.00							0/66
SEWICKLEY	126	1	2	195	3	180	5	X	C	968						1160	5	110	D	4/68	2.0	3			.00							
SEWICKLEY HEIGHTS	345	1	2	120	0	38	5	X	C									34		9/76	11.0	3			.00							
SEWICKLEY HILLS	341	1	2	210	0	46	6											114		4/78	10.0	3	96		6.00							
SHALER	195	1	2	325	3	32	6	X	C	968						1140	5	150	D	0/68	.1	3			.00							
SHALER	196	1	2	140	3	100	6	X	C	966						1150	5	60	D	6/66	35.0	3			.00							
SHALER	302	1	2	195	0	22	6	P	A											6/77	5.0				.00							
SHALER	303	1	2	52	0	23	6	P										7		4/78	10.0	3			.00							
SHALER	304	1	2	105	0	45	6		C											4/75	10.0	3			.00							
SOUTH FAYETTE	58	1	2	60	3	26	6	X	C	967						940	5	25	D	N/67	20.0	3		3	.00						52	
SOUTH FAYETTE	192	1	2	77	3	51	6	X	C	966						1240	5	30	D	9/66	20.0	3	10	3	140.00						52	9/66
SOUTH FAYETTE	193	1	2	186	3	33	9	X	C	967						1180	5	75	3	1/67	.8		110	3	300.00							

[WELL LOCATIONS HAVE NOT BEEN FIELD CHECKED.]

ORIGINAL (Red)

TOWNSHIP	WELL NO.	SEQ	CTY	PROVINCE	SECTION	TOWNSHIP	SYSTEM	SERIES	FORM	MAJOR AQUIFER: LITHOLOGY	MAJOR AQUIFER: AQUIFER GROUP	MAJOR AQUIFER: THICKNESS	MAJOR AQUIFER: LENGTH OF OPEN	MAJOR AQUIFER: WELL DEPTH	MAJOR AQUIFER: DEPTH TO TOP OF	MINOR AQUIFER: SYSTEM	MINOR AQUIFER: SERIES	MINOR AQUIFER: FORM	MINOR AQUIFER: LITHOLOGY	MINOR AQUIFER: AQUIFER GROUP	MINOR AQUIFER: THICKNESS	MINOR AQUIFER: LENGTH OF OPEN	MINOR AQUIFER: WELL DEPTH	MINOR AQUIFER: DEPTH TO TOP OF	DEPTH TO WATER	CONSTOCK	SOURCE	DEPTH	HASEMENT	SOURCE	SURF HAT.	TRANS COEF SIG	TRANS COEF FROM	STORE COEF SIG	STORE COEF FROM
XXXXXXXXXXXXXXXX	XXXX	X	XX	XX	X	X	X	X	XX	XX	X	XXX	XXXX	XXXX	XXXX	X	X	XX	XX	X	XXX	XXXX	XXXX	XXXXX	X	XXXXX	X	XX	X	XX	X	XX	X
MARSHALL	330	1	2	8	E	S	N	-	4X																										
MARSHALL	331	1	2	8	E	S	N	-	4X	F																									
MARSHALL	332	1	2	8	E	S	N	-	4X																20										
MARSHALL	333	1	2	8	E	S	N	-	4X	V															25										
MC CANDLESS	334	1	2	8	E	S	N	-	4Y																69										
MC CANDLESS	307	1	2	8	E	S	N	-	4X																40										
MC CANDLESS	308	1	2	8	E	S	N	-	4X																										
MC CANDLESS	309	1	2	8	E	S	N	-	4Y																										
MC CANDLESS	310	1	2	8	E	S	N	-	4X																										
MC CANDLESS	311	1	2	8	E	S	N	-	4Y																10										
MC CANDLESS	312	1	2	8	E	S	4	Y	F																										
MC CANDLESS	313	1	2	8	E	S	N	-	4X	V																									
MC CANDLESS	314	1	2	8	E	S	N	-	4X																22					S					
MC CANDLESS	315	1	2	8	E	S	N	-	4X																15										
MC CANDLESS	353	1	2	8	E	S	N	-	4X	V															45										
MCCANDLESS	354	1	2	8	E	S	N	-	4X	V															28										
MCCANDLESS	60	1	2	8	E	S	N	-	4B	P															3										
MCCANDLESS	88	1	2	8	E	S	N	-	4B	V	130		30	85				0				110			3										
MCCANDLESS	89	1	2	8	E	S	N	-	4B	F	165		123	138												D				F					
MCCANDLESS	90	1	2	8	E	S	N	-	4H	V	143		48	80				P							20	D				P					
MCCANDLESS	238	1	2	8	E	S	N	-	4B	O			38	80				P				150			25	D				S					
MCCANDLESS	239	1	2	8	E	S	N	-	4B				25	170				V				115			30	D				F					
MONROEVILLE BORO	262	1	2	8	E	V	N	-	4B	F			23									200			11	D				HI					
MOON	91	1	2	8	E	H	N	-	4B	F	216		138	120																P					
MOON	92	1	2	8	E	H	N	-	4B	V	39		194	152											21	D				U					
MOON	93	1	2	8	E	S	N	-	4H				34	50											10	D				F					
	94	2	2	8	E	S	N	-	4B	D	178		2	150											21	D				P					
																									40	D				Z					
NEVILLE	387	1	2	8	E	V	-	-	-																										
NEVILLE	388	1	2	8	E	V	Q	R	-A	R								67																	
NEVILLE	389	1	2	8	E	V	Q	R	-A	R															60										
NORTH FAYETTE	97	1	2	8	E	C	N	-	4A	P			41	23				V				70			38	D				P					
NORTH FAYETTE	98	1	2	8	E	C	Q	R	-A	V	99		33	50											50	D				P					
NORTH FAYETTE	99	1	2	8	E	S	N	-	4A	V			39	70											40	D				P					
NORTH FAYETTE	100	1	2	8	E	C	N	-	4A	G	43		35	6				P				15			33	D				P					
NORTH FAYETTE	101	1	2	8	E	S	N	-	4B	S	80		75	75											20	D				F					
NORTH FAYETTE	102	1	2	8	E	S	N	-	4A	V			32					F				25				D				F					
NORTH FAYETTE	103	1	2	8	E	C	Q	R	-A	S	80		75	32				F				70			20	D				F					
NORTH FAYETTE	104	1	2	8	E	C	Q	R	-A	F	25		23	30											25	D				P					
NORTH FAYETTE	105	1	2	8	E	C	Q	R	-A	V	88		33	65											25	D				P					
NORTH FAYETTE	106	1	2	8	E	S	N	-	4B	F	135		148	100				V				150			25	D				Z					
NORTH FAYETTE	107	1	2	8	E	C	N	-	4B																										
NORTH FAYETTE	109	1	2	8	E	C	N	-	4H	S	107		104	55											35	D				P					
NORTH FAYETTE	377	1	2	8	E	S	N	-	4X	V																									

BPDR 0017874

EPA REGION III
SUPERFUND DOCUMENT MANAGEMENT SYSTEM

DOC ID # 307643
PAGE # _____

IMAGERY COVER SHEET
UNSCANNABLE ITEM

Contact the CERCLA Records Center to view this document.

SITE NAME Breslube

OPERABLE UNIT _____

SECTION/BOX/FOLDER BX 6 - 17041-17626

REPORT OR DOCUMENT TITLE Expanded Site Inspection Part II of II - 17628-18132

DATE OF DOCUMENT 01-JAN-01

DESCRIPTION OF IMAGERY FOUR MILE RADIUS MAP

NUMBER AND TYPE OF IMAGERY ITEM(S) 1 (Oversized MAP)

BPDR 0017875

NUS CORPORATION
A Halliburton Company

Breslube-Penn
S.I. report
Appendices

ORIGINAL
(Red)

FIELD INVESTIGATION TEAM ACTIVITIES AT UNCONTROLLED HAZARDOUS SUBSTANCES FACILITIES — ZONE I

NUS CORPORATION
SUPERFUND DIVISION

SEPA

POTENTIAL HAZARDOUS WASTE SITE IDENTIFICATION AND PRELIMINARY ASSESSMENT

REGION: III | SITE NUMBER (to be assigned by HQ): PA7066 PAD980690796

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

✓CFC CERCLIS – 12/18/84

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II (Preliminary Assessment). File this form in the Regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (EN-335); 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME: Breslube Penn Inc

B. STREET (or other identifier): 84 Montour Rd

C. CITY: Coraopolis

D. STATE: PA

E. ZIP CODE: 15108

F. COUNTY NAME: Allegheny

G. OWNER/OPERATOR (if known)

1. NAME: Breslube Penn Inc

2. TELEPHONE NUMBER: (412) 264-4280

H. TYPE OF OWNERSHIP

☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☑ 5. PRIVATE ☐ 6. UNKNOWN

I. SITE DESCRIPTION

Lste oil reprocessor

J. HOW IDENTIFIED (i.e., citizen's complaints, OSHA citations, etc.): Erris list

K. DATE IDENTIFIED (mo., day, & yr.): 4/84

L. PRINCIPAL STATE CONTACT

1. NAME: James R Shack

2. TELEPHONE NUMBER: (412) 665-2956

II. PRELIMINARY ASSESSMENT (complete this section last)

A. APPARENT SERIOUSNESS OF PROBLEM

☐ 1. HIGH ☑ 2. MEDIUM ☐ 3. LOW ☐ 4. NONE ☐ 5. UNKNOWN

B. RECOMMENDATION

☐ 1. NO ACTION NEEDED (no hazard)

☑ 3. SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR: Spring '85
b. WILL BE PERFORMED BY: PA DER

☐ 2. IMMEDIATE SITE INSPECTION NEEDED
a. TENTATIVELY SCHEDULED FOR:
b. WILL BE PERFORMED BY:

☐ 4. SITE INSPECTION NEEDED (low priority)

C. PREPARER INFORMATION

1. NAME: James R Shack

2. TELEPHONE NUMBER: (412) 665-2956

3. DATE (mo., day, & yr.): 10/31/84

III. SITE INFORMATION

A. SITE STATUS

☑ 1. ACTIVE (Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)

☐ 2. INACTIVE (Those sites which no longer receive wastes.)

RECEIVED
Division of Operations
NOV 05 1984

☐ 3. OTHER (specify): (Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)

B. IS GENERATOR ON SITE?

☑ 1. NO ☐ 2. YES (specify generator's four-digit SIC Code):

SOLID WASTE MANAGEMENT

C. AREA OF SITE (in acres): ≈ 4

D. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES

1. LATITUDE (deg.–min.–sec.): 40° 30' 008"

2. LONGITUDE (deg.–min.–sec.): 080° 08' 044"

E. ARE THERE BUILDINGS ON THE SITE?

☐ 1. NO ☑ 2. YES (specify): Lube Process bld, Maintance, Office/Lab, Filter Press bld

T2070-2 (10-79)

Continue On Reverse

...tigu... ...om Front

IV. CHARACTERIZATION OF SITE ACTIVITY

...licate the major site activity(ies) and details relating to each activity by marking 'X' in the appropriate boxes.

A. TRANSPORTER	X	B. STORER	X	C. TREATER	X	D. DISPOSER
1. RAIL	X	1. PILE	X	1. FILTRATION		1. LANDFILL
2. SHIP		2. SURFACE IMPOUNDMENT		2. INCINERATION		2. LANDFARM
3. BARGE		3. DRUMS		3. VOLUME REDUCTION		3. OPEN DUMP
4. TRUCK	X	4. TANK, ABOVE GROUND	X	4. RECYCLING/RECOVERY		4. SURFACE IMPOUNDMENT
5. PIPELINE		5. TANK, BELOW GROUND		5. CHEM./PHYS. TREATMENT		5. MIDNIGHT DUMPING
6. OTHER (specify):		6. OTHER (specify):		6. BIOLOGICAL TREATMENT		6. INCINERATION
			X	7. WASTE OIL REPROCESSING		7. UNDERGROUND INJECTION
				8. SOLVENT RECOVERY		8. OTHER (specify):
				9. OTHER (specify):		

. SPECIFY DETAILS OF SITE ACTIVITIES AS NEEDED This site is a waste oil reprocessor.

ORIGINAL
(Red)

V. WASTE RELATED INFORMATION

...E TYPE

☐ 1. UNKNOWN ☒ 2. LIQUID ☒ 3. SOLID ☒ 4. SLUDGE ☐ 5. GAS

. WASTE CHARACTERISTICS

☐ 1. UNKNOWN ☐ 2. CORROSIVE ☒ 3. IGNITABLE ☐ 4. RADIOACTIVE ☐ 5. HIGHLY VOLATILE
☐ 6. TOXIC ☐ 7. REACTIVE ☐ 8. INERT ☐ 9. FLAMMABLE

☐ 10. OTHER (specify):

. WASTE CATEGORIES
1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.

2. Estimate the amount (specify unit of measure) of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT	AMOUNT 2,000,000	AMOUNT	AMOUNT	AMOUNT 20.0 Approx	AMOUNT
UNIT OF MEASURE	UNIT OF MEASURE gallons	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE Ton	UNIT OF MEASURE
X (1) PAINT, PIGMENTS	X (1) OILY WASTES ✓	X (1) HALOGENATED SOLVENTS	X (1) ACIDS	X (1) FLYASH	X (1) LABORATORY PHARMACEUT.
(2) METALS SLUDGES	(2) OTHER (specify): waste oil & sludges	(2) NON-HALOGNTD. SOLVENTS	(2) PICKLING LIQUORS	(2) ASBESTOS	(2) HOSPITAL
(3) POTW		(3) OTHER (specify):	(3) CAUSTICS	(3) MILLING/MINE TAILINGS	(3) RADIOACTIVE
(4) ALUMINUM SLUDGE			(4) PESTICIDES	(4) FERROUS SMLTG. WASTES	(4) MUNICIPAL
(5) OTHER (specify):			(5) DYES/INKS	(5) NON-FERROUS SMLTG. WASTES	(5) OTHER (specify):
			(6) CYANIDE	(6) OTHER (specify): Clay filter media	
			(7) PHENOLS		
			(8) HALOGENS		
			(9) PCB		
			(10) METALS		
			(11) OTHER (specify)		

BPDR 0017878

Continue On Page 3

Continued From Page 2

ORIGINAL (Red)

V. WASTE RELATED INFORMATION (continued)

3. LIST SUBSTANCES OF GREATEST CONCERN WHICH MAY BE ON THE SITE (place in descending order of hazard).

Waste solvents, PCB's, Sludges

4. ADDITIONAL COMMENTS OR NARRATIVE DESCRIPTION OF SITUATION KNOWN OR REPORTED TO EXIST AT THE SITE.

VI. HAZARD DESCRIPTION

A. TYPE OF HAZARD	B. POTENTIAL HAZARD (mark 'X')	C. ALLEGED INCIDENT (mark 'X')	D. DATE OF INCIDENT (mo., day, yr.)	E. REMARKS
1. NO HAZARD				
2. HUMAN HEALTH	X			
3. NON-WORKER INJURY/EXPOSURE				
4. WORKER INJURY	X			
5. CONTAMINATION OF WATER SUPPLY	X			
6. CONTAMINATION OF FOOD CHAIN				
7. CONTAMINATION OF GROUND WATER	X			
8. CONTAMINATION OF SURFACE WATER	X			
9. DAMAGE TO FLORA/FAUNA	X			
10. FISH KILL	X			
11. CONTAMINATION OF AIR	X			
12. NOTICEABLE ODORS	X			
13. CONTAMINATION OF SOIL	X			
14. PROPERTY DAMAGE				
15. FIRE OR EXPLOSION	X			
16. SPILLS/LEAKING CONTAINERS/ RUNOFF/STANDING LIQUIDS	X			
17. SEWER, STORM DRAIN PROBLEMS				
18. EROSION PROBLEMS				
19. INADEQUATE SECURITY				
20. INCOMPATIBLE WASTES				
21. MIDNIGHT DUMPING				
22. OTHER (specify)				

BPDR 0017879

Continue On Reverse

ORIGINAL (Red)

VII. PERMIT INFORMATION

A. INDICATE ALL APPLICABLE PERMITS HELD BY THE SITE.

- [x] 1. NPDES PERMIT
- [ ] 2. SPCC PLAN
- [ ] 3. STATE PERMIT (specify):
- [ ] 4. AIR PERMITS
- [ ] 5. LOCAL PERMIT
- [ ] 6. RCRA TRANSPORTER
- [ ] 7. RCRA STORER
- [ ] 8. RCRA TREATER
- [ ] 9. RCRA DISPOSER
- [ ] 10. OTHER (specify): NPDES PA0044695

B. IN COMPLIANCE?

- [ ] 1. YES
- [x] 2. NO
- [ ] 3. UNKNOWN

4. WITH RESPECT TO (list regulation name & number): NPDES

VIII. PAST REGULATORY ACTIONS

- [ ] A. NONE
- [x] B. YES (summarize below)

IX. INSPECTION ACTIVITY (past or on-going)

A. NONE [ ] B. YES (complete items 1,2,3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION
Water Quality Inspection	1-11-81 6-6-82 2-26-84	State	
RCRA Inspection	2-29-84 12-20-82	State	
" "	11-28-83 2-23-84	EPA	

X. REMEDIAL ACTIVITY (past or on-going)

- [ ] A. NONE
- [ ] B. YES (complete items 1, 2, 3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION

NOTE: Based on the information in Sections III through X, fill out the Preliminary Assessment (Section II) information on the first page of this form.

BPDR 0017880

ORIGINAL
(Red)

FIELD TRIP SUMMARY REPORT

This summary should be prepared in conjunction with the Preliminary Assessment Form, (EPA Form T2070-2), so that a proper site rating can be assigned.

Name of Site Breslube - Penn Inc

EPA Case Number _____

I. If site is active, has owner/operator notified EPA in accordance with Section 3010 of RCRA. Yes ✓ No _____

If Yes: a) Note EPA I.D. No. PAD 980 690 796

b) Is the site a (generator) storer, treater or disposer of hazardous waste? (CIRCLE ONE).

II. If the answers submitted in Part VI (Hazard Description) of EPA Form T2070-2 or observations warrant a more thorough site investigation/sampling, please attach a sketch map showing those areas of concern. (i.e.: lagoons, leachate seeps, drum storage, monitoring wells, etc.).

III. Please list site contacts and accompanying inspectors; include name, title and phone numbers. J. Shark Solid Waste Specialist, PaDER
D. Peterson, Solid Waste Specialist, S. Harper Water Quality Specialist, (412) 665-2900
J. Bailey Engineering Technician EPA (304) 233-1271

IV. Site observations: (attach a topo map).

A. Population within 1000 ft. of the site is (CHECK ONE)

1. 0-10 people
2. (10-100 people)
3. greater than 100 people

B. List surrounding land use: (woodlot, agricultrual, playground, industrial, etc.

North: Woodlot, Industrial

South: Woodlot

East: Woodlot

West: Woodlot

C. Water supply for area. (CHECK ONE)

1. Surface intakes (locate on attached map) 2-4 miles east, located on
2. Municipal wells (locate on attached map) Pittsburgh West quad
3. Domestic wells:

a. Approximate number within ¼ mile. _____

b. Locate a minimum of 3 wells on attached map and list below:

Property owner	Yel Kim		
Address	84 Montana Rd		
Phone No.	(412) 364-9280		
Well records	YES___ NO___	YES___ NO___	YES___ NO___
Odor problems	YES___ NO___	YES___ NO___	YES___ NO___
Taste problems	YES___ NO___	YES___ NO___	YES___ NO___

c. If odor or taste problems are reported please elaborate: _____

Well not being used

D. Are surface or subsurface, (leachate), drainage areas from site apparent? YES ✓ NO___. If yes:

1. Were unusual odors or stains noted? YES ✓ NO___
2. Was stressed vegetation noted? YES___ NO ✓

a. If yes please note area on map.

E. Are streams or receiving waters adjacent to site? YES ✓ NO___
If yes, list observations: (i.e.-change in benthic community, change in plant density/diversity, change in color, siltation, etc.). Oil has been seen seeping out of the bank,

F. Site topography: (i.e.-plateau, strip mine ravines, etc.). _____

Steep walled valley & flood plain

G. Other observations: (i.e.-erosion, located in flood plain, etc.). _____

ORIGINAL
(Red)

V. Were photographs taken? YES ____ NO ✓
If yes: Who has custody of photos?

Name: _____

Agency: _____

Phone No.: _____

VI. Is a hydrogeological survey for this site attached? YES ____ NO ✓
If no, Section III D of EPA Form T2070-2 must be completed.

VII. Please attach pertinent copies of reports or data reviewed by inspector:
(i.e.-State monitoring data, consultant reports, etc.).

VIII. Name of Inspector: James R Shack

Agency: Pa DER

Phone No.: (412) 665-2956

Time on Site: _____

Weather Conditions: _____

ORIGINAL
(Red)

October 26, 1984

PRELIMINARY ASSESSMENT

SUBJECT: Breslube-Penn, Inc.
Moon Township
Allegheny County
EPA I.D. No. PAD980690796

FROM: James R. Shack
Solid Waste Specialist
Bureau of Solid Waste Management

The above referenced facility is a re-refiner of used oil. Originally this facility was owned by Wiseman Oil Company, which filed for bankruptcy.

There are 4 areas of concern at this facility:

1. Wiseman Oil dump approximately 20 tons of clay filter material in the southwest corner of the plant.

2. Two surface impoundments used by Wiseman Oil to store/dispose of tank bottom sludges and centrifuge sludges.

3. Spilled material (primarily oils) inside all of the unlined dikes surrounding the storage and process tanks.

4. Two dumpsters containing centrifuge sludge.

JRS/plk

Attachments-3

ORIGINAL
(Red)

March 12, 1984

SUBJECT: Breslube Penn, Inc.
Moon Township
Allegheny County
EPA I.D.#PAD980690796

TO: File

FROM: James R. Shack
Solid Waste Specialist
Bureau of Solid Waste Management

THROUGH: Dan Peterson
Operations Supervisor
Bureau of Solid Waste Management

On February 29, 1984, various samples were collected by representatives of the EPA and Pa. DER at the above-referenced facility. Representing EPA were James Bailey and Scott McPhilliamy, representing the Allegheny County Health Department, Joe Ruffing, and for the Department were Tony Orlando, Dan Peterson, Jim Shack, Ken Bowman, Sam Harper and Russ McGregor. Representatives for Breslube were Ashen Yelkin, Vice President of Operations and Maryann Cilli, Chemist. The following areas were considered for sample collection:

Sample Point 1 - Composite of Wiseman's acid clay waste piles. Western corner of property, sampled for EP toxic, TOX (2510281) & PCB (2510282). 11:08.

Sample Point 2 - Breslube filter cake, western side of active lagoon. Sampled for EP toxic, TOX (2510283) & PCB's (2510284). 11:24.

Sample Point 3 - Green dumpster No. 1, nearest to tank 108. Sampled for EP toxic, TOX (2510285) & PCB's (2510286). 11:30.

Sample Point 4 - Dumpster No. 2, near west side of active lagoon. Sampled for EP toxic, TOX (2510287) & PCB's (2510288). 11:45.

Sample Point 5 - Dumpster No. 3, adjacent to southern side of active lagoon. Not sampled.

Sample Point 6 - Active lagoon. Sampled by EPA. 11:54.

Sample Point 7 - Closed lagoon (2). Not sampled.

Sample Point 8 - Tank 108, # 4 fuel oil. Sampled for BTU (2510289), flash point (2510290), EP toxic, TOX (2510291) & PCB's (2510292). 12:31.

Sample Points 9, 10, 11 - Tanks 106, 107, sampled by EPA. Tank 105 (Sample point 11, not sampled) 12:30.

Sample Points 12, 13, 14, 15 - Open top tanks not sampled.

* Sample Point 16 - Tank 100, 500 k gallon blue tank. Sludge sampled by EPA. 12:51.

Sample Points 17 and 18 - Sludge from diked areas not sampled.

* Sample Point 19 - crankcase oil (tank 109) sampled by EPA. 1:03.

* Sample Point 20 - Outfall. Sampled for BOD, COD, (2510280). Split with EPA. 1:16.

Sample Point 21 - Vacuum still bottom sludge. Not sampled.

Sample Point 22 - Light ends from dehydrator. Sampled for flash point (2510293). 1:28.

JRS/ld

Attachments - 1

cc: Ken Bowman
Russ McGregor
Tony Orlando
Chuck Duritsa
Sam Harper
Joe Ruffing, ACHD

(Red) Samples not verified

sample #
2510281
org. halides 0.16%
EP TOX
As < 0.005 ppm
Ba 0.17
Cd 0.01
Cr 0.07
Pb 0.22
Hg 0.002
Se 0.01
Ag 0.02

Sample #
2510283
org. halides 0.067%
EP TOX
As 0.005 ppm
Ba 0.12
Cd 0.01
Cr 0.07
Pb 0.36
Hg 0.002
Se 0.01
Ag 0.02

sample #
2510285
org. halides 0.302%
EP TOX
no results

sample #
2510287
org. halides 0.029%
EP TOX
As 0.0085 ppm
Ba 0.11
Cd 0.01
Cr <0.07
Pb 0.3
Hg <0.002
Se <0.01
Ag <0.02

sample #
2510290
flash pt - 68.7° C

sample #
2510291
~~flash pt~~ org. halides - 0.32%

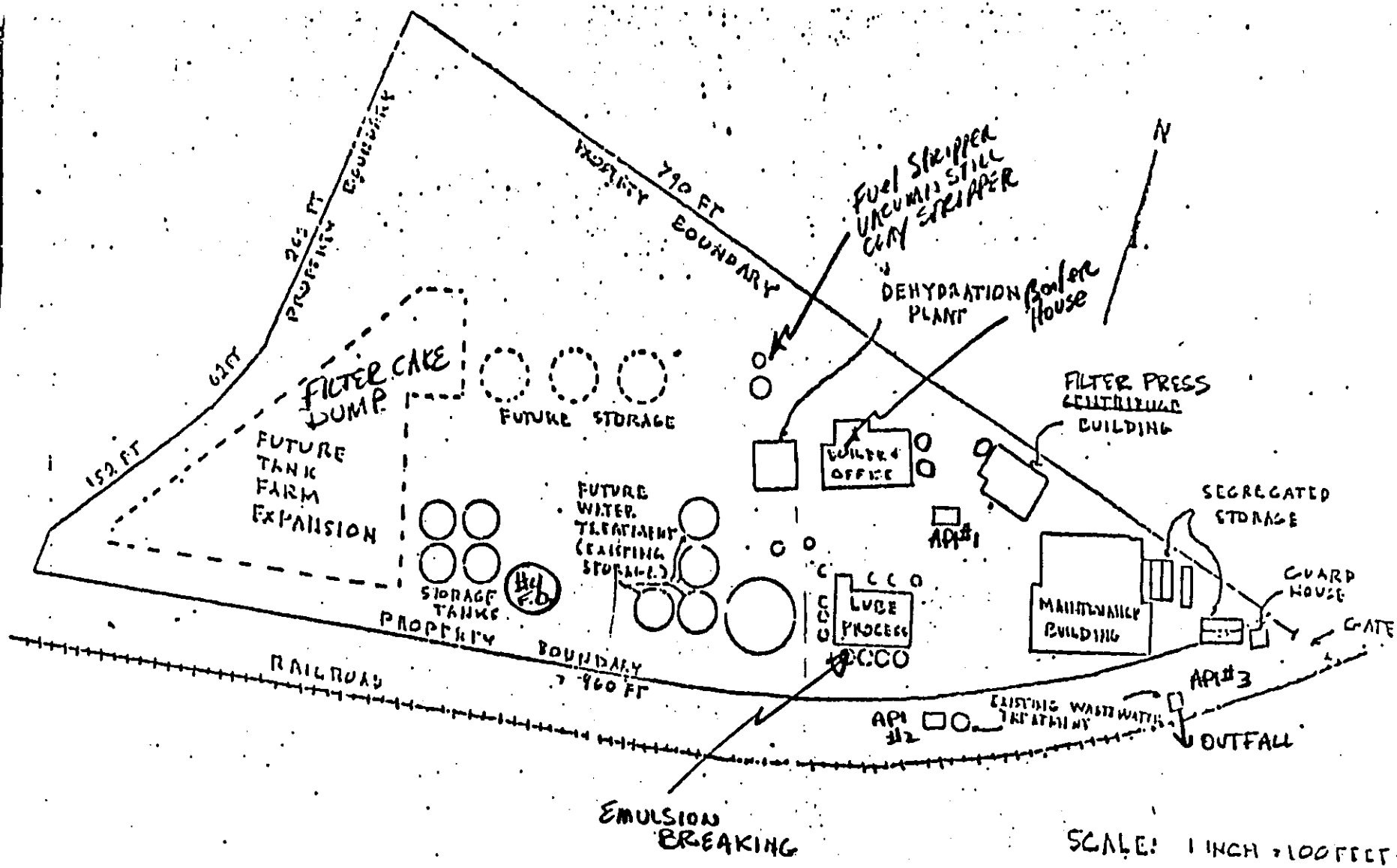
sample #
2510293, flash pt - 36.3°C

ORIGINAL
(Red)

Manilow from Hbg lab called

mple #		analysis		result
510281	wiseman aste pile	TOX	organic halides	.16%
" 283	Freeslube filter cake	TOX		.067%
" 285	Green dumpster #1	TOX		.302%
" 287	Dumpster #2	TOX		.029%
" 289	#4 Fuel Oil (finished)	BTU		18617
" 290		flash point		not done yet
" 291	TANK #108	TOX		.32%

Sample # 2510291 finished #4 fuel oil
Results TOX 32%
(a) exceeds 1/25/84 Guidelines of 1,000 ppm
(b) requires intensive analysis of Appendix A constituents



ORIGINAL (Red)

ORIGINAL
(Red)

-LAB-13.1
11

Lab Number 07571

20184

Date Received

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

ESTABLISHMENT	CASE	FACILITY	COLL NUMBER
Breslube Penn Inc	Breslube Penn Inc	Breslube	2510

COUNTY	MUNICIPALITY	PROGRAM	COLL NAME	TYPE TR	STD ANALYSIS
Allegheny	Moon Twp	SWM	J. Shack		SVD

CARD (3)	ID CODE (ALL CARDS) 4-16	LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24	TIME 25-28	KIND 29
1 / 2	Cnty Mun T Est Case Fac		0	M D Y	Hr Min	

USGS Q 30-34	BUREAU 35-37 AMIS	SAMPLE NUMBER 38-43	STREAM NAME 44-57	RELATIVE POINT 58
	SWM	2510280		

FULL DESCRIPTION WHERE SAMPLE TAKEN Breslube Oil Co Outfall to Montour Run

ADDITIONAL LAB ANALYSES

CUSTODY LOG

How Shipped Date

Legal Seal No.

Received by:

Legal Seal Condition:

BOD & COD

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST _____ SIGNATURE

DATE _____

BPDR 0017890

ORIGINAL
(Red)

WATER AND WASTEWATER REPORT
SAMPLE NUMBER - 8407571

COLLECTOR - J. SHACK SWMS COLLECTOR NO - 2510280
ESTAB - BROOKLINE PONN INC
CASE NAME - BROOKLINE PONN INC
FACILITY - BROOKLINE
ID CODE - NONE WQN STATION NUMBER - 000
SAMPLING DATE - 0/00/00 TIME - 00 LAT - 00:00:00.0 LONG - 00:00:00.0

TYPE - 00 SOURCE - 00 STD ANAL - 500 RECEIVED ON - 3/01/84
REPORT REVIEWED BY DATE - 4/25/84

RCW

STORET	DESCRIPTION	RESULT		CONC	VERIFY BY	VERIFY DATE	COMM CODE
LABORATORY ANALYSIS :							
00310	BOD 5-DAY	365.0000	MG/L	G	LCW	3/12/84	
00340	COD HI LEVEL	1170.0000	MG/L	G	RCW	4/04/84	

SAMPLE COMMENTS

NO SAMPLE COMMENTS

TOTAL NUMBER TEST FOR THIS SAMPLE 0

R-LAB-13.1
/81

(Rev) Lab Number 07662

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Date Received 30284

ESTABLISHMENT	CASE	FACILITY	COLL NUMBER
Breslube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	2510

COUNTY	MUNICIPALITY	PROGRAM	COLL NAME	TYPE TR	STD ANALYSIS
Allegheny	Moon Twp	SWM	J. Shack		

CARD (3)	ID CODE (ALL CARDS) 4-16						LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24			TIME 25-28		KIND 29
	Cnty	Mun	T	Est	Case	Fac			M	D	Y	Hr	Min	
1								0	02	29	84	12	31	
2														

USGS Q 30-34	BUREAU 35-37 AMIS	SAMPLE NUMBER 38-43	STREAM NAME 44-57	RELATIVE POINT 58
	SWM	215 1D 2819		

FULL DESCRIPTION WHERE SAMPLE TAKEN Fuel Oil #4, Tank 108 Sample Point #8

ADDITIONAL LAB ANALYSES

CUSTODY LOG

How Shipped Date

Legal Seal No.

Received by:

Legal Seal Condition

BTU value
Approved by Vince White

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST _____ SIGNATURE

DATE _____

BPDR 0017892

ORIGINAL
(Red)

WATER AND WASTEWATER REPORT

SAMPLE NUMBER - [illegible]

COLLECTOR - J. SHACK [illegible] COLLECTOR [illegible]

ESTAB - [illegible]ESLUBE PENN INC

CASE NAME - [illegible]LUBE PENN INC

FACILITY - [illegible]ESLUBE PENN INC

ID CODE - NONE [illegible]

SAMPLING DATE - [illegible] TIME - [illegible]

[illegible]

P. T. Tyler

[illegible]

[illegible]

[illegible]

(Red)
Lab Number 07710

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Date Received 3/2/84

Breslube Penn Inc	CASE: Breslube Penn Inc	Breslube Penn Inc	2510
Moon Twp	SWM	J. Shack	

		0	02 25 84	12 31	
	SWM	25 10 29 2			

DESCRIPTION WHERE SAMPLE TAKEN: Fuel Oil #4 Tank 105 Sample Point #8

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

Seal Condition:

PCB's
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs in "oil" - None detected

Detection limit 10. mg/kg

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST J. H. [illegible] SIGNATURE DATE 3/23/84

BPDR 0017894

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number 07709

Date Received 3/2/84

...eslube Penn Inc	CASE Breslube Penn Inc	Breslube Penn Inc	2510
...	MUNICIPALITY Mion Twp	PROGRAM SWM	NAME J. Shack

0 | 02 27 84 | 11 45

2 5 1 0 2 5 8

...TAKEN Dumpster Near diversion ditch Sample Point #4

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

...ved by:

...Condition:

PCB's
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs - None detected

Detection limit 10.mg/kg

QUANTITATIVE RESULTS

...ALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST J. H. S... SIGNATURE DATE 3/23/84

BPDR 0017895

B 32 1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

ORIGINAL (Red) Lab Number 07708

Date Received 3/2/84

Breslube Penn Inc	CASE: Breslube Penn Inc	Breslube Penn Inc	2510
[illegible]	MUNICIPALITY: Moon Twp	SWM	J. Shack

0 | 02 29 84 | 11 30

SAMPLE NUMBER: 25 10 2 8 6

Green Dumpster Near Tanks Sample Point #3

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

ved by:

S ondition:

PCB's
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs in "oil" - none detected

Detection limit 10. mg/kg

QUANTITATIVE RESULTS

LYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST [signature] SIGNATURE DATE 3/23/84

BPDR 0017896

3 13 1

ORIGINAL (Red)

Lab Number 07707

Date Received 3/2/84

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

[illegible] Inc	CASE: Breslube Penn Inc	[illegible]: Breslube Penn Inc	[illegible]: 7510
[illegible]	MUNICIPALITY: Moon Twp	PROGRAM: SWM	[illegible]: J. Shack

		0	02 29 84	11 24	
	BUREAU OF LABS: SWM	SAMPLE NUMBER: 25 10 2 8 4	STREAM NAME:		RELATIVE POINT:

[illegible] TAKEN: Breslube Waste Pile Sample Point #2

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

[illegible]

Se[illegible] condition:

PCB's
Approved by Vince White

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs in "oil" - None detected

Detection limit 10 mg/kg

QUANTITATIVE RESULTS

[illegible]LYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST J. H. [illegible] SIGNATURE DATE 3/22/84

BPDR 0017897

B-13 1

ORIGINAL (Red)

Lab Number 07706

Date Received 3/2/84

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Breslube Penn Inc	CASE: Breslube Penn Inc	FACILITY: Breslube Penn Inc	COLL NUMBER: 2510
Allegheny	MUNICIPALITY: McCon Twp	PROGRAM: SWM	COLL NAME: J. Shack

		0	02	24	84	11 09

BUREAU 35-37 AMIS: SWM	SAMPLE NUMBER 38-43: 2510282	STREAM NAME 44-57:	RELATIVE POINT 58:

SAMPLE TAKEN: Wiseman Waste Piles Sample point 1

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

Received

Seal Condition:

PCB's discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs - none detected

Detection limit 10.mg/kg

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST J. H. [illegible] SIGNATURE

DATE 3/23/84

BPDR 0017898

R-LAB-13.1
81

CR

07657

Lab Number

Date Received 30284

SOLS

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

ESTABLISHMENT	CASE	FACILITY	COLL NUMBER
Breslube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	2510

COUNTY	MUNICIPALITY	PROGRAM	COLL NAME	TYPE TR	STD ANALYSIS
Allegheny	Moon Twp	SWM	J. Shack		

CARD (3)	ID CODE (ALL CARDS) 4 16	LATITUDE 4 10	LONGITUDE 11 18	DATE 19 24	TIME 25 28	KIND 29
1 / 2	Cnty Mun T Est Case Fac		0	M D Y: 02 29 84	Hr Min: 11 09	

USGS Q 30 34	BUREAU 35 37 AMIS	SAMPLE NUMBER 38 43	STREAM NAME 44 57	RELATIVE POINT 58
	SWM	2510281		

FULL DESCRIPTION WHERE SAMPLE TAKEN Wiseman Oil Waste Piles Sample Area 1

ADDITIONAL LAB ANALYSES

CUSTODY LOG

How Shipped Date

Legal Seal No.

Received by:

Legal Condition

[redacted] EP TOXIC, TOX

Approved by [redacted] Vince White

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST _____ SIGNATURE

DATE _____

BPDR 0017899

ORIGINAL
(Red)

WATER AND WASTEWATER REPORT
SAMPLE NUMBER - 8407657

COLLECTOR - J. SHACK SWMS COLLECTOR NO - 2510281
ESTAB - BRESLUBE PENN INC
CASE NAME - BRESLUBE PENN INC
FACILITY - BRESLUBE PENN INC
ID CODE - NONE WQM STATION NUMBER - 000
SAMPLING DATE - 2/29/84 TIME - 11:09 LAT - 00:00:00.0 LONG - 00:00:00.0

TYPE - 00 SOURCE - 00 STD ANAL - 500 RECEIVED ON - 3/02/84
REPORT REVIEWED BY DATE - 6/11/84

STORET	DESCRIPTION	RESULT	CONC	VERIFY BY		VERIFY DATE	COMM CODE
LABORATORY ANALYSIS :							
70352	ORG HALIDES	0.1600	% X	G	PTL	3/15/84	
99007	SOILS/QUAL	0.0000		G	MAB	5/10/84	***SEE QUALITATIVE REPORT

SAMPLE COMMENTS

NO SAMPLE COMMENTS

ANALYST COMMENTS

STORET CODE	COMMENTS	ANALYST
99007S	E. P. TOX. RESULTS: (PPM)	MAB
	AS = < 0.005	
	BA = 0.17	
	CD = 0.01	
	CR = < 0.07	
	PB = < 0.02	
	HG = < 0.002	
	SE = < 0.01	
	AG = < 0.02	

TOTAL NUMBER TEST FOR THIS SAMPLE 8

ORIGINAL (Red) 07658

ER-LAB-13.1
8/81

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number

Date Received 30284

ESTABLISHMENT	CASE	FACILITY	COLL NUMBER
Breslube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	2510

COUNTY	MUNICIPALITY	PROGRAM	COLL NAME	TYPE TR	STD ANALYSIS
Allegheny	Moon Twp	SWM	J. Shack		

CARD (3)	ID CODE (ALL CARDS) 4 16	LATITUDE 4 10	LONGITUDE 11 18	DATE 19 24	TIME 25 28	KIND 29
1 / 2	Cnty Mun T Est Case Fac		0	M 02 D 25 Y 84	Hr 11 Min 24	

USGS O 30 34	BUREAU 35 37 AMIS	SAMPLE NUMBER 38 43	STREAM NAME 44 57	RELATIVE POINT 58
	SWM	25 10 283		

FULL DESCRIPTION WHERE SAMPLE TAKEN Breslube Waste Pile Sample Point 2

ADDITIONAL LAB ANALYSES

CUSTODY LOG

How Shipped Date

Legal Seal No.

Received by:

Legal Seal Condition:

EP Toxic, TOX
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

QUANTITATIVE RESULTS

ANALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST _____ DATE _____
SIGNATURE

BPDR 0017901

WATER AND WASTEWATER REPORT

SAMPLE NUMBER - 8407659

COLLECTOR - J. SHACK SWMS COLLECTOR NO - 0510283
ESTAB - BRESLUBE PENN INC
CASE NAME - BRESLUBE PENN INC
FACILITY - BRESLUBE PENN INC
ID CODE - NONE WQN STATION NUMBER - 000
SAMPLING DATE - 2/29/84 TIME - 11:24 LAT - 00:00:00.0 LONG - 00:00:00.0

TYPE - 00 SOURCE - 00 STD ANAL - 500 RECEIVED ON - 3/02/84
REPORT REVIEWED BY DATE - 6/11/84

STORET	DESCRIPTION	RESULT	CONC	VERIFY BY	VERIFY DATE	COMM CODE
LABORATORY ANALYSIS :						
70352	ORG HALIDES	0.0670	% X	G PTL	3/16/84	
99007	SOILS/QUAL	0.0000		G MAB	5/10/84	***SEE QUALITATIVE REPORT

SAMPLE COMMENTS

NO SAMPLE COMMENTS

ANALYST COMMENTS

STORET CODE	COMMENTS	ANALYST
99007S	E. P. TOX. RESULTS: (PPM) AS = < 0.005 BA = 0.12 CD = 0.01 CR = < 0.07 PB = 0.36 HG = < 0.002 SE = < 0.01 AG = < 0.02	MAB

TOTAL NUMBER TEST FOR THIS SAMPLE 9

AB-13.1

ORIG ... (Re...

Lab Number 07660

Date Received 30284

SOILS

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

...BLISHMENT	CASE	FACILITY	COLL NUMBER
...reslube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	2510

...NTY	MUNICIPALITY	PROGRAM	COLL NAME	TYPE TR	STD ANALYSIS
...llegheny	Moon Twp	SWM	J. Shack		

CARD (3)	ID CODE (ALL CARDS) 4 16	LATITUDE 4 10	LONGITUDE 11 18	DATE 19 24	TIME 25 28	KIND 29
1 / 2	Cnty Mun T Est Case Fac		0	M D Y: 02 29 84	Hr Min: 11 45	

...GS Q 30 34	BUREAU 35 37 AMIS	SAMPLE NUMBER 38 43	STREAM NAME 44 57	RELATIVE POINT 58
		2 5 1 0 2 8 7		

...L DESCRIPTION WHERE SAMPLE TAKEN Dumpster near diversion ditch Sample Point #4

ADDITIONAL LAB ANALYSES

CUSTODY LOG

...v Shipped Date

...al Seal No.

...eiv... ...y:

...al ... Condition:

EP Toxic, TOX
Approved by Vince White

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

QUANTITATIVE RESULTS

...ALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST _____ DATE _____
SIGNATURE

BPDR 0017903

WATER AND WASTEWATER REPORT

SAMPLE NUMBER - 8407660

COLLECTOR - J. SHACK SWMS COLLECTOR NO - 2510287
ESTAB - BRESLUBE PENN INC
CASE NAME - BRESLUBE PENN INC
FACILITY - BRESLUBE PENN INC
ID CODE - NONE WQN STATION NUMBER - 000
SAMPLING DATE - 2/29/84 TIME - 11:45 LAT - 00:00:00.0 LONG - 00:00:00.0

TYPE - 00 SOURCE - 00 STD ANAL - 500 RECEIVED ON - 3/02/84
REPORT REVIEWED BY DATE - 6/11/84

STORET	DESCRIPTION	RESULT	CONC	VERIFY BY		VERIFY DATE	COMM CODE
LABORATORY ANALYSIS :							
70352	ORG HALIDES	0.0290	% X	G	PTL	3/16/84	
99007	SOILS/QUAL	0.0000		G	MAB	5/10/84	***SEE QUALITATIVE REPORT

SAMPLE COMMENTS

NO SAMPLE COMMENTS

ANALYST COMMENTS

STORET CODE	COMMENTS	ANALYST
99007S	E. P. TOX. RESULTS: (PPM)	MAB

AS = 0.0085
SA = 0.11
CD = 0.01
CR = < 0.07
PB = 0.30
HG = < 0.002
SE = < 0.01
AG = < 0.02

TOTAL NUMBER TEST FOR THIS SAMPLE 9

B-13.1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number 07706

Date Received 3/2/84

ISHMENT	CASE	FACILITY	COLL NUMBER
Breslube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	2510

	MUNICIPALITY	PROGRAM	COLL NAME	TYPE TR	STD ANALYSIS
Allegheny	Moon Twp	SWM	J. Shack		

ARD (3)	ID CODE (ALL CARDS) 4 16						LATITUDE 4 10	LONGITUDE 11 18	DATE 19 24			TIME 25 28		KIND 29
1/2	Cnty	Mun	T	Est	Case	Fac		0	M	D	Y	Hr	Min	
									02	29	84	11	09	

5 0 30 34	BUREAU 35 37 AMIS	SAMPLE NUMBER 38 43	STREAM NAME 44 57	RELATIVE POINT 58
	SWM	251028		

DESCRIPTION WHERE SAMPLE TAKEN Wiseman Waste Piles Sample point 1

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

ved by:

S. ndition:

PCB's
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs - none detected

Detection limit 10 mg/kg

QUANTITATIVE RESULTS

LYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST J. H. Maljevac
SIGNATURE

DATE 3/23/84

BPDR 0017905

3-13.1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number 07707

Date Received 3/2/84

ISHMENT	CASE	FACILITY	COLL NUMBER
eslube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	2510

	MUNICIPALITY	PROGRAM	COLL NAME	TYPE TR	STD ANALYSIS
leghany	Moon Twp	SWM	J. Shack		

RD (3)	ID CODE (ALL CARDS) 4 16	LATITUDE 4 10	LONGITUDE 11 18	DATE 19 24	TIME 25 28	KIND 29
2	Cnty Mun T Esi Case Fac		0	M D Y: 02 29 84	Hr Min: 11 24	

O 30 34	BUREAU 35 37 AMIS	SAMPLE NUMBER 38 43	STREAM NAME 44 57	RELATIVE POINT 58
	SWM	25 10 2 8 4		

DESCRIPTION WHERE SAMPLE TAKEN Breslube Waste Pile Sample Point #2

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

ed

Seal Condition

PCB's
Approved by Vince White

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs in "oil" - none detected

Detection limit 10 mg/kg

QUANTITATIVE RESULTS

LYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST J. H. Maljevac
SIGNATURE

DATE 3/23/84

BPDR 0017906

AS-13.1

ORIGINAL (Red)

Lab Number 07708

Date Received 3/2/84

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

BLISHMENT	CASE	FACILITY	COLL NUMBER
Breslube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	2510

TY	MUNICIPALITY	PROGRAM	COLL NAME	TYPE TR	STD ANALYSIS
llesheny	Moon Twp	SWM	J. Shack		

ARD (3)	ID CODE (ALL CARDS) 4-16	LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24	TIME 25-28	KIND 29
1 / 2	Cnty Mun T Est Case Fac		0	M D Y: 02 29 84	Hr Min: 11 30	

S Q 30-34	BUREAU 35-37 AMIS	SAMPLE NUMBER 38-43	STREAM NAME 44-57	RELATIVE POINT 58
		25 10 2 8 6		

DESCRIPTION WHERE SAMPLE TAKEN Green Dumpster Near Tanks Sample Point #3

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

l Seal No.

ived by:

l Condition:

PCB's
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs in "oil" - none detected

Detection limit 10. mg/kg

QUANTITATIVE RESULTS

ALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST J. H. Maljevac
SIGNATURE

DATE 3/23/84

BPDR 0017907

B-13.1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number 07709

Date Received 3/2/84

LISHMENT	CASE	FACILITY	COLL NUMBER
eslube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	2510

	MUNICIPALITY	PROGRAM	COLL NAME	TYPE TR	STD ANALYSIS
esheny	Moon Twp	SWM	J. Shack		

ARD (3)	ID CODE (ALL CARDS) 4 16	LATITUDE 4 10	LONGITUDE 11 18	DATE 19 24	TIME 25 28	KIND 29
1 / 2	Cnty Mun T Esi Case Fac		0	M 02 D 29 Y 84	Hr 11 Min 45	

S Q 30 34	BUREAU 35 37 AMIS	SAMPLE NUMBER 38 43	STREAM NAME 44 57	RELATIVE POINT 58
		2 5 1 0 2 8 8		

DESCRIPTION WHERE SAMPLE TAKEN Dumpster Near diversion ditch Sample Point # 4

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

Seal No.

ved by:

S ndition:

PCB's
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs - None detected

Detection limit 10. mg/kg

QUANTITATIVE RESULTS

LYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST J. H. Maljevac
SIGNATURE

DATE 3/23/84

BPDR 0017908

ORIGINAL

AB-13.1 Solid Waste

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number 07710

Date Received 3/2/84

...BLISHMENT	CASE	FACILITY	COLL NUMBER
...reslube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	2510

...	MUNICIPALITY	PROGRAM	COLL NAME	TYPE TR	STD ANALYSIS
...llegheny	Moon Twp	SWM	J. Shack		

...ARD (3)	ID CODE (ALL CARDS) 4-16	LATITUDE 4-10	LONGITUDE 11-18	DATE 19-24	TIME 25-28	KIND 29
1 / 2	Cnty Mun T Est Case Fac		0	M 02 D 29 Y 84	Hr 12 Min 31	

...S O 30-34	BUREAU 35-37 AMIS	SAMPLE NUMBER 38-43	STREAM NAME 44-57	RELATIVE POINT 58
	SWM	25 10 29 2		

DESCRIPTION WHERE SAMPLE TAKEN Fuel Oil #4 Tank 108 Sample Point #8

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

...l Seal No.

...ived

...l Seal Condition

PCB's
discussed with Sam Harvey

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

PCBs in "oil" - None detected

Detection limit 10. mg/kg

QUANTITATIVE RESULTS

...ALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST J. H. Maljevac
SIGNATURE

DATE 3/23/84

BPDR 0017909

AB-13.1

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF LABORATORIES
SPECIAL ANALYSES REPORT

Lab Number 07662

Date Received 30284

BLISHMENT	CASE	FACILITY	COLL NUMBER
Breslube Penn Inc	Breslube Penn Inc	Breslube Penn Inc	2510

TY	MUNICIPALITY	PROGRAM	COLL NAME	TYPE TR	STD ANALYSIS
Alleghen	Moon Twp	SWM	J. Shack		

ARD (3)	ID CODE (ALL CARDS) 4 16	LATITUDE 4 10	LONGITUDE 11 18	DATE 19 24	TIME 25 28	KIND 29
1 / 2	Cnty Mun T Est Case Fac		0	M 02 D 29 Y 84	Hr 12 Min 31	

S O 30 34	BUREAU 35 37 AMIS	SAMPLE NUMBER 38 43	STREAM NAME 44 57	RELATIVE POINT 58
	SWM	25 10 2 8 9		

L DESCRIPTION WHERE SAMPLE TAKEN Fuel Oil #4, Tank 105 Sample Point #5

ADDITIONAL LAB ANALYSES

CUSTODY LOG

Shipped Date

l Seal No.

ived by:

l Condition:

BTU value
Approved by Vince White

QUALITATIVE REPORT

DO NOT WRITE BELOW THIS LINE

QUANTITATIVE RESULTS

ALYSIS:	UNITS:	ANALYSIS CODE	RESULTS (SHOW DECIMAL POINTS ON LINES)

ANALYST _____ DATE _____
SIGNATURE

BPDR 0017910

WATER AND WASTEWATER REPORT

SAMPLE NUMBER - 6407662

COLLECTOR - J. SHACK SWMS COLLECTOR NO - 2510267
ESTAB - BRESLUBE PENN INC
CASE NAME - BRESLUBE PENN INC
FACILITY - BRESLUBE PENN INC
ID CODE - NONE WQN STATION NUMBER - 000
SAMPLING DATE - 2/29/84 TIME - 12:31 LAT - 00:00:00.0 LONG - 00:00:00.0

TYPE - 00 SOURCE - 00 STD ANAL - 500 RECEIVED ON - 3/02/84
REPORT REVIEWED BY DATE - 3/07/84

P. T. Tyler

STORET	DESCRIPTION	RESULT	CONC	VERIFY BY	VERIFY DATE	COMM CODE
LABORATORY ANALYSIS :						
99003	BTU	18617.0000	6	PTL	3/06/84	

SAMPLE COMMENTS

NO SAMPLE COMMENTS

TOTAL NUMBER TEST FOR THIS SAMPLE 0

BRESLUBE-PENN INC.

64 MONTOUR ROAD, CORAOPOLIS, PENNSYLVANIA 15108

TEL (412) 264-4280
TELEX 00902977

April 25, 1984

Daniel F. Peterson
Operations Supervisor
Commonwealth of Pennsylvania
Department of Environmental Resources
1303 Highland Building
121 S. Highland Avenue
Pittsburgh, Pennsylvania 15206

RE: Laboratory Analysis Report of Drinking Water

Dear Mr. Peterson:

Please find the attached copy of the laboratory reports concerning the full chemical and bacteriological analysis of the drinking water wells at our Coraopolis Plant .

If you have further questions please feel free to contact me.

Yours truly,

Ahsen Yelkin
Vice President of Operations

cc: Alan S. Miller
Terry R. Fabian
Charles A. Duritsa
Ken Bowman
Samuel Harper
James Shack
Howard J. Wein
Joseph Chalhoub
Frank Wagner

enclosure: Laboratory Reports
Full Chemical and Bacteriological Analysis

RE-REFINING YOUR USED OIL

ChesterLaboratories

A Division Of
The**Chester**Engineers
846 Fourth Avenue
Coraopolis
Pennsylvania 15108
Phone (412) 262-1035

Laboratory Analysis Report
For

BresLube-Penn, Inc.
Coraopolis, Pennsylvania

Samples Received: 4/17/84
Report Date: 4/23/84

Drinking Water Well Analyses

Source	Office Well	White House Well	Green House Well
Log No. 84-	2258	2259	2260
Date Collected	4/17/84 @ 1:30 PM	4/17/84 @ 1:30 PM	4/17/84 @ 1:30 PM
Total Coliform, No./100 mL	3	3	520
BOD_5, mg/L	<1	<1	2.2
Total PCB, mg/L*	<0.001	<0.001	<0.001
Phenol, mg/L PhOH	<0.004	<0.004	<0.004
Copper, mg/L Cu	0.33	0.10	0.008
Iron, mg/L Fe	0.32	0.27	0.22
Lead, mg/L Pb	0.005	<0.005	0.007
Manganese, mg/L Mn	0.015	0.005	0.072
Nickel, mg/L Ni	0.008	<0.005	0.005
Zinc, mg/L Zn	0.16	0.30	0.018

*None Detected

2813-01

- Unless otherwise noted, analyses are in accordance with methods and procedures outlined and approved by the Environmental Protection Agency and conform to quality assurance protocol.
- "Less-than" (<) values are indicative of the detection limit.

ORIGINAL

The Chester Engineers

Engineers
Architects
Planners

P.O. Box 9356
Pittsburgh
Pennsylvania 15225

DATE April 24, 1984

JOB NO. 2813-01

ATTENTION Mr. Ahsen Yelkin

RE Analyses

TO: BresLube-Penn, Inc.
84 Montour Road
Coraopolis, PA 15108

GENTLEMEN:

We are sending [X] herewith [ ] under separate cover the following items:

[ ] Shop Drawings [ ] Plans

Copies	Drawing No.	Description
1	----	Analytical Data

These are transmitted as checked below:

[ ] Approved [ ] Not Approved [ ] For Review & Comment

[ ] Approved As Corrected [X] For Your Use [ ] For Approval

[ ] Revise & Resubmit [ ] As Requested [ ] _____

Remarks

Copies to

By R. Helwick, C.P.C.

R. Helwick, C.P.C.

Jim Stock
SCM - 4th floor

February 6, 1984

SUBJECT: Breslube Enterprises
Moon Township

TO: File 02-72

FROM: Ken Bowman, Chief
Engineering Services

THROUGH: Joe Pezze
Operations Chief

Nick Pazuchanics
Regional Air Pollution
Control Engineer

On February 1, 1984, Ken Bowman and Joe Ruffing (ACHD - BAPC) conducted an unannounced inspection of the Moon Township facility. Mr. Ashen Yelkin, Plant Manager, was interviewed and accompanied us on the inspection. The following observations and recommendations are made:

1. Process Description (see Attachments 1 and 2)

The plant processes three distinct wastes: (1) re-refineable oils consisting of crank case and transformer oils; (2) un-refineable oils consisting of various tank bottom sludges; and (3) "oily waters" consisting of metal cleaning wastes from industry. Refineable means oils that may be processed into lubricating oil while unrefineable means oil processed into Number 4 fuel oil equivalent.

Waste oils (crankcase, hydraulic, coating, and transformer oils) from gas stations and industry are brought into the plant by tank trucks owned by Breslube or from recyclers and pumped to a measuring tank so that an account may be made of gallonage. Samples are taken to determine water content since accounts are paid on a net (dry) basis for oil. Other tests are run to determine distillation properties. No other tests are run which would qualitatively identify contaminants in the oil. Industrial accounts are supposedly checked before shipment for PCB's but no assurance is given that the samples and shipment match up qualitatively.

All waste oils are first dehydrated in an atmospheric evaporator which is steam heated to 240° F. The overheads are cooled in a shell and tube heat exchanger by cooling water. The condensed overheads are sent to a gravity separator. The hydrocarbon fraction consisting of low boiling hydrocarbons and solvents is sent to the No. 4 fuel oil storage tank for disposal. The water fraction is sent to an API separator. Bottoms from the evaporator are sent either to the No. 4 fuel oil storage tank (unrefineable oil) or to the fuel stripper (re-refineable oil) for further distillation.

BPDR 0017915

ORIGINAL
(Red)

The fuel stripper is an atmospheric tower with reboiler and overhead condensor. The still is operated around 575°F. An 8.5 mm btu/hr fired heater provides the heat sink. Fuel for the heater is No. 2 oil equivalent derived from the top fraction of the fuel stripper. The top fraction is condensed in a shell and tube heat exchanger and sent to the No. 4 fuel oil equivalent storage tank.

The bottoms from the fuel stripper are sent to a surge tank and then steam heated to 240°F before entering a vacuum distillation column operated at 40 mm of mercury and 650°F. The vacuum still is an an open tower with reboiler and overhead condenser. Another 8.5 mm btu/hr fired heater is used as the heat sink. Fuel is No. 2 fuel oil equivalent as previously described. The vacuum tower is necessary so that a lower distillation temperature may be used as operating at atmospheric pressure would cause coking in the still. Bottoms from the still containing oil additivies such as viscosity improvers, anti-foaming agents, and heavy metals such as lead and cadmium are sent to the No. 4 fuel oil storage tank for disposal. The top fraction (raw lubricating oil) is cooled, then sent to a tank under vacuum with the off-gas drawn through a vacuum pump discharging to a stripper using water as a medium for condensing hydrocarbons. The waste water is discharged directly on the ground and collected by a API separator. Off-gas is sent back to the fired heater for incineration.

The collected lubricating oil is then sent to a clay tower operated at atmospheric pressure and elevated temperature so that the clay may remove heavy hydrocarbons which affect color and odor of the oil. The top fraction is blended with the fuel stripper overhead.

The bottoms are sent to parallel plate and frame filter presses operating alternatively with a final topping plate and frame filter press in series. The clay is removed in the filter presses and the decolorized lubricating oil is sent to a product storage tank. The filtering process is complete when no more oil flows through a product site glass or the pressure on the plates causes a leak, whichever comes first. The pressure is then relieved and compressed air is sparged through the filter cake to remove additional oil. The vent lines are sent to a storage tank and sparge air vented to atmosphere. The filter cake sludge is then dumped into a hi-lift which takes the material to a dump on site.

The other process of significance is the "oily water" process. Essentially, the operation consists of emulsion breaking through use of chemical additivies. The water is sent to an API separator and discharged into Montour Creek. The flocculent sludge is sent to the No. 4 fuel oil storage tank for disposal.

According to Mr. Yelkin, unrefineable oil is stored for later processing as re-refineable oil is more profitable. Four open-top cement storage tanks of approximately 100,000 gallon capacity contain such oil. Three of the tanks are near capacity. A large blue cement tank

is empty. The dike around the five tanks is several feet deep in sludge and oil. Further down the property are four 116,000 gallon cone/roofed atmospheric tanks used for storing waste oil and one flat-roofed 250,000 gallon tank used for No. 4 fuel oil equivalent storage. The 250,000 gallon tank is new. The dike around the four waste oil tanks has an accumulation of oil and sludge in the diked area.

Beyond the last storage tank area is a disposal area for clay sludge (centrifuge sludge from the previous occupant) and fresh filter cake sludge from Breslube. The sludge contains lubricating oil and possibly PCB's if transformer oil had been processed. Metals should not be present in the filter cake sludge having been removed in the vacuum still. The filter cake disposal area is located near a runoff ditch with overflow pipe discharging directly into Montour Creek.

2. Air Pollution Problem

Malodors were detected from the oil recirculation pumps of the fired heaters. Stuffing oil is pumped on the packings, but one had plugged allowing volitization of hydrocarbons. Snuffing steam is also employed. The pumps should be equipped with mechanical seals.

Another area of malodors is the contact water in the stripping column of the vacuum column still. The wastewater discharged onto the ground has a sharp acrid sour odor. The API separators all have distinct and unpleasant odors. The final discharge into Montour Creek also has a sour odor. Mr. Ruffing explained that citizen complaints of malodors downstream of the plant had been received in addition to complaints of malodors downwind of the plant. The sparge area used in the filter press process is another source of very strong malodors.

Finally, large accumulations of crankcase oil on the site have a characteristic odor. Good housekeeping is needed here to minimize odors from oil spillage. Also the open storage tanks could be a problem in the summer months. Presently ACHD has four permits under review and thus a handle is available to require additional controls from Breslube. Mr. Yelkin indicated the company's intention to install another evaporator to process unrefinable oil exclusively.

3. Water Quality

Two obvious discharges into Montour Creek are apparent. The first discharge is the last API separator. The discharge represents plant runoff, vacuum still stripper column water, and wastewater from the emulsion breaking process. The discharge into the stream has an oil boom to collect additional oil and scum. An oil sheen was visible outside the boom. Offensive odors were also apparent in the discharge water. Mr. Yelkin stated that Breslube had an NPDES permit apparently transferred from the previous occupant (Wiseman Oil). According to Water Quality Management no industrial waste permit has ever been issued.

The other discharge would occur intermittently when a runoff ditch overflows into a culvert discharging into Montour Creek. Leachate from the filter cake sludge would contaminate such water.

4. Solid Waste

The solid waste problem concerns filter cake sludge on site disposal and a sludge and oil accumulations in tank areas. Prompt and proper removal with good housekeeping thereafter would help. Solid Waste Management will have to determine the types of materials entering the plant for hazardous waste determination. Investigating the accounts and checking the generators would be required. Solid Waste Management should resolve the issue of whether flocculent sludge, solvents and heavy metals should be disposed of through fuel blending with Air Quality review or sent to a proper landfill.

Recommendations

1. DER-BAQC should assist the ACHD in processing their Air Quality permits to insure resolution of malodor complaints.

2. DER-BAQC should assist WQM on the API separator malodor problems.

3. DER-WQM should resolve the permit violations for the API separator and require proper monitoring and control. Investigation of the oily water accounts may help define the permit parameters.

4. DER-WQM and SWM should require immediate clean up of the tank dike areas and filter cake sludge.

5. DER-AQ and SWM should investigate the waste oil accounts to better characterize the input to the plant and thus resolve the ultimate sink for the heavy metals.

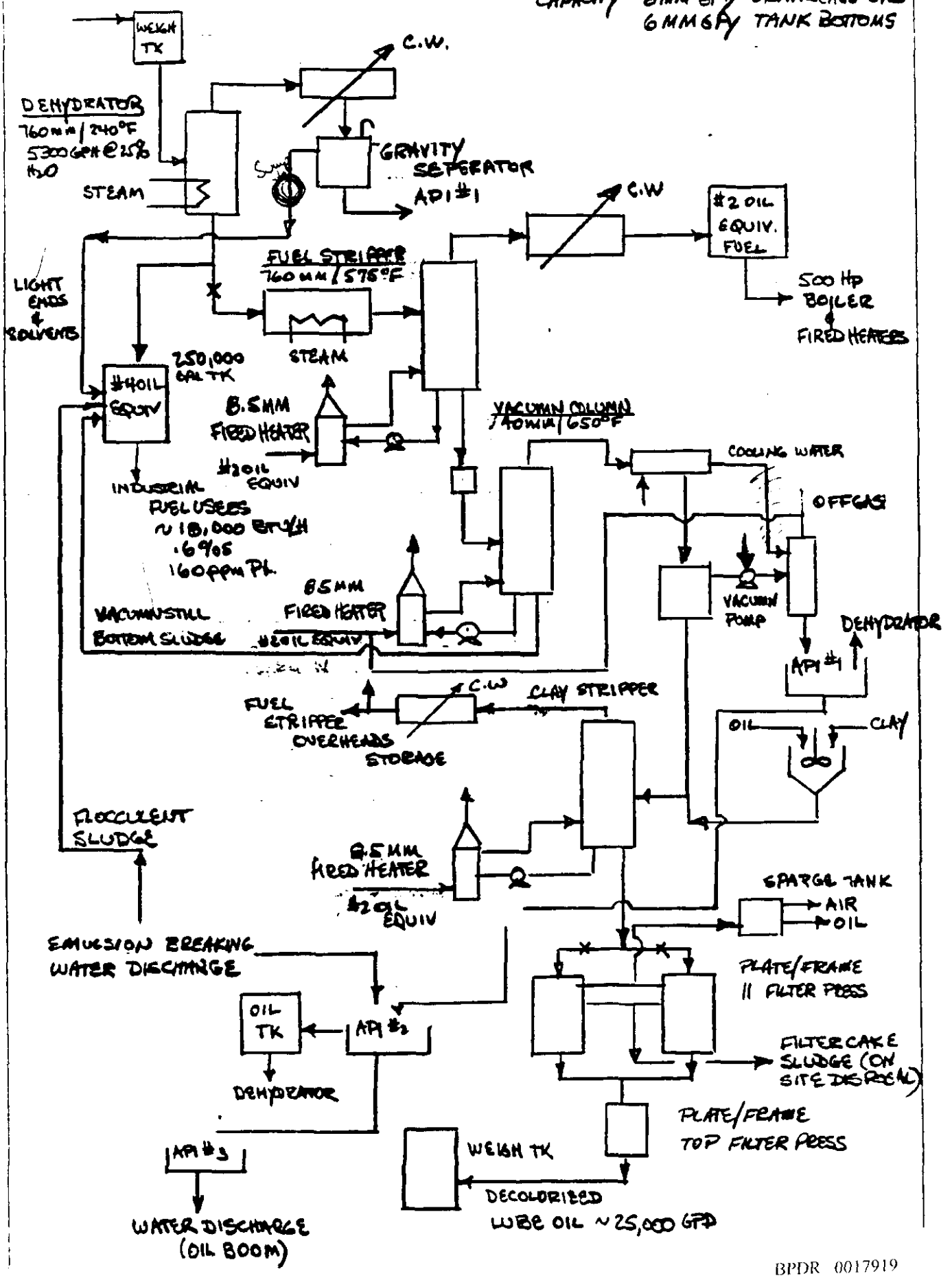
KB/ld

cc: Sam Harper, WQM
Jim Shack, SWM
Howard Wein, Assistant General Counsel

REV 1

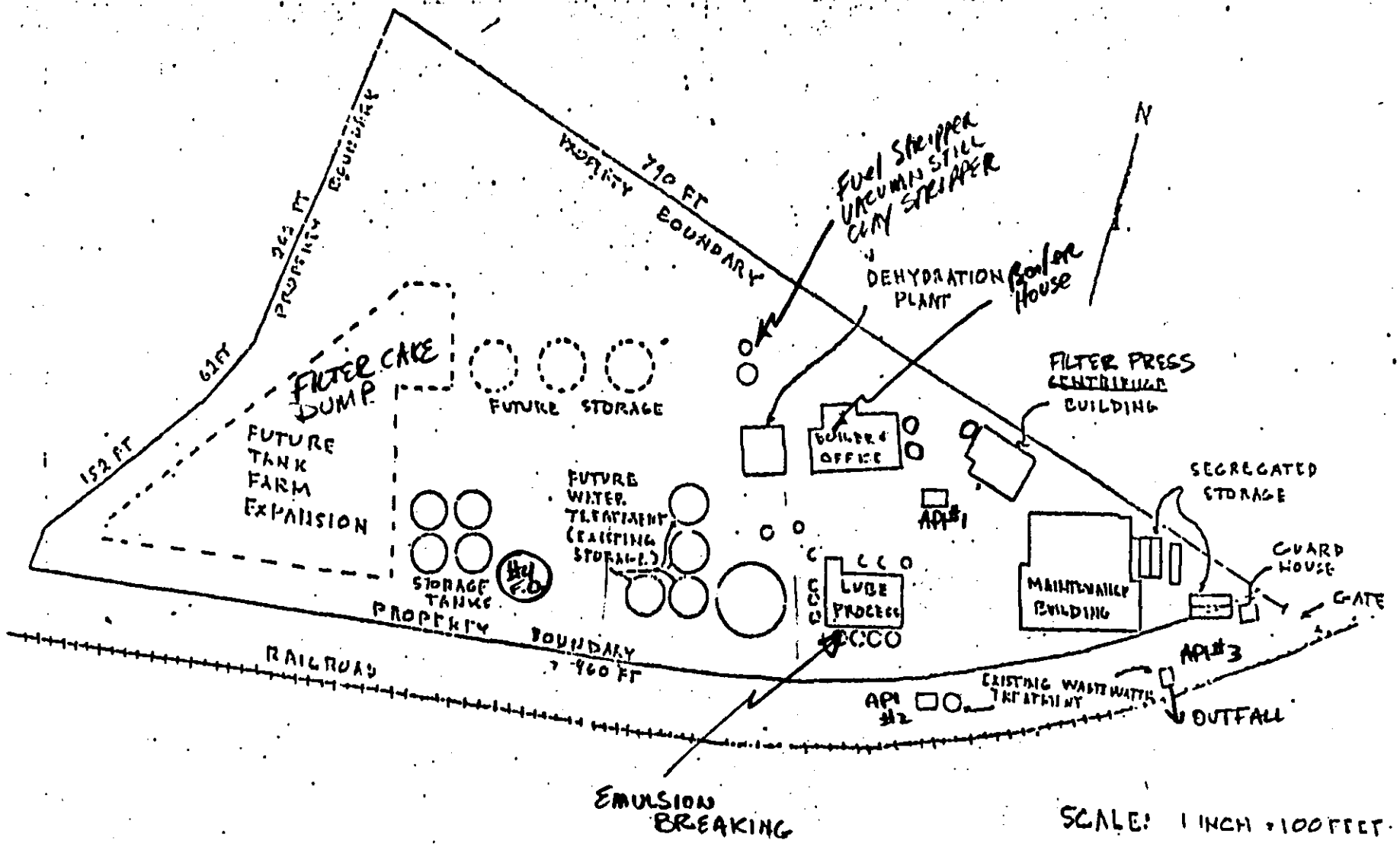
ORIGINAL (Rev) 2-1-84 KB

CAPACITY 6MM GPY CRANKCASE OILS
6MM GPY TANK BOTTOMS



BPDR 0017919

ORIGINAL (Red)



BPDR 0017920

ORIGINAL
(Red)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401

301-224-2740
FTS-922-3752

DATE : April 4, 1984

SUBJECT: Breslube - Penn Inc. - PCBs
RCRA, 840305-01-05, 07

FROM : James Jerpe
Chemist

TO : Daniel K. Donnelly
Chief, Annapolis Lab

THRU : John Austin
Team Leader, Organic Analysis Unit

Samples were examined for the presence of PCBs.

Sample extracts were chromatographed on a SE-54 narrow-bore capillary column temperature programmed to 240°C using electron-capture detection. Known concentrations of authentic standards were chromatographed under the sample conditions whereby relative retention times were compared to the elution of standard.

Attached is a list of standards whose relative retention times were compared with sample and the lowest detection limit for each compound.

Sample Description and Results:

Lab No.	Description	PCB mg/kg
840305-01	Breslube - Penn Inc., consolidated active lagoon, Sta. 6	N.D.
-02	Breslube - Penn Inc., Tanks 106 & 107, Stas. 9 & 10	N.D
-03	Breslube - Penn Inc., Tank No. 100, Sta. 16	N.D.
-04	Breslube - Penn Inc., Tank No. 109, Sta. 19	N.D.
-05	Breslube - Penn Inc., Light ends from dehydrator, Sta. 22	N.D.*
-07	Breslube - Penn Inc., Blank	N.D.

*Sample 840305-05 contains organic solvents which grossly saturate electron-capture detector. Attempts to extract aroclors into other solvents were unsuccessful. This sample is not amenable to EC-GC and thus reported N.D.

N.D. = None Detected

JJ:ad

cc: P. J. Krantz
QAO, CRL

PESTICIDE/PCBS PRIORITY POLLUTANT COMPOUND DETECTION LIMITS

Parameter	Cas Number	Soil/Sediment mg/kg
PCB 1016	12674-11-2	0.4
PCB 1221	11104-28-2	1.0
PCB 1232	11141-16-5	1.0
PCB 1242	53469-21-9	0.5
PCB 1248	12672-29-6	0.8
PCB 1254	11097-69-1	0.8
PCB 1260	11096-82-5	1.5

BPDR 0017922

ORIGINAL
(Red)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401

301-224-2740
FTS-922-3752

DATE : May 4, 1984

SUBJECT: Breslube-Penn Inc. Samples for TOX
RCRA, 840305-02 - 05

FROM : James Barron JB
Chemist

TO : Daniel K. Donnelly
Chief, Annapolis Lab

THRU : John Austin
Team Leader, Organic Analysis Unit

RECEIVED
MAY 21 1984
ENVIRONMENTAL PROTECTION AGENCY
ESD WHEELING

Samples were received for Total Organic Halides. Due to a misunderstanding of what this test can analyse, TOX as noted in EPA's solid waste manual could not be performed. TOX is to be done on drinking water or ground water. The trace organic-halides are captured on actived charcoal, turned catalytically, determined as chlorides in a coulometric cell. The samples submitted were oil or contained sufficient organic material to plug the carbon tubes. It was agreed to check for volatile organic-halide solvents in these samples with sufficient oil to retain the solvents. Those samples are listed below.

Sample Description:

Lab No.	Description
840305-02	Breslube-Penn Inc., Tanks 106 & 107, Sta. 9 & 10
-03	Breslube-Penn Inc., Tank No. 100, Sta. 16
-04	Breslube-Penn Inc., Tank No. 109, Sta. 19
-05	Breslube-Penn Inc., Light ends from dehydrator, Sta. 20

Results:

Lab No.	1,1,1-Trichloroethane	TCE	Tetrachloroethylene
840305-02	N.D.(1)	N.D.(1)	N.D.(1)
-03	13,782 ppm	6,841 ppm	10,776 ppm
-04	261 ppm	--	173 ppm
-05	1,400 ppm	1,760 ppm	23,790 ppm

N.D. = None Detected
(1) Detection Limit = 1 ppm. 1:10 dilution of oil in Hexane.

JB:ad

cc: P. J. Krantz
QAO, CRL

U.S. Environmental Protection Agency, Region III, Central Regional Laboratory

Project Name: Breslube - Penn - RCRA

Sample Number:	840305-01	840305-02	840305-03	840305-04	840305-05
	ppm	ppm	ppm	ppm	ppm
Parameter	Sta.6	Stas 9& 10	Sta. 16	Sta. 19	Sta.22
Chromium	190	160	90	<30	--
Copper	175	150	100	100	--
Iron	6900	2600	4200	650	100
Lead	350	115	680	500	--
Nickel	40	65	20	<10	--
Tin	80	30	60	--	--
Zinc	405	140	175	720	--

The EP Toxicity test is not amenable to oil samples

BPDR 0017924

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION III
ENVIRONMENTAL SERVICES DIVISION
WHEELING LABORATORY SECTION

TOXICITY TEST CONDITIONS AND RESULTS

SAMPLE DESCRIPTION

Company Name: Breslube-Penn, Inc.
Permit No.: PAD 980690796 RCRA
Location: Coraopolis, PA
Outfall No.: 001
Sample Date(s): 2/29/84
Type of Sample: Grab
Laboratory Sample #: 8403010590

TEST CONDITIONS

Type of Test: 48 hour static
Test Date: 3/1/84
Test Animal: Daphnia pulex
Test Container: ~~400 ml beaker~~
Test Volume: 200 ml
Test Concentrations: 100, 60, 36, 21, 13, 7.8, 4.7, 2.8, 1.7, 0 (Control)
Replications: 2
Number of Animals
  Per Replicate: 10
Test Animal Age: Early instars
Food Prior to Test: Algae
Feeding Frequency: 5X per week
Test Temperature: 22°±2° C
Photo Period: 16 hours light, 8 hours dark
Dilution Water: Reconstituted
  Hardness: 88 mg/l
  Alkalinity: 58 mg/l
  Specific Conductance: 280 micromhos/cm
  pH: 7.6
Sample: Outfall 001
  Hardness: 328 mg/l
  Alkalinity: 0 mg/l
  Specific Conductance: 1000 micromhos/cm
  pH: 4.5

TEST RESULTS

LC(50) = 32.2% 95% confidence interval 25.4-43.5

EC(50) = <1.7% (Measured effect = animals stuck in surface film)

Analyst: Robert L. Donaghy

Reviewer: HR Peters

WHEELING LABORATORY SECTION

ORIGINAL (Red)

TOXICITY TEST CONDITIONS AND RESULTS

SAMPLE DESCRIPTION

Company Name: Breslube-Penn, Inc.
Permit No.: PAD 980690796 RCRA
Location: Coraopolis, PA
Outfall No.: 001
Sample Date(s): 2/29/84
Type of Sample: Grab
Laboratory Sample #: 8403010590

TEST CONDITIONS

Type of Test: 48 hour static
Test Date: 3/1/84
Test Animal: Fathead minnow (*Pimephales promelas*)
Test Container: 1500 ml beaker
Test Volume: 800 ml
Test Concentrations: 100, 60, 36, 21, 0 (Control)
Replications: 2
Number of Animals
  Per Replicate: 10
Test Animal Age:
Food Prior to Test: Brine shrimp
Feeding Frequency: 2X per day, 5 days per week
Test Temperature: 22°±2° C.
Photo Period: 16 hours light, 8 hours dark
Dilution Water: Reconstituted
  Hardness: 88 mg/l
  Alkalinity: 58 mg/l
  Specific Conductance: 280 micromhos/cm
  pH: 7.6
Sample: Outfall 001
  Hardness: 328 mg/l
  Alkalinity: 0 mg/l
  Specific Conductance: 1000 micromhos/cm
  pH: 4.5

TEST RESULTS

LC(50) = 33.4% 95% confidence interval 26.1-37.7%

Analyst: James H. Green

Reviewer: H R Martin

BRESLUBE-PENN INC
OP UNIT: 00
FOLDER 1.007 - SITE IDENTIFICATION

PA-1066
NPL

BRESLUBE-PENN INC
Section 1e - Correspondence

PA-1066
OP UNIT: 00

BPDR 0017927

Breslube-Penn
(PA-1066)

SHARLOCK, REPCHECK & MAHLER
ATTORNEYS AT LAW
3280 USX TOWER
600 GRANT STREET
PITTSBURGH, PA 15219-2702
(412) 391-6171
FAX (412) 391-8804

JOHN J. REPCHECK
GARY F. SHARLOCK
ALOYSIUS F. MAHLER
DAVID P. HELWIG
CYNTHIA M. HUTCHINS
MICHAEL E. LANG
THERESA HOMISAK
ROBERT D. LEIDIGH
DAVID J. BROSKY

ORIGINAL
RECEIVED
MAY 24 1993
SITE ASSESSMENT
SECTION

May 20, 1993

Kevin Wood (3HW73)
United States Environmental Protection Agency
841 Chestnut Building
Philadelphia, PA 19107

In Re: Montour Road (Old Coketown Road)

Dear Mr. Wood

This is to confirm my telephone conversation with you on May 18, 1993. I represent Harry Snyder, the owner of H. Snyder Steel Corporation. Mr. Snyder owns a place of business which adjoins a "super fund" site along Montour Road in Moon Township, Allegheny County, Pennsylvania. I am enclosing a map which may be of some assistance and your identifying and locating the subject property.

We would appreciate it if your agency would be in a position to notify Moon Township that your department has no objection to Moon Townships continuing its maintenance of the public road that services my clients property.

Yours truly,

Gary F. Sharlock

GFS/nsj

cc: Harry Snyder

no response
-KJWood

mier
lex

CHERRINGTON
ASSOCIATES
300 Corporate Center Drive • Coraopolis, PA 15108

For Information Call
269-0200

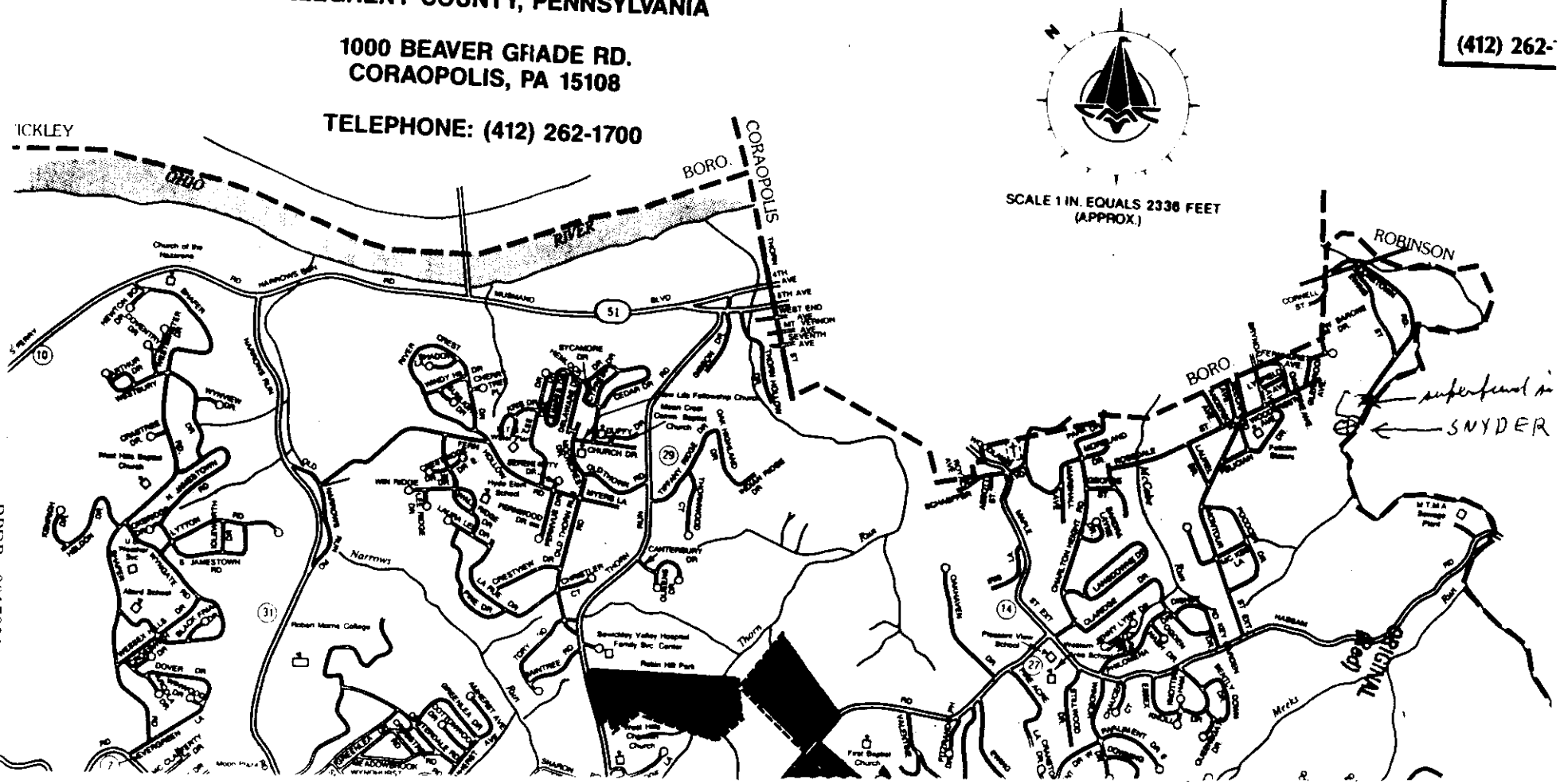
JOS
1004 BR
AU
Complete
(412) 262-

1989
MOON TOWNSHIP

ALLEGHENY COUNTY, PENNSYLVANIA

1000 BEAVER GRADE RD.
CORAOPOLIS, PA 15108

TELEPHONE: (412) 262-1700



BPIDR 0017029

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

ORIGINAL (Red)

OCT 24 1991

David Hess
Department of Environmental Resources
Bureau of Solid Waste Management
7th Floor Fulton Bldg.
P. O. Box 2063
Harrisburg, PA 17120

COPY

Re: Breslube Penn - PA-1066

Dear Mr. Hess:

We are forwarding to you a copy of the final letter report for the above referenced project. If there are any questions concerning this letter please call me at 215-597-8333.

Sincerely,

Lynnette Elser

Lynnette Elser
Site Assessment Section

Enclosure

cc: Jim Shack

ORIGINAL
(Red)

NUS CORPORATION

999 WEST VALLEY ROAD
WAYNE, PENNSYLVANIA 19087
215-687-9510

October 15, 1991
R-585-10-1-4
68-01-7346

Mr. Gregory Ham
U.S. Environmental Protection Agency
841 Chestnut Building
Ninth and Chestnut Streets
Philadelphia, Pennsylvania 19107

Subject: Final Report
TDD No. F3-9102-10
EPA DSN PA-1066
Facility ID No. PAD089667695
Breslube - Penn, Incorporated
Coraopolis, Allegheny County, Pennsylvania

Dear Mr. Ham:

Submitted herewith is the Expanded Site Inspection Report for the Breslube - Penn, Incorporated site located in Coraopolis, Allegheny County, Pennsylvania. Submitted under separate cover, please find the Hazard Ranking System (HRS) package associated with this task.

The site has been used as a waste-oil transfer station since 1986. Breslube - Penn used the plant for fuel-oil processing from January 1983 until 1986, when production ceased because of the company's inability to properly treat its wastewater. Breslube - Penn acquired the property from Wiseman Oil, Incorporated in 1982. Wiseman Oil built the facility during the summer of 1978 and operated it as a fuel-oil recycling plant until its closure in 1982 because of financial difficulties.

NUS FIT 3 conducted a site inspection on October 27, 1988. Two source waste areas from previous site practices were identified: a staged filter cake area and a staged contaminated waste area. Samples were collected from these areas. Several organic and inorganic contaminants were identified in on-site soils, monitoring wells, and home wells.

On July 10, 1990, the FIT conducted a site reconnaissance at the subject site. A contaminated waste/soil pile was identified as a third source waste area. This pile is a combination of waste excavated from the staged filter cake and contaminated waste areas. The pile is not protected by a liner or cover. Because of the pile's unstable condition, its proximity to Montour Run, and the nature of the contaminants associated with the two former source waste areas, this waste pile has a high potential to release contaminants into the environment.

Drinking water within 4 miles of the Breslube - Penn, Incorporated site is supplied by 10 public agencies. Groundwater and surface water sources are utilized. Approximately 1,685 residents within a 4-mile radius rely upon private domestic wells. Two private wells are located on site. One well is used as a potable supply; the other well is used for household plumbing. The nearest known off-site private well is located approximately 1,500 feet east of the site. A total of 33,667 residents rely on groundwater supplied by public water as a potable supply. The nearest municipal well (the Borough of Coraopolis Water Works) is located 1.4 miles northwest of the site. No surface water intakes are located within 15 stream miles downstream of the site.

If you have any further questions, please contact me.

Respectfully submitted,	Reviewed by,	Approved by,
William Wentworth for	William Wentworth	
Janis Hottinger	William Wentworth	Garth Glenn
Project Manager	Assistant Manager	Regional Manager, FIT 3

JH/law

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

ORIGINAL (Red)

AUG 14 1991

Jim Shack
PADER
Highland Building
121 S. Highland Ave
Pittsburgh, PA 15206-3988

Re: Breslube Penn - PA-1066

Dear Mr. Shack:

We are forwarding to you a copy of the final Laboratory report for the above referenced project. If there are any questions concerning this report please call me at 215-597-8333.

Sincerely,

Lynnette Elser

Lynnette Elser
Site Assessment Section

Enclosure

cc: Art Dalla Piazza

ORIGINAL
(Red)

July 31, 1991
R-585-7-1-27
68-01-7346

Mr. Gregory Ham
U.S. Environmental Protection Agency
841 Chestnut Building
Ninth and Chestnut Streets
Philadelphia, Pennsylvania 19107

Subject: Final Report
TDD No. F3-9102-10
EPA DSN PA-1066
Facility ID No. PAD089667695
Breslube-Penn
Coraopolis, Allegheny County, Pennsylvania

Dear Mr. Ham:

Submitted herewith is a laboratory report and data package for the field analytical support program (FASP) volatile organic analysis of soil samples collected at the subject site on April 9 and 10, 1991.

Summary/Scope of Work

Seven solid samples and one trip blank were collected on April 10, 1991 at the subject site and transferred to the FIT 3 mobile laboratory for volatile organic analysis using the headspace screening method utilizing gas chromatography (GC) with a photoionization detector (PID) and an electron capture detector (ECD) in series. The target compounds, which were pre-selected for determination based upon EPA requirements, were 1,1-dichloroethene (1,1-DCE), 1,2-dichloroethene, benzene, toluene, xylenes, chlorobenzene, ethyl benzene, trichloroethene (TCE), and tetrachloroethene (PCE). Other compounds detected in the samples were 4-methyl-2-pentanone, 1,1-dichloroethane, methylene chloride, chloroform, 1,1,1-trichloroethane, total 1,3-dichloropropene, 2-hexanone, and carbon disulfide. All compounds except 1,1-DCE were quantitated using the PID. TCE and PCE were confirmed using the ECD. 1,1-DCE was quantitated using the ECD and confirmed using the PID. All samples were successfully analyzed on a DB-624 megabore capillary column, and most analyte identifications were performed using the narrowest retention time window (RTW) method permitted as described in the Standard Operating Procedures (SOPs) for this method. The third internal standard (IS), 1,3-dibromo-1-propene, was utilized for retention time prediction and as a surrogate to indicate the suppression of the late-eluting compounds such as the target compounds chlorobenzene, ethyl benzene, xylenes, and styrene on the PID and the non-target compounds bromoform and 1,1,2,2-tetrachloroethane on the ECD; it was not utilized for quantitation.

It is important to remember that the headspace method chosen for this site is only a screening method; all quantitation is considered estimated because the method determines only the concentration of contaminants in the soil that will dissolve in water and is dependent on the soil/water partition equilibrium. Therefore, sample results may be much higher than reported for some compounds, particularly for the late-eluting target compounds such as chlorobenzene, ethyl benzene, and xylenes eluting near IS-3.

ORIGINAL
(Red)

Chronological Summary of Events

The FIT 3 mobile laboratory was driven to the site on the evening of April 8, 1991. Shore power was provided at the laboratory site. Upon arrival, the essential equipment was activated.

Early on the morning of April 9, 1991, the GC system was set up, tested, and the split ratio between the PID and ECD was determined according to the requirements specified in the Instrument Operations Manual, SOP II-3. As per SOP III-5, the initial calibration sequence was run and scrutinized, and the headspace method files were updated. The equipment was left on overnight, utilizing shore power.

On April 10, 1991, the required continuing calibration standard and method blank analyses were repeated twice because analysis was begun before the equipment had completely stabilized. The chosen initial continuing calibration standard (410H7 or run seven) was updated, and this calibration was utilized for the quantitation of all results. As soon as the initial continuing calibration standard and method blank were analyzed, the quality control (QC) check standard analysis was performed. It was found that the QC check solution, which was brought to the site by the FIT 3 field personnel, had sustained considerable solvent losses, possibly due to evaporation. Another QC check solution was not available, and an insufficient quantity of the original solution remained to repeat the analysis. Permission was given by the base facility to consider the QC check criteria to be met regardless of the analytical results because there was insufficient standard for re-analysis.

The samples were not brought to the laboratory for analysis until nearly noon. They were analyzed as quickly as the instrumentation allowed. Sampling personnel were given preliminary results verbally as soon as the data were available. Only sample S-16 was found to have significant levels of contamination. A field duplicate of S-16, a matrix spike of S-13, and the trip blank were analyzed during the course of the day. A final continuing calibration standard was analyzed that easily met required QC criteria. The system was shut down; only gas flows and the refrigerator were left on overnight. The mobile laboratory returned to the base facility on April 11, 1991.

Quality Control Summary

During the initial calibration sequence on April 9, 1991, each analyte was analyzed at three different concentration levels. As required by SOP III-5, all 11 target analytes exhibited a relative standard deviation (RSD) in relative response factors (RRFs) of "less than 50 percent of all target compounds quantitated from a particular detector and less than 32 percent RSD for at least 60 percent of the remaining target compounds designated to be quantitated from each detector individually" (section 9.1.5). In fact, all target compounds met the more stringent requirement of less than 32 percent RSD for all targets on both detectors. The continuing calibration also met criteria; a percent difference (PD) between the initial calibration analyses and the continuing calibration analysis run before samples was greater than -60 percent and less than + 150 percent for all target compounds on both detectors; this met the more stringent requirement of greater than -33 percent and less than + 50 percent for 60 percent of the remaining target compounds on each detector. Only PCE slightly exceeded the more rigid requirement of + 50 percent on the PID, which still permits (per SOP III-5) this detector to be used for the quantitation of PCE. 1,1-DCE exceeded the more rigid requirement on the ECD. Quantitation for all target compounds except 1,1-DCE was reported from the PID. TCE and PCE were reported from the PID and confirmed on the ECD. 1,1-DCE was quantitated from the ECD results and confirmed on the PID because the compound co-elutes with acetone on the PID.

The QC check standard was brought to the site by the FIT 3 field personnel and, despite careful packaging and storage on ice, was found to contain very little solution upon arrival at the mobile laboratory. Upon consultation with the base facility, it was decided to analyze the solution but to consider the results as estimated, possibly biased low for early-eluting compounds, due to solute/solvent evaporation. The results for the early-eluting, highly volatile compounds were low, and the percent recoveries for the late-eluting, less volatile compounds were slightly high, as would be the case if solvent evaporation had occurred. In addition, the recoveries of non-target compounds 1,1,2-trichloroethane and 2-hexanone were slightly low.

The percent recovery for several target compounds in the matrix spike analysis was low, probably due to a matrix suppression effect primarily affecting the late-eluting compounds just prior to IS-3. This is evidenced by the generally low recoveries of the third IS for most sample analyses; this effect was not present in method blank or calibration standard analyses. Low spike recoveries are also supported by the good field duplicate precision of sample S-16 despite the low areas for all late-eluting compounds, particularly because the third IS was not recovered at all in the S-16 and S-16 duplicate analyses. The matrix spike analysis was not rerun on site, but it is felt that the analysis typified the sample matrix suppression effect seen in all samples.

Duplicate precision was good for all target compounds and most non-target compounds. The high PD for cis- and trans-dichloropropene can be explained by the co-elution of unknown compounds at or near the retention time for these compounds; these compounds have been found as blank contaminants for the FASP purge-and-trap method on other sites (e.g., Flight Systems). Usually, these contaminants are outside the RTWs for the compounds and thus are not reported.

Only 1,2-dichloropropane was found in the method blanks at concentrations high enough to affect sample results. All sample results except S-16 duplicate and the trip blank were flagged (B) for 1,2-dichloropropane. 1,1-Dichloroethane was also found at a reportable level in the method blank analyses, but it was not high enough to affect any sample results.

The third IS was used only for retention time determination and as a surrogate compound to indicate matrix suppression effects on the late-eluting compounds (those eluting after 2-hexanone on the PID and after bromodichloromethane on the ECD). Generally, low third IS (IS-3) recoveries were observed for all sample analyses; no IS-3 was detectable on either detector for samples S-16 and S-16 field duplicate.

The trip blank was the last analysis before the final continuing calibration standard. The results of this analysis were very unusual, with the first two IS standards eluting very early on the ECD and not at all on the PID. In addition, a large quantity of unresolved compound(s) was detected on both detectors. The trip blank was re-run after the final continuing calibration standard and displayed similar results, but these results were accidentally lost before they were stored by the computer system. However, the results of the re-analysis were precisely the same as the first analysis. No explanation of these unusual results is available.

The FASP purge-and-trap results were compared with the Contract Laboratory Program (CLP) gas chromatographic/mass spectral results; they displayed a good correlation for most compounds. Copies of the CLP Form I results and chromatograms can be found in the support documentation following this report.

ORIGINAL
(Red)

Data Summary Qualifiers

Attachment I is a data summary containing all the headspace analytical results for this project. Laboratory qualifier codes have been added, as defined in the attached glossary of standard Region III EPA data validation qualifier codes. Minimum reporting limits have been listed for each analyte on the data summary form to the right of each compound name.

Several sample results have been flagged (B) for the non-target compound 1,2-dichloropropane because the concentrations detected in these samples were not substantially (five fold) greater than the instrument levels of contaminants detected in blank analyses. Therefore, all sample results except S-16 duplicate and the trip blank were flagged (B). Another non-target compound, 1,1-dichloroethane, was also detected in a method blank analysis but not at a concentration high enough to question any sample results. Only compounds found in blank analyses on the detector used for quantitation were applied to the samples, although the blank result table lists all compounds (by detector) detected in any blank analysis within RT windows and at a concentration greater than 1.0 ug/kg.

Because of the low IS areas for the third internal standard, several results have been flagged (L), biased extremely low, although this IS was not used in sample quantitation. This IS displayed in most samples very low areas compared to the standards and method blanks and so was considered a surrogate compound to predict the matrix suppression effect on other late-eluting target compounds. A large unresolved matrix (possibly containing late-eluting hydrocarbons) eluted after PCE on the ECD for most sample analyses; it also occurred to a lesser extent on the PID. This effect is seen to a small degree in all analyses, but it is most highly pronounced in samples suspected to contain high levels of hydrocarbon contamination. The affected compounds, ethyl benzene, chlorobenzene, and total xylenes, have been flagged (L) in soil samples S-16 and S-16 duplicate; the detection limits for these compounds in other samples may be much higher than reported.

The result for carbon disulfide in soil sample S-15 has been flagged (J), estimated, because this compound was not detected in any other sample in this project and is not an expected target compound; further information would be required to confirm the detection of carbon disulfide in this sample.

All sample results not previously flagged have been flagged (J), estimated, because the headspace screening method is only semi-quantitative because it is dependent on the soil/water partition correlation for each compound in the soil matrix and probably biased low for most compounds. This is inherent in the method. The results for all compounds may be higher than reported for this reason.

Support Data

The support data to this report include a QC summary containing initial and continuing calibration response factor summaries, method blank results, matrix spike results, QC check standard results, relative retention time window determinations for each analysis, GC injection logbook excerpts, and a chain-of-custody form. A second section, entitled "Raw Data," includes each chromatogram, integration report, and external standard QC report separately for each analytical run, arranged in chronological order of analysis.

ORIGINAL
(Red)

The Contract Laboratory Program (CLP) Form I results and chromatograms have been included that correspond to FASP samples S-12, S-13, S-16, S-16 duplicate, and S-Back for comparison.

If you have any further questions, please contact me.

Respectfully submitted,

Deborah Kilmartin
Chemist

Reviewed by,

Roy Cohen
Chemist

Approved by,

Garth Glenn
Regional Manager, FIT 3

DK/sjm

SAMPLE DATA SUMMARY CASE NUMBER 910540

1) F3-9102-10	7)	410H10	7)	410H11	7)	410H12	7)	410H13
2) PA-1066	8)	S-15	8)	S-BACK	8)	S-16	8)	S-13
3) BRESLUBE-PENN	9)	solid	9)	solid	9)	solid	9)	solid
4) PA-42	10)		10)		10)		10)	
5) VOLATILES ONLY	11)	3.45	11)	1.82	11)	2.39	11)	2.95
6) FIT 3 FASP LABORATORY	12)	8.7 g	12)	16.47 g	12)	12.53 g	12)	10.16 g
	13)		13)		13)		13)	
	14)	100	14)	100	14)	100	14)	100
	15)	ug/kg	15)	ug/kg	15)	ug/kg	15)	ug/kg

TARGET COMPOUNDS DETECTED	DETECTION LIMIT	SAMPLE RESULTS	SAMPLE RESULTS	SAMPLE RESULTS	SAMPLE RESULTS
1,1-dichloroethene	10			870.00 J	
total 1,2 dichloroethene	10			2300.00 J	
benzene	10			1100.00 J	
toluene	10			1400.00 J	
total xylenes	10			210.00 L	
chlorobenzene	10			14.00 L	
ethyl benzene	10			39.00 L	
trichloroethene	10			790.00 J	
tetrachloroethene	10			70.00 J	

NON-TARGET COMPOUNDS DETECTED	DETECTION LIMIT	SAMPLE RESULTS	SAMPLE RESULTS	SAMPLE RESULTS	SAMPLE RESULTS
4-methyl-2-pentanone	40			2300.00 J	
1,1-dichloroethane	50			840.00 J	
methylene chloride	50			2480.00 J	
chloroform	10			85.00 J	
1,1,1-trichloroethane	10			110.00 J	
total 1,3-dichloropropene	20			720.00 J	
2-hexanone	40			320.00 J	
carbon disulfide	40	230.00 J			
1,2-dichloropropane	40	1900.00 B	500.00 B	2200.00 B	1000.00 B

KEY:
1) TDD No.
2) EPA No.
3) Site Name
4) State/County Code
5) Organic/Inorganic
6) Lab Name
7) Traffic Rept.#
8) Sample Identi.
9) Phase
10) Concentration
11) Dilution Factor
12) Sample Weight
13) Field Measurements
14) Percent of Phase
15) Units

ORIGINAL (Red)

SAMPLE DATA SUMMARY - CASE NUMBER 910546

1) F3-9102-10	7)	410H14	7)	410H17	7)	410H18	7)	410H22
2) PA-1066	8)	S-16D	8)	S-12	8)	S-14	8)	trip blank
3) BRESLUBE-PENN	9)	solid	9)	solid	9)	solid	9)	water
4) PA-42	10)		10)		10)		10)	
5) VOLATILES ONLY	11)	1.85	11)	2.00	11)	2.94	11)	2.94
6) FIT 3 FASP LABORATORY	12)	16.22 g	12)	15.02 g	12)	10.19 g	12)	5.0 ml
	13)		13)		13)		13)	
	14)	100	14)	100	14)	100	14)	100
	15)	ug/kg	15)	ug/kg	15)	ug/kg	15)	ug/kg

TARGET COMPOUNDS DETECTED	DETECTION LIMIT	SAMPLE RESULTS		SAMPLE RESULTS		SAMPLE RESULTS		SAMPLE RESULTS	
1,1-dichloroethene	10	1100.00	J						
total 1,2-dichloroethene	10	2100.00	J						
benzene	10	910.00	J						
toluene	10	1000.00	J						
total xylenes	10	180.00	L						
chlorobenzene	10	11.00	L						
ethyl benzene	10	33.00	L						
trichloroethene	10	760.00	J						
tetrachloroethene	10	61.00	J						

NON-TARGET COMPOUNDS DETECTED	DETECTION LIMIT	SAMPLE RESULTS		SAMPLE RESULTS		SAMPLE RESULTS		SAMPLE RESULTS	
4-methyl-2-pentanone	40	2000.00	J						
1,1-dichloroethane	50	690.00	J						
methylene chloride	50	2100.00	J						
chloroform	10	63.00	J						
1,1,1-trichloroethane	10	93.00	J						
total 1,3-dichloropropene	20	140.00	J						
2-hexanone	40	250.00	J						
carbon disulfide	40								
1,2-dichloropropane	40			530.00	B	870.00	B		

KEY:
1) TDD No.
2) EPA No.
3) Site Name
4) State/County Code
5) Organic/Inorganic
6) Lab Name
7) Traffic Rept.#
8) Sample Identi.
9) Phase
10) Concentration
11) Dilution Factor
12) Sample Weight
13) Field Measurements
14) Percent of Phase
15) Units

ORIGINAL (Red)

(Red)

Initial Calibration Summary

for 4/9/91

(in field)

BPDR 0017942

ORIGINAL
(Red)

INITIAL CALIBRATION SUMMARY
INTERNAL STANDARD METHOD

Method file: c:\NELSON\capinh.MET
Last updated: 04-12-1991 09:19:27 version: ~~106~~ 115 7/12/91
Date of initial calibration: 4/9/91
GC column: db-624
Project: BRESLUBE-PENN

Calib.Level #:	1		2		3		4				
Datafile Name:	E:C409H9		E:C409H12		E:C409H6		E:409H7				
Compound Name\	Conc. ppb	RRF	Conc. ppb	RRF	Conc. ppb	RRF	Conc. ppb	RRF	Mean RRF	% RSD	1/mean RRF
11DCE/acet	0.0	0.00000	20.0	0.39102	80.0	0.42046	300.0	0.32397	0.37848	13.1	2.6421
CS2	100.0	0.32471	300.0	0.32153	900.0	0.33968	0.0	0.00000	0.32864	2.9	3.0428
MeCl2	100.0	0.00814	300.0	0.01171	900.0	0.01074	0.0	0.00000	0.01020	18.1	98.0441
t12DCEe	0.0	0.00000	20.0	0.49164	80.0	0.74225	300.0	0.71469	0.64953	21.2	1.5396
2-[illegible]none	100.0	0.09423	300.0	0.08894	900.0	0.08596	0.0	0.00000	0.08971	4.7	11.1473
cl[illegible] VAc	0.0	0.00000	20.0	0.90290	80.0	0.77462	300.0	0.59709	0.75821	20.3	1.3189
benzene	0.0	0.00000	20.0	1.21482	80.0	1.50425	300.0	1.67377	1.46428	15.8	0.6829
TCE	0.0	0.00000	20.0	2.45983	80.0	4.05494	300.0	4.37299	3.62925	28.2	0.2755
c13DCP	0.0	0.00000	20.0	0.64902	80.0	0.31712	300.0	0.28747	0.41787	48.0	2.3931
4me2pent	100.0	0.24064	300.0	0.19737	900.0	0.19126	0.0	0.00000	0.20976	12.8	4.7675
toluene	0.0	0.00000	20.0	4.54923	80.0	5.72437	300.0	4.82293	5.03217	12.2	0.1987
t13DCP	0.0	0.00000	20.0	0.34131	80.0	0.43586	300.0	0.41066	0.39594	12.4	2.5256
PCE/p	0.0	0.00000	20.0	2.52278	80.0	4.87352	300.0	4.24965	3.88199	31.4	0.2576
2-hexanone	100.0	0.12211	300.0	0.15360	900.0	0.13757	0.0	0.00000	0.13776	11.4	7.2590
cl-benzene	0.0	0.00000	20.0	2.90954	80.0	3.88068	300.0	3.62775	3.47266	14.5	0.2880
eth-benzene	0.0	0.00000	20.0	4.80007	80.0	7.05197	300.0	6.02542	5.95915	18.9	0.1678
p&[illegible]ene	0.0	0.00000	40.0	5.92006	160.0	8.79068	600.0	7.44483	7.38519	19.4	0.1354
ox[illegible]yrene	0.0	0.00000	40.0	5.08969	160.0	5.71905	600.0	5.17996	5.32957	6.4	0.1876
IS-3/pid	100.0	2.54814	100.0	1.73635	100.0	1.94378	100.0	2.53365	2.19048	18.9	0.4565
IS3#2	100.0	1.39787	100.0	1.06398	100.0	1.08308	100.0	0.98946	1.13360	15.9	0.8821

INITIAL CALIBRATION SUMMARY
INTERNAL STANDARD METHOD

ORIGINAL (Red)

Method file: c:\NELSON\dapinh.MET
Last updated: 04-14-1991 11:05:12 version: 111
Date of initial calibration: 4/9/91
GC column: db-624
Project: Bresslube Penn

Calib.Level #:	1		2		3		4				
Datafile Name:	e:d409h9		e:d409h12		e:d409h6		e:d409h7				
Compound Name\	Conc. ppb	RRF	Conc. ppb	RRF	Conc. ppb	RRF	Conc. ppb	RRF	Mean RRF	% RSD	1/mean RRF
11DCEe/e	0.0	0.00000	20.0	0.05319	80.0	0.08569	300.0	0.06963	0.06950	23.4	14.3875
MeCl2	100.0	0.00762	300.0	0.00974	900.0	0.00890	0.0	0.00000	0.00875	12.2	114.2404
11DCEa	100.0	0.00677	300.0	0.00648	900.0	0.00387	0.0	0.00000	0.00571	27.9	175.1650
CHCl3	0.0	0.00000	20.0	2.28866	80.0	2.24841	300.0	2.12983	2.22230	3.7	0.4500
111TCEa	0.0	0.00000	20.0	9.22675	80.0	13.03154	300.0	13.93807	12.06545	20.7	0.0829
CC[illegible]	0.0	0.00000	2.0	37.59612	8.0	69.81586	30.0	85.50528	64.30575	38.0	0.0156
12DCEa	100.0	0.00358	300.0	0.00366	900.0	0.00392	0.0	0.00000	0.00372	4.8	269.0523
TCE/ecd	0.0	0.00000	20.0	16.40622	80.0	14.48058	300.0	15.11491	15.33390	6.4	0.0652
12DCPa	100.0	0.15919	300.0	0.06119	900.0	0.04882	0.0	0.00000	0.08973	67.4	11.1442
BrCl2methane	0.0	0.00000	4.0	40.38249	16.0	38.89580	60.0	40.81672	40.03167	2.5	0.0250
c13DCPe	0.0	0.00000	20.0	0.86795	80.0	1.02519	300.0	0.85822	0.91712	10.2	1.0904
112TCEa	0.0	0.00000	20.0	0.00000	80.0	0.24126	300.0	0.22417	0.23271	5.2	4.2971
PCE/ecd	0.0	0.00000	20.0	81.91590	80.0	107.43410	300.0	85.07193	91.47398	15.2	0.0109
Br2Clmethane	0.0	0.00000	4.0	17.86483	16.0	21.50745	60.0	17.72574	19.03267	11.3	0.0525
CHBr3	0.0	0.00000	20.0	4.05053	80.0	2.11429	300.0	3.81510	3.32664	31.8	0.3006
IS3/ecd	100.0	20.[illegible]3060	100.0	22.79412	100.0	15.28102	100.0	13.75993	18.06642	23.5	0.0554
1122PCEa	0.0	0.00000	20.0	1.58846	80.0	1.54934	300.0	1.10767	1.41516	18.9	0.7066
IS[illegible]	100.0	6.16218	100.0	7.06199	100.0	4.45249	100.0	3.97714	5.41345	26.7	0.1847

Continuing Calibration Summary

BPDR 0017945

ORIGINAL
(Red)

CONTINUING CALIBRATION SUMMARY
INTERNAL STANDARD METHOD

Initial Calib.Method file: [illegible]
Initial Calib.Last updated: [illegible] version: 11[illegible]
Date of initial calibration: [illegible]/91
Init.Cal. File Names: [illegible]
Contin. Calib.Method file: [illegible]
Continuing Cal.Last Updated: [illegible] version: 14[illegible]
Continuing Cal. File Name: [illegible]
Date of Continuing Calibration: [illegible] 10:42 AM
GC column: [illegible]
Project: [illegible]

Compound Name	Initial Calibration Average RRF	Continuing Calibration RRF	Percent Difference in RRF	Continuing Calibration Conc. ppb
1DCE/acet	0.378480	0.46[illegible]07	22.5	40.0
CH2	0.328640	0.624071	89.9	400.0
12	0.010199	0.008700	-14.7	400.0
t12DCEe	0.649529	0.674648	3.9	40.0
2-butanone	0.089705	0.147018	63.9	400.0
c12DCE/VAc	0.758205	0.862590	13.8	40.0
benzene	1.464278	1.429512	-2.4	40.0
TCE	3.629250	4.338039	19.5	40.0
c13DCP	0.417872	0.211116	-49.5	40.0
4me2xent	0.209736	0.361396	72.3	400.0
toluene	5.032173	5.927123	17.8	40.0
t13DCP	0.395943	0.302189	-23.7	40.0
PCE/p	3.881956	5.873147	51.3	40.0
2-hexanone	0.137760	0.370808	169.2	400.0
benzene	3.472658	3.674540	5.8	40.0
cth-benzene	5.959152	7.507409	26.0	40.0
p&mxylene	7.385186	9.158613	24.0	80.0
oxyl styrene	5.329567	6.590749	23.7	80.0
2B-3/pid	2.190482	2.432912	11.1	100.0
2B3#2	1.133596	1.486186	31.1	100.0

ORIGINAL (Red)

[illegible] AUTOMATIC CALIBRATION REPORT

Sample Name: cont cal #3
Operator: dek Date [illegible]
Date: 07-15-1991 Time: [illegible]
[illegible]: 16 [illegible]
[illegible]: C:CAPCCH [illegible]
[illegible]: 0 [illegible]
[illegible] Date: 07-15-1991 Time: 13:[illegible]
[illegible]

[illegible]
[illegible] One sample per .6 sec.
[illegible] Std. Amt. Injected: 1.0[illegible]

INTERNAL STANDARD CALIBRATION

[illegible] NUM	NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD AREA	MEASURED AREA	NEW AREA
1	[illegible]	3.36	3.36	3.36	4612	4577	4577
2	CS2	3.63	3.63	3.63	64535	61612	61612
3	MeCl2	4.01	4.01	4.01	859	859	859
4	[illegible]	4.46	4.46	4.46	6661	6661	6661
5	2-butanone	5.25	5.25	5.25	14515	14515	14515
6	c12DCE/CAc	6.11	6.11	6.11	8444	8516	8516
7	IS-1/pent	6.47	6.47	6.47	24681	24681	24681
8	benzene	7.57	7.57	7.57	14113	14113	14113
9	TCE	8.61	8.61	8.61	14467	14467	14467
10	IS-2/pent	9.13	9.13	9.13	8337	8337	8337
11	c13DCP	10.03	10.03	10.03	704	704	704
12	4me2pent	10.29	10.29	10.29	12052	12052	12052
13	toluene	10.52	10.52	10.52	19819	19766	19766
14	t13DCP	10.86	10.86	10.86	1008	1008	1008
15	PCE	11.33	11.33	11.33	19508	19586	19586
16	2-hexanone	11.51	11.51	11.51	12366	12366	12366
17	cl-benzene	12.53	12.53	12.53	17826	12254	12254
18	eth-benzene	12.70	12.70	12.70	29521	25036	25036
19	m&p-xylene	12.88	12.88	12.88	74987	61083	61083
20	oxyl/styrene	13.44	13.44	13.44	43985	43985	43985
21	IS-3/pent	14.04	14.04	14.04	20283	20283	20283
22	IS3#2	14.66	14.66	14.66	12390	12390	12390

All peaks were found.
Method C:CAPCCH updated on disk. 07-15-1991 13:33:18 version: 142

ORIGINAL (Red)

[illegible]

[illegible]tial Calib.Method [illegible]
[illegible]tial Calib.Last upd[illegible]
[illegible] of initial calibr[illegible]
[illegible] Cal. File Names: [illegible]
[illegible] Calib.Method [illegible]
[illegible]

[illegible]	[illegible]	Continuing Calibration RRF	Percent Difference in RRF	Continuing Calibration Conc. [illegible]
[illegible]	[illegible]	[illegible]	70.8	40.0
[illegible]	[illegible]	[illegible]	23.2	[illegible]
[illegible]	[illegible]	[illegible]	29.5	400.0
[illegible]	[illegible]	[illegible]	24.0	[illegible]
[illegible]	[illegible]	17.062780	41.4	40.0
[illegible]	64.[illegible]	96.590870	50.0	4.0
[illegible]	[illegible]	0.027400	124.6	400.0
[illegible]	14.[illegible]	15.[illegible]7440	7.7	40.0
[illegible]	[illegible]	[illegible]	-15.5	400.0
[illegible]	38.[illegible]	33.313520	-13.2	8.0
[illegible]	[illegible]	0.79[illegible]194	11.1	40.0
[illegible]	[illegible]	0.95[illegible]91	273.4	40.0
[illegible]	[illegible]	115.755100	13.5	40.0
[illegible]	4[illegible]790	1[illegible].048390	-74.4	8.0
[illegible]	[illegible].162867	12.212380	286.1	40.0
[illegible]	17.[illegible]5180	13.274250	-25.7	100.0
[illegible]	1.785462	1.872897	4.9	40.0
[illegible]	5.197349	3.494845	-32.8	100.0

ORIGINAL
(Red)

[illegible] ** AUTOMATIC CALIBRATION [illegible] **

[illegible]: cont cal #3
[illegible]: RC Date [illegible]
[illegible]: 07-15-1991
[illegible]: 16
[illegible]: C:DAPCCH
[illegible]
[illegible] 15-1991 Time: [illegible]
[illegible]

[illegible]
[illegible] 0.00 One sample per [illegible] sec.
[illegible] 1.00 Std. Amt. Injected: [illegible]

INTERNAL STANDARD CALIBRATION

[illegible]	[illegible]	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD AREA	MEASURED AREA	NEW AREA
[illegible]	[illegible]	3.59	3.64	3.64	4423	4340	4340
[illegible]	[illegible]	4.25	4.31	4.31	4425	3942	3942
[illegible]	[illegible]	[illegible]	5.41	5.41	3897	4416	4416
[illegible]	[illegible]	6.71	6.78	6.78	102666	91382	91382
[illegible]	[illegible]	6.89	6.95	6.95	107104	100761	100761
[illegible]	[illegible]	[illegible]	7.23	7.23	678885	623696	623696
[illegible]	[illegible]	7.44	7.51	7.51	383879	353069	353069
[illegible]	[illegible]	7.80	7.87	7.87	22329	10015	10015
[illegible]	[illegible]	8.83	8.90	8.90	189318	173435	173435
[illegible]	[illegible]	9.35	9.42	9.42	7089	8033	8033
[illegible]	[illegible]	9.59	9.66	9.66	79324	73148	73148
[illegible]	[illegible]	10.27	10.34	10.34	12043	8686	8686
[illegible]	[illegible]	11.19	11.26	11.26	29802	27447	27447
[illegible]	[illegible]	11.38	11.45	11.45	2510	10467	10467
[illegible]	[illegible]	11.35	11.62	11.62	1456098	1270838	1270838
[illegible]	[illegible]	11.90	11.97	11.97	50949	24259	24259
[illegible]	[illegible]	13.93	14.02	14.02	21518	134076	134076
[illegible]	[illegible]	14.30	14.39	14.39	422897	364334	364334
[illegible]	[illegible]	14.65	14.75	14.75	27118	20562	20562
[illegible]	[illegible]	14.97	15.06	15.06	114254	95922	95922

All [illegible] were found.
[illegible] C:DAPCCH updated on disk, 07-15-1991 13:41:55 version: 91

ORIGINAL
(Red)

[illegible] AUTOMATIC CALIBRATION [illegible]

Sample Name: [illegible] cal #[illegible]
Operator: dek Date Taken: [illegible]
Date: 07-24-1991 Time: [illegible]
[illegible]: 16 Cycle: [illegible]
[illegible]: C:CAPISH [illegible]: 0
[illegible]: 0 [illegible]
[illegible] Date: 07-24-1991 Time: [illegible]
[illegible] averages:
[illegible]
[illegible] 1.00
[illegible] 1.00 One sample per .6 sec.
[illegible] 1.00 Std. Amt. Injected: 1.00

EXTERNAL STANDARD CALIBRATION

[illegible]	NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD AREA	MEASURED AREA	NEW AREA
1	[illegible]	6.47	6.47	6.47	24681	24681	24681
2	[illegible]	9.13	9.13	9.13	8337	8337	8337
3	[illegible]	14.04	14.04	14.04	20283	20283	20283
4	[illegible]	14.66	14.66	14.66	12390	12390	12390

All peaks were found.

Method C:CAPISH created on disk. 07-24-1991 11:09:07 version: 93

ORIGINAL (Red)

********** AUTOMATIC CALIBRATION UPDATE **********

Sample Name: cont cal #3
Operator: RC Date Taken: 04-10-1991 10:42:03
Date: 06-17-1991 Time: 10:11:04
Interface: 16 Cycle: 7
Method: C:DAPISH Channel: 1
Vial: 0 Level: 1
Today's Date: 06-17-1991 Time: 10:11:04
1 Area table file used in average:
8:34.0H7
Start delay: 0.00
Area reject: 0.00 One sample per .5 sec.
Amount injected: 1.00 Std. Amt. Injected: 1.00

EXTERNAL STANDARD CALIBRATION

COMP NUM	NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET TIME	OLD AREA	MEASURED AREA	NEW AREA
1	IS#1/acq	6.78	6.78	6.78	91382	91382	91382
2	IS#2/acq	11.26	11.26	11.26	27447	27447	27447
	IS3/acq	14.39	14.39	14.39	364334	364334	364334
4	IS3#2	15.06	15.06	15.06	95922	95922	95922

All peaks were found.
Method C:DAPISH updated on disk. 06-17-1991 10:11:22 version: 80

CONTINUING CALIBRATION SUMMARY
INTERNAL STANDARD METHOD

ORIGINAL (Red)

Initial Calib.Method file: c:\NELSON\CAPINH.MET
Initial Calib.Last updated: 06-17-1991 10:47:24 version: 115
Date of initial calibration: 4/5/91
Init.Cal. File Names: C409H9 C409H12 C409H6 C409H7
Contin. Calib.Method file: c:\NELSON\CAPSCH.MET
Continuing Cal.Last Updated: 07-12-1991 11:47:05 version: 137
Continuing Cal. File Name: A:C410H21
Date of Continuing Calibration: 4/10/91
GC column: DB-624
Project: BRESLUBE-PENN

Compound Name	Initial Calibration Average RRF	Continuing Calibration RRF	Percent Difference in RRF	Continuing Calibration Conc. ppb
11DCE/acet	0.378480	0.393260	3.9	40.0
CT2	0.328640	0.371480	13.0	400.0
MeCl2	0.010149	0.008399	-17.7	400.0
t12DCEe	0.649529	0.654934	0.8	40.0
2-butanone	0.089708	0.064190	-28.4	400.0
c12DCE/VAc	0.758205	0.602248	-20.6	40.0
benzene	1.464278	1.409385	-3.7	40.0
TCE	3.629353	4.110989	13.3	40.0
c13DCP	0.417872	0.197315	-52.8	40.0
4me2pent	0.209756	0.151134	-27.9	400.0
toluene	5.032173	6.231187	23.8	40.0
t13DCP	0.395943	0.310991	-21.5	40.0
PCE/p	3.881986	5.882564	51.5	40.0
2-hexanone	0.137760	0.156406	13.5	400.0
c1-benzene	3.472658	3.806856	9.6	40.0
c2m-benzene	5.959152	8.368070	40.4	40.0
o&mxylene	7.385186	10.399720	40.8	80.0
cmyl/styrene	5.329567	5.881992	10.4	80.0
1B-3/sid	**2.190482**	1.846006	-15.7	100.0
TB3#2	**1.133596**	1.270253	12.1	100.0

********** AUTOMATIC CALIBRATION UPDATE **********

ORIGINAL
(Red)

Sample Name: CONT CAL #5
Operator: dek Date Taken: 04-10-1991 17:37:50
Date: 07-12-1991 Time: 11:46:48
Interface: 16 Cycle: 21
Method: C:CAPCCH Channel: 0
Vial: 0 Level 1
Display Date: 07-12-1991 Time: 11:46:48
Stored table file used in average:
[illegible]
Start delay: 0.00
Area reject: 0.00 One sample per .6 sec.
Amount injected: 1.00 Std. Amt. Injected: 1.00

INTERNAL STANDARD CALIBRATION

COMP NUM	NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD AREA	MEASURED AREA	NEW AREA
1	11DCE/acet	3.33	3.32	3.32	4744	4094	4094
2	CS2	3.61	3.60	3.60	33014	38671	38671
3	MeCl2	3.98	3.98	3.98	781	874	874
4	t12DCEs	4.43	4.42	4.42	7208	6818	6818
5	2-butanone	5.20	5.21	5.21	7021	6682	6682
6	c12DCE/VAc	6.06	6.04	6.04	7262	6269	6269
7	IS-1/pid	6.42	6.42	6.42	25682	26025	26025
8	benzene	7.53	7.51	7.51	15354	14672	14672
9	TCE	8.57	8.56	8.56	16197	14712	14712
10	IS-2/pid	9.09	9.08	9.08	9286	8947	8947
11	c13DCP	9.99	9.98	9.98	826	706	706
12	4me2pent	10.24	10.24	10.24	6256	5409	5409
13	toluene	10.48	10.47	10.47	23731	22300	22300
14	t13DCP	10.82	10.81	10.81	1066	1113	1113
15	PCE/p	11.28	11.27	11.27	23141	21052	21052
16	2-hexanone	11.47	11.47	11.47	7573	5597	5597
17	cl-benzene	12.49	12.48	12.48	14451	13624	13624
18	eth-benzene	12.66	12.65	12.65	31471	29947	29947
19	p&mxylene	12.83	12.82	12.82	79446	74436	74436
20	oxyl/styrene	13.39	13.38	13.38	46451	42100	42100
21	IS-3/pid	14.00	13.99	13.99	15009	16516	16516
22	IS3#2	14.62	14.61	14.61	13144	11365	11365

All peaks were found.
Method C:CAPCCH updated on disk. 07-12-1991 11:47:05 version: 137

ORIGINAL (Red)

CONTINUING CALIBRATION SUMMARY
INTERNAL STANDARD METHOD

Initial Calib.Method file: [illegible].MET
Initial Calib.Last updated: [illegible] version: [illegible]
Date of initial calibration: [illegible]
Init.Cal. File Names: D40[illegible] D40[illegible] D40[illegible] D40[illegible]
Contin. Calib.Method file: [illegible].MET
Continuing Cal.Last Updated: [illegible] 11:44:24 version: [illegible]
Continuing Cal. File Name: [illegible]
Date of Continuing Calibration: [illegible]
GC column: DB-624
Project: BREGLUBE-PENN

Compound Name	Initial Calibration Average RRF	Continuing Calibration RRF	Percent Difference in RRF	Continuing Calibration Conc. ppb
[illegible]	0.069505	0.107701	55.0	40.0
[illegible]	0.009753	0.010775	23.1	400.0
[illegible]	0.009309	0.009490	1.9	400.0
[illegible]	2.222302	2.608074	17.4	40.0
111TCEa	12.065460	16.531440	37.0	40.0
[illegible]	64.397100	93.477740	45.2	4.0
12DCEa	0.012200	0.054373	345.7	400.0
TCE/ecd	14.664520	15.881540	8.3	40.0
12DCPa	0.086554	0.059471	-31.3	400.0
BrCl2methane	38.384030	33.271390	-13.3	8.0
[illegible]	0.712425	1.010290	41.8	40.0
[illegible]	0.255312	0.210522	-17.5	40.0
PCE/ecd	102.007000	122.149300	19.7	40.0
BrCl2methane	43.206790	21.369940	-50.5	8.0
CHBr3	3.162367	1.805120	-42.9	40.0
[illegible]/ecd	17.855180	14.190420	-20.5	100.0
[illegible]PCEa	1.785462	2.274884	27.4	40.0
IS3#2	5.197349	3.833820	-26.2	100.0

ORIGINAL
(Red)

Sample Name: CONT CAL #5
Operator: RC
Date: 07-12-1991
Interface: 16
Method: C:DAPCCH
Vial: 0

Date Taken: [illegible] 17:37:30
Time: [illegible]
Cycle: [illegible]
Chart: 1
Level: [illegible]

Method Date: 07-12-1991 Time: 11:44:24
[illegible]

Sample Weight: [illegible]
Amount Injected: [illegible] One sample per [illegible] secs.
Dilution Factor: 1.00 Std. Amt. Int Std: 1.00

INTERNAL STANDARD CALIBRATION

ICMP NUM	NAME	OLD RET TIME	MEASURED RET.TIME	NEW RET.TIME	OLD AREA	MEASURED AREA	NEW AREA
1	1,DCDE-E	3.60	3.59	3.59	4767	4423	4427
2	MeCl2	4.26	4.25	4.25	3696	4425	4425
3	11DCEa	5.37	5.37	5.33	5554	3897	3897
4	IS#1/ecd	6.72	6.71	6.71	100132	102666	102666
5	CHCl3	6.83	6.88	6.98	111777	107104	107104
6	111TCEa	7.17	7.16	7.16	692354	678885	678885
7	CCl4	7.45	7.44	7.44	414900	383879	383879
8	12DCEa	7.81	7.80	7.80	24848	22329	22329
9	TCE/ecd	8.84	8.83	8.83	206407	189318	189318
10	12DCPa	9.36	9.35	9.35	9200	7089	7089
11	BrCl2methane	9.60	9.59	9.59	88348	79324	79324
12	123DCPe	10.28	10.27	10.27	20909	12043	12043
13	IS#2/ecd	11.20	11.19	11.19	29740	29802	29802
14	1,1,2TCEa	11.36	11.35	11.35	2643	2510	2510
15	PCE/ecd	11.56	11.55	11.55	1589018	1456098	1456098
16	BrCl2methane	11.91	11.90	11.90	52322	50949	50949
17	CHBr3	13.95	13.93	13.93	34191	21518	21518
18	1,3/ecd	14.32	14.30	14.30	463674	422897	422897
[illegible]	112BrCEa	14.68	14.65	14.65	27410	27118	27118
[illegible]	IS#3	15.00	14.97	14.97	138383	114254	114254

All peaks were found.
Method C:DAPCCH updated on disk. 07-12-1991 11:44:24 version: 90

[illegible] INTERNAL STANDARD METHOD

ORIGINAL (Red)

Initial Calib.Method fi[illegible]
[illegible]tial Calib.Last updated: [illegible] Version: [illegible]
Date of initial calibration: [illegible]
[illegible].Cal. File Names: [illegible]
[illegible] Calib.Method fi[illegible]
[illegible]ing Cal.Last Updated: [illegible] Version: 139
[illegible] Cal. File Name: [illegible]
[illegible] Calibration: [illegible]
[illegible]
Project: [illegible]

[illegible]	Initial Calibration Average RRF	Continuing Calibration RRF	Percent Difference in RRF	Continuing Calibration Conc. ppb
[illegible]	0.[illegible]78480	0.52[illegible]985	39.[illegible]	40.0
[illegible]	0.[illegible]28640	0.400[illegible]	22.0	400.0
[illegible]	[illegible]	0.[illegible]	-19.6	400.0
[illegible]	0.[illegible]49529	0.720892	11.0	40.0
[illegible]	0.089708	0.06[illegible]473	-23.7	400.0
[illegible]	0.758205	0.809142	6.7	40.0
[illegible]zene	1.[illegible]64278	1.602048	9.4	40.0
[illegible]	[illegible].629253	4.547063	25.3	40.0
[illegible]	0.417872	0.219[illegible]08	-47.5	40.0
[illegible]	0.209756	0.192569	-8.2	400.0
[illegible]zene	5.032173	6.834196	35.8	40.0
[illegible]	0.395[illegible]43	0.409066	3.3	40.0
[illegible]	3.881936	6.308464	62.5	40.0
[illegible]	0.137760	0.080808	-41.3	400.0
[illegible]zene	3.472658	4.675571	34.6	40.0
[illegible]zene	5.959152	9.629454	61.6	40.0
[illegible]ne	7.385186	11.998570	62.5	80.0
[illegible]ne	5.329567	7.792068	46.2	80.0
[illegible]	2.190482	1.442057	-34.2	100.0
[illegible]	1.133596	1.581955	39.6	100.0

ORIGINAL
(Red)

Sample Name: [illegible]
Operator: [illegible]
Date: 07-12-1991
Instrument: 16
Method: C:CAPCCH
Vial: 0

Date Taken: [illegible] 10-[illegible] 13:[illegible]:[illegible]
[illegible]: [illegible]
[illegible]: [illegible]
[illegible]: [illegible]
[illegible]: [illegible]

Run to Date: 07-12-1991 Time: [illegible]
[illegible] file used in average:
[illegible]

[illegible] 1.00
[illegible] 0.20 Size sample per [illegible]
[illegible] 1.00 Std [illegible] Injected: 1.00

INTERNAL STANDARD CALIBRATION

Int. Std.	NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD AREA	MEASURED AREA	NEW AREA
1	[illegible]	[illegible]	[illegible]	[illegible]	4744	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	33014	23297	23297
3	[illegible]	[illegible]	[illegible]	[illegible]	791	579	579
	[illegible]	[illegible]	[illegible]	[illegible]	7208	5088	5088
4	[illegible]	[illegible]	[illegible]	[illegible]	7021	4833	4833
5	[illegible]	[illegible]	[illegible]	[illegible]	7262	5711	5711
6	[illegible]	[illegible]	[illegible]	[illegible]	25682	17645	17645
7	[illegible]	[illegible]	[illegible]	[illegible]	15354	11307	11307
8	benzene	[illegible]	[illegible]	[illegible]	16197	12232	12232
9	TCE	[illegible]	[illegible]	[illegible]	[illegible]	6725	6725
10	[illegible]	[illegible]	[illegible]	[illegible]	825	590	590
11	[illegible]	[illegible]	[illegible]	[illegible]	6256	5180	5180
12	[illegible]	[illegible]	[illegible]	[illegible]	23731	18385	18385
13	toluene	[illegible]	[illegible]	[illegible]	1066	1100	1100
14	[illegible]	[illegible]	[illegible]	[illegible]	23141	16970	16970
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2174	2174
16	2-hexanone	[illegible]	[illegible]	[illegible]	[illegible]	12579	12579
17	[illegible]	[illegible]	[illegible]	[illegible]	14451	25904	25904
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	64555	64555
19	[illegible]	[illegible]	[illegible]	[illegible]	46451	41923	41923
	[illegible]	[illegible]	[illegible]	[illegible]	15009	9698	9698
21	[illegible]	14.00	13.93	13.93	13144	10639	10639
22	[illegible]	14.62	14.55	14.55			

All peaks were found.
Method C:CAPCCH updated on disk. 07-12-1991 12:39:37 Version: 139

BPDR 0017957

ORIGINAL
(Red)

[illegible] CALIBRATION SUMMARY
INTERNAL STANDARD METHOD

[illegible]tial Calib.Method fi[illegible]
[illegible]ial Calib.Last updat[illegible]
[illegible] of initial calibration [illegible]
[illegible] File Names: [illegible]
[illegible] Calib.Method fi[illegible]
[illegible]
[illegible] File Name: [illegible]
[illegible] Calibration [illegible]
[illegible] 05-[illegible]
[illegible]

[illegible]	Initial Calibration Average PRF	Continuing Calibration PRF	Percent Difference in PRF	Continuing Calibration Conc. [illegible]
[illegible]	[illegible]	0.117974	69.7	40.0
[illegible]	[illegible]	[illegible]	11.[illegible]	400.0
[illegible]	[illegible]	0.010511	16.1	400.0
[illegible]	[illegible]	2.805[illegible]	26.2	40.0
[illegible]	12.065460	17.114[illegible]	41.8	40.0
[illegible]	64.[illegible]	101.096200	57.0	4.0
[illegible]	[illegible]	0.025219	106.7	400.0
[illegible]	[illegible]	17.909030	22.1	40.0
[illegible]	[illegible]	0.064718	-25.2	400.0
[illegible]	[illegible]	38.[illegible]	0.3	8.0
[illegible]	[illegible]	1.965974	176.0	40.0
[illegible]	[illegible]	0.18[illegible]	-26.8	40.0
[illegible]	[illegible]	135.[illegible]	32.6	40.0
[illegible]	[illegible]	19.083890	-55.3	8.0
[illegible]	[illegible]	7.200337	127.7	40.0
[illegible]	17.855180	11.620240	-34.9	100.0
[illegible]	1.785462	1.090691	-38.9	40.0
[illegible]	5.197349	3.587037	-31.6	100.0

ORIGINAL (Red)

[illegible] CALIBRATION UPDATE

Sample Name: cont cal 4/10
[illegible] RC Date [illegible]
[illegible] 07-24-1991 [illegible]
[illegible] 16 [illegible]
[illegible] C:DAPCCH [illegible]
[illegible] 0 [illegible] 1
[illegible] 07-24-1991 Time 12:34:05
[illegible]
[illegible]
[illegible] 0.00
[illegible] [illegible] Inn sample per .5 sec.
[illegible] 1.00 Std. Aut. Injected: 1.00

INTERNAL STANDARD CALIBRATION

[illegible]	NAME	OLD RET. TIME	MEASURED RET. TIME	NEW RET. TIME	OLD AREA	MEASURED AREA	NEW AREA
[illegible]	[illegible]	3.56	3.56	3.56	2519	3603	3603
[illegible]	[illegible]	4.21	4.21	4.21	2553	2974	2974
[illegible]	[illegible]	5.28	5.28	5.28	3119	3302	3302
[illegible]	[illegible]	6.64	6.64	6.64	60187	76357	76357
[illegible]	[illegible]	6.81	6.81	6.81	70295	85675	85675
[illegible]	[illegible]	7.09	7.09	7.09	419960	522720	522720
[illegible]	[illegible]	7.38	7.38	7.38	217586	308777	308777
[illegible]	[illegible]	7.73	7.73	7.73	9956	7703	7703
[illegible]	[illegible]	8.77	8.77	8.77	123854	160038	160038
[illegible]	[illegible]	9.29	9.29	9.29	4366	5783	5783
[illegible]	[illegible]	9.53	9.53	9.53	51216	68808	68808
[illegible]	[illegible]	10.22	10.22	10.22	7326	17568	17568
[illegible]	[illegible]	11.14	11.14	11.14	15387	22340	22340
[illegible]	[illegible]	11.30	11.30	11.30	1093	1669	1669
[illegible]	[illegible]	11.49	11.49	11.49	913409	1208380	1208380
[illegible]	[illegible]	11.85	11.85	11.85	26743	34107	34107
[illegible]	[illegible]	13.90	13.90	13.90	1247	64343	64343
[illegible]	[illegible]	14.28	14.28	14.28	262243	259601	259601
[illegible]	[illegible]	14.65	14.65	14.65	7851	9747	9747
[illegible]	[illegible]	14.98	14.98	14.98	75783	79466	79466

[illegible] 1 peaks were found.

Method C DAPCCH updated on disk. 07-24-1991 12:34:36 version: 94

BPDR 0017959

ORIGINAL
(Red)

CONTINUING CALIBRATION SUMMARY
INTERNAL STANDARD METHOD

Initial Calib.Method file: c:\NELSON\cap nn.MET
Initial Calib.Last updated: [illegible] 10:47:24 version: [illegible]
Date of initial calibration: [illegible]
Init.Cal. File Names: C40[illegible] [illegible] C40[illegible] C40947
Contin. Calib.Method file: c:\NELSON\CAPTCH.MET
Continuing Cal.Last Updated: [illegible] 13:39:45 version: [illegible]
Continuing Cal. File Name: [illegible]
Date of Continuing Calibration: 4/10/9[illegible]
EC Position: db-624
Project: BRESLUBE-PENN

Compound Name	Initial Calibration Average RRF	Continuing Calibration RRF	Percent Difference in RRF	Continuing Calibration Conc. ppb
[illegible]	[illegible]	0.5[illegible]	38.0	40.0
[illegible]	[illegible]	0.406[illegible]	23.6	400.0
[illegible] 12	0.010199	0.007887	-22.7	400.0
[illegible]	0.649529	0.688230	6.0	40.0
[illegible]-butanone	0.089708	0.073921	-17.6	400.0
[illegible]	0.758205	0.824804	8.8	40.0
benzene	1.464275	1.524628	4.1	40.0
[illegible]	3.629233	4.602866	26.8	40.0
[illegible]	0.417872	0.254756	-39.0	40.0
[illegible]	[illegible]	0.225473	7.5	400.0
[illegible]	[illegible]	6.939280	37.9	40.0
[illegible]	[illegible]	0.389712	-1.6	40.0
[illegible]	[illegible]	6.745891	73.8	40.0
[illegible]	[illegible]	0.175575	27.5	400.0
[illegible]	3.472658	4.616695	32.9	40.0
[illegible]-benzene	5.959152	10.206410	71.3	40.0
[illegible]	7.385186	12.766210	72.9	80.0
[illegible]	5.329567	7.047293	32.2	80.0
[illegible]	2.190482	1.169237	-46.6	100.0
[illegible]	1.133596	1.947650	71.8	100.0

[illegible]

[illegible] Name: cont cal #2
[illegible] dek Date [illegible]
[illegible] 07-12-1991 [illegible]
[illegible] 16 [illegible]
[illegible] C:CAPCCH [illegible]
0 [illegible]
[illegible] Date: 07-12-1991 Time: [illegible]
[illegible] used in [illegible]
[illegible]
[illegible] 0.00
[illegible] 0.00 [illegible] sample per [illegible] sec.
[illegible] .00 Std Amt Injected: [illegible]
INTERNAL STANDARD CALIBRATION

[illegible]	NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD AREA	MEASURED AREA	NEW [illegible]
[illegible]	[illegible]	[illegible]	[illegible]	3.36	3719	2800	2800
[illegible]	[illegible]	[illegible]	3.64	3.64	28297	21784	21784
[illegible]	[illegible]	[illegible]	4.01	4.01	579	423	423
[illegible]	[illegible]	[illegible]	4.45	4.45	5088	3690	3690
[illegible]	2-butanone	[illegible]	[illegible]	5.23	4833	3963	3963
[illegible]	[illegible]	5.98	6.08	6.08	5711	4422	4422
[illegible]	[illegible]	[illegible]	6.46	6.46	17645	13403	13403
[illegible]	benzene	[illegible]	7.54	7.51	11307	8174	8174
[illegible]	[illegible]	8.49	8.59	8.59	12232	8914	8914
[illegible]	[illegible]	9.01	9.10	9.10	6725	4841	4841
[illegible]	[illegible]	9.92	10.01	10.01	590	493	493
[illegible]	[illegible]	10.17	10.26	10.26	5180	4366	4366
[illegible]	toluene	10.40	10.50	10.50	18385	13438	13438
[illegible]	[illegible]	10.73	10.84	10.84	1100	755	755
[illegible]	[illegible]	11.21	11.30	11.30	16970	13064	13064
[illegible]	[illegible]	11.40	11.48	11.48	2174	3400	3400
[illegible]	[illegible]	12.41	12.51	12.51	12573	8940	8940
[illegible]	[illegible]	12.59	12.68	12.68	25904	19765	19765
[illegible]	[illegible]	12.76	12.85	12.85	64555	49444	49444
[illegible]	[illegible]	13.32	13.41	13.41	41923	27294	27294
[illegible]	[illegible]	13.93	14.02	14.02	9698	5661	5661
[illegible]	[illegible]	14.55	14.63	14.63	10639	9429	9429

[illegible] peaks were found.
[illegible] C:CAPCCH updated on disk. 07-12-1991 13:39:45 version: 140

[illegible]

[illegible]

Initial Calib.Method fi[illegible]
Initial Calib.Last upda[illegible]
[illegible] of initial calibr[illegible]
[illegible].Cal. File Names: [illegible]
Contin. Calib.Method fi[illegible]
[illegible]
[illegible] File Name [illegible]
[illegible] Calibration: [illegible]
[illegible]
[illegible]

Compound Name	Initial Calibration Average RRF	Continuing Calibration RRF	Percent Difference in RRF	Continuing Calibration Conc. ppb
[illegible]	[illegible]	0.104647	50.6	40.0
[illegible]	[illegible]	[illegible]	21.2	400.0
[illegible]	[illegible]	[illegible]	39.2	400.0
[illegible]	[illegible]	2.919828	[illegible]	40.0
[illegible]	[illegible]	17.443870	44.6	40.0
[illegible]	[illegible]	90.378690	40.3	40.0
[illegible]	[illegible]	0.041155	239.0	400.0
[illegible]	[illegible]	20.122880	37.2	40.0
[illegible]	[illegible]	[illegible]	-18.0	400.0
[illegible]	[illegible]	41.605720	[illegible]	8.0
[illegible]	[illegible]	[illegible]	67.[illegible]	40.0
[illegible]	[illegible]	[illegible]	-30.4	40.0
[illegible]	[illegible]	148.402100	[illegible]	40.0
[illegible]	[illegible]	21.740710	-49.7	8.0
[illegible]	[illegible]	0.202657	-93.6	40.0
[illegible]	[illegible]	17.042690	-4.6	100.0
[illegible]	1.785462	1.275575	-28.6	40.0
[illegible]	5.197349	4.924929	-5.2	100.0

PC Date
07-24-1991
16
C:DAPCCH

07-24-1991 Time:

INTERNAL STANDARD CALIBRATION

	[illegible]	3.64	3.65	3.65	4340	2519	2519
	[illegible]	4.31	[illegible]	4.3[illegible]	[illegible]942	2555	2555
	[illegible]	5.41	5.41	5.41	[illegible]	3119	3119
4	[illegible]	6.78	[illegible]	6.76	91782	[illegible]0187	60187
	[illegible]	6.9[illegible]	6.93	6.93	100761	70295	70295
6	[illegible]	7.23	7.21	7.21	623696	419960	419960
7	[illegible]	7.51	7.49	7.49	353069	217586	217586
8	[illegible]	7.87	7.85	7.85	10015	9956	9956
9	[illegible]	8.90	8.87	8.87	173[illegible]35	123856	123856
10	[illegible]	9.42	9.40	9.40	8033	4366	4366
	[illegible]	9.66	9.63	9.63	7[illegible]148	51216	51216
	[illegible]	10.34	10.31	10.31	8685	7326	7326
	[illegible]	11.26	11.23	11.23	27447	15387	15387
	[illegible]	11.45	11.40	11.40	10467	1093	1093
	[illegible]	11.62	11.59	11.59	1270838	913409	913409
	[illegible]	11.97	11.95	11.95	24259	[illegible]	26763
	[illegible]	14.02	13.99	13.99	134076	1247	1247
	[illegible]	14.39	14.36	14.36	364334	262243	262243
	[illegible]	14.75	14.72	14.72	20562	7851	7851
	[illegible]	15.06	15.04	15.04	95922	75783	75783

[illegible] were found.
[illegible] C DAPCCH updated on disk. 07-24-1991 12:25:58 Version: 92 .

[illegible] CALIBRATION [illegible]
INTERNAL STANDARD METHOD

Initial Calib.Method file: [illegible]
Initial Calib.Last updated: [illegible] version: [illegible]
Date of initial calibration: [illegible]
Init.Cal. File Names: [illegible]
Contin. Calib.Method file: [illegible]
Continuing Cal.Last Updated: [illegible] version: [illegible]
Continuing Cal. File Name: [illegible]
[illegible] Calibration: [illegible]
[illegible] 02-624
Project: [illegible]

Compound Name	Initial Calibration Average RRF	Continuing Calibration RRF	Percent Difference in RRF	Continuing Calibration Conc. ppb
[illegible]	[illegible]	0.461[illegible]	22.0	40.0
[illegible]	[illegible]	0.371[illegible]	-2.[illegible]	400.0
[illegible]	[illegible]	0.[illegible]7399	-25.5	400.0
[illegible]	[illegible]	0.701[illegible]	8.0	40.0
[illegible]	0.06[illegible]	0.068242	-23.8	400.0
[illegible]	0.758[illegible]	0.706891	-6.8	40.0
[illegible]	[illegible]	1.494653	2.1	40.0
[illegible]	[illegible]	4.360[illegible]36	20.2	40.0
[illegible]	0.417[illegible]	0.[illegible]2293	-46.8	40.0
[illegible]	[illegible]	0.168[illegible]36	-19.7	400.0
[illegible]	[illegible]	6.388777	27.0	40.0
[illegible]	[illegible]	0.286944	-27.5	40.0
[illegible]	[illegible]	[illegible].229[illegible]	60.5	40.0
[illegible]	[illegible]	0.203880	48.0	400.0
[illegible]	[illegible]	3.890376	12.0	40.0
[illegible]	5.[illegible]9152	8.472531	42.2	40.0
[illegible]	[illegible].385186	10.694090	44.8	80.0
[illegible]	5.[illegible]9567	6.252737	17.3	80.0
[illegible]	2.190482	1.616319	-26.2	100.0
[illegible]	1.133596	1.415437	24.9	100.0

[illegible] Sys: [illegible]
Operator: [illegible] Date: [illegible] 14:46:07
Date: 07-12-1991 Time: 11:51:39
Injection: 15 Cycle: 15
[illegible]: C:CAPCCH Channel: 0
[illegible]: 0 Level: 1
[illegible] Date: 07-12-1991 Time: [illegible]
[illegible] file used in average:
[illegible]
[illegible] 0.00
[illegible] 0.00 One sample per 1.5 sec.
[illegible] 0.00 Std. Amt. Injected. 1.00

INTERNAL STANDARD CALIBRATION

[illegible]	[illegible]	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD AREA	MEASURED AREA	NEW AREA
[illegible]	[illegible]	3.32	3.33	3.33	4094	[illegible]	4714
2	[illegible]	3.60	3.61	3.61	38671	33014	33014
3	[illegible]	3.95	3.98	3.98	874	781	781
4	[illegible]	4.42	4.43	4.43	6218	7208	7208
5	[illegible]	5.21	5.20	5.20	6682	7021	7021
6	[illegible]	6.04	6.06	6.06	6269	7262	7262
7	[illegible]	6.42	6.42	6.42	26025	25682	25682
8	[illegible]	7.51	7.53	7.53	14672	15354	15354
9	[illegible]	8.56	8.57	8.57	14712	16197	16197
10	[illegible]	9.08	9.09	9.09	8947	9286	9286
11	[illegible]	9.98	9.99	9.99	706	826	826
12	[illegible]	10.24	10.24	10.24	5409	6256	6256
13	[illegible]	10.47	10.48	10.48	22300	23731	23731
14	[illegible]	10.81	10.82	10.82	1113	1066	1066
15	[illegible]	11.27	11.28	11.28	21052	23141	23141
16	[illegible]	11.47	11.47	11.47	5597	7573	7573
17	[illegible]	12.48	12.49	12.49	13624	14451	14451
18	[illegible]	12.65	12.66	12.66	29947	31471	31471
19	[illegible]	12.82	12.83	12.83	74436	79446	79446
[illegible]	[illegible]	13.38	13.39	13.39	42100	46451	46451
[illegible]	[illegible]	13.99	14.00	14.00	16516	15009	15009
22	[illegible]	14.61	14.62	14.62	11365	13144	13144

All peaks were found.
Method C:CAPCCH updated on disk. 07-12-1991 11:51:37 version: 138

CONTINUING CALIBRATION SUMMARY
INTERNAL STANDARD METHOD

Initial Calib.Method file: [illegible]
Initial Calib.Last updated: [illegible] 11:[illegible] version: [illegible]
Date of initial calibration: [illegible]
Init.Cal. File Names: [illegible]
Contin. Calib.Method file: [illegible]
Continuing Cal.Last Updated: [illegible] 1991 11:41:59 version: [illegible]
Continuing Cal. File Name: [illegible]
Date of Continuing Calibration: [illegible]
CC column: db-624
Project: [illegible]

Compound Name	Initial Calibration Average RRF	Continuing Calibration RRF	Percent Difference in RRF	Continuing Calibration Conc. ppb
110DCEa	0.069505	0.117009	71.2	40.0
[illegible]	0.008733	0.009229	5.4	400.0
[illegible]	0.009389	0.013868	49.0	400.0
[illegible]	2.232302	2.790760	25.6	40.0
111TCEa	12.065460	17.286100	43.3	40.0
[illegible]	64.397100	103.588600	60.9	4.0
120DCEa	0.012300	0.062037	408.5	400.0
TCE/ecd	14.664520	17.350980	18.3	40.0
120DCPa	0.086554	0.077336	-10.6	400.0
[illegible]	38.384030	37.133690	-3.3	8.0
113DCPa	0.712425	1.757640	146.7	40.0
112TCEa	0.255312	0.222077	-13.0	40.0
PCE/ecd	102.007000	133.575800	30.9	40.0
[illegible]	43.206790	21.991400	-49.1	8.0
[illegible]	3.162867	2.874150	-9.1	40.0
[illegible]	17.855180	15.590920	-12.7	100.0
123PCEa	1.785462	1.883855	5.5	40.0
[illegible]	5.197349	4.653100	-10.5	100.0

[illegible]

[illegible] Date [illegible]

07-12-1991 [illegible]

[illegible]

[illegible]

[illegible]

[illegible] 07-12-1991 Time: [illegible]

[illegible] used in average

[illegible]

[illegible] 0.0[illegible] One sample [illegible] sec.

[illegible] 1.00 Std. Amt. Injection: 1.00

INTERNAL STANDARD CALIBRATION

[illegible]	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD AREA	MEASURED AREA	NEW AREA
[illegible]	3.66	3.60	3.60	13786	4767	4767
[illegible]	4.28	4.26	4.26	25697	3696	3696
[illegible]	5.37	5.37	5.37	12278	5554	5554
[illegible]	6.73	6.72	6.72	356771	100132	100132
[illegible]	6.89	6.88	6.88	429244	111777	111777
[illegible]	7.18	7.17	7.17	1936809	692354	692354
[illegible]	7.46	7.45	7.45	1107389	414900	414900
[illegible]	7.82	7.81	7.81	65453	24848	24848
[illegible]	8.84	8.84	8.84	218979	206407	206407
[illegible]	9.36	9.36	9.36	91774	9200	9200
[illegible]	9.60	9.60	9.60	710860	88348	88348
[illegible]	10.28	10.28	10.28	387153	20909	20909
[illegible]	11.20	11.20	11.20	216626	29740	29740
[illegible]	11.36	11.36	11.36	72279	2642	2642
[illegible]	11.56	11.56	11.56	4474309	1589018	1589018
[illegible]	11.91	11.91	11.91	589425	52322	52322
[illegible]	13.96	13.95	13.95	309386	34191	34191
[illegible]	14.34	14.32	14.32	3925893	463674	463674
[illegible]	14.70	14.68	14.68	179002	22410	22410
[illegible]	15.02	15.00	15.00	1173907	138383	138383

[illegible] peaks were found.

[illegible] updated on disk. 07-12-1991 11:41:39 version: 89

ORIGINAL
(Red)

Summary of

Method

Blank Results

BPDR 0017968

SUMMARY OF METHOD BLANK RESULTS
* = Highest Blank Result
>>>>>>>>>> PID <<<<<<<<<<

FILE NAME COMPOUND	E:C410H3 BLANK RESULT	E:C410H6 BLANK RESULT	E:C410H8 BLANK RESULT	E:C410H16 BLANK RESULT
1,1 DCEe/ACETONE	0.00	0.00	0.00	0.00
CARBON DISULFIDE	0.00	0.00	0.00	0.00
METHYLENE CHLORIDE	0.00	0.00	0.00	0.00
t-1,2-DICHLOROETHYLENE	0.00	0.00	0.00	0.00
2-BUTANONE	0.00	0.00	0.00	0.00
c-1,2-DCEe/VINYL ACETATE	0.00	0.00	0.00	0.00
BENZENE	0.00	0.00	0.00	0.00
TRICHLOROETHENE	0.00	0.00	0.00	0.00
c-1,3-DICHLOROPROPENE	0.00	0.00	0.00	0.00
4-METHYL-2-PENTANONE	0.00	0.00	0.00	0.00
TOLUENE	2.65	2.40	2.32	* 2.84
t-1,3-DICHLOROPROPENE	0.00	0.00	0.00	0.00
TETRACHLOROETHENE	0.00	0.00	0.00	0.00
2-HEXANONE	0.00	0.00	0.00	0.00
CHLOROBENZENE	0.00	0.00	0.00	0.00
ETHYL BENZENE	0.00	0.00	0.00	0.00
p- & m-XYLENE	2.16	* 2.30	1.77	1.86
o-XYLENE/STYRENE	1.53	1.68	1.13	* 1.82

>>>>>>>>>> ECD <<<<<<<<<<

FILE NAME COMPOUND	E:D410H3 BLANK RESULT	E:D410H6 BLANK RESULT	E:D410H8 BLANK RESULT	E:D410H16 BLANK RESULT
1,1-DICHLOROETHYLENE	0.00	0.00	0.00	0.00
METHYLENE CHLORIDE	0.00	0.00	0.00	0.00
1,1-DICHLOROETHANE	0.00	* 41.2	0.00	0.00
CHLOROFORM	0.00	0.00	0.00	0.00
1,1,1-TRICHLOROETHANE	1.17	* 2.08	1.96	1.22
CARBON TETRACHLORIDE	1.30	1.37	1.37	* 1.60
1,2-DICHLOROETHANE	0.00	0.00	0.00	0.00
TRICHLOROETHYLENE	0.00	* 1.95	0.00	0.00
1,2-DICHLOROPROPANE	* 1521.00	0.00	0.00	1481.00
BROMODICHLOROMETHANE	0.00	0.00	0.00	0.00
c-1,3-DICHLOROPROPENE	0.00	0.00	* 3.65	0.00
1,1,2-TRICHLOROETHANE	0.00	0.00	0.00	0.00
TETRACHLOROETHYLENE	1.51	* 3.22	1.94	1.58
DIBROMOCHLOROMETHANE	0.00	0.00	0.00	0.00
BROMOFORM	0.00	0.00	0.00	0.00
1,1,2,2 TETRACHLOROETHANE	0.00	0.00	0.00	0.00

Results are expressed as ug/kg

ORIGINAL
(Red)

Matrix Spike Results

MATRIX SPIKE

SAMPLE NAME S-13
AMOUNT FOR MOST COMPOUNDS= 40 ug/l 240 ug/kg

>>>>>>>>>> PID <<<<<<<<<<

COMPOUND	C410H19 SPIKE RESULT	C410H13 SAMPLE RESULT	AMOUNT SPIKE ADDED	PERCENT RECOVERY
1,1-DCEe/ACETONE	251.00	0.00	240.00	104.6
CARBON DISULFIDE	532.00	0.00	400.00	133.0
METHYLENE CHLORIDE	2590.00	0.00	2400.00	107.9
t-1,2-DICHLOROETHYLENE	182.00	0.00	240.00	75.8
2-BUTANONE	146.00	0.00	2400.00	6.1
c-1,2-DCEe/VINYL ACETATE	233.00	0.00	240.00	97.1
BENZENE	115.00	0.00	240.00	47.9
TRICHLOROETHENE	82.40	0.00	240.00	34.3
c-1,3-DICHLOROPROPENE	192.00	0.00	240.00	80.0
4-METHYL-2-PENTANONE	2220.00	0.00	2400.00	92.5
TOLUENE	88.80	0.00	240.00	37.0
t-1,3-DICHLOROPROPENE	138.00	0.00	240.00	57.5
TETRACHLOROETHENE	35.50	0.00	240.00	14.8
2-HEXANONE	1244.00	0.00	2400.00	51.8
CHLOROBENZENE	50.80	0.00	240.00	21.2
ETHYL BENZENE	28.50	0.00	240.00	11.9
p- & m-XYLENE	56.10	0.00	480.00	11.7
o-XYLENE/STYRENE	81.30	0.00	480.00	16.9

>>>>>>>>>> ECD <<<<<<<<<<

COMPOUND	D410H19 SPIKE RESULT	D410H13 SAMPLE RESULT	AMOUNT SPIKE ADDED	PERCENT RECOVERY
1,1-DICHLOROETHYLENE	377.00	22.74	240.00	147.6
METHYLENE CHLORIDE	1250.00	0.00	2400.00	52.1
1,1-DICHLROROETHANE	445.00	0.00	2400.00	18.5
CHLOROFORM	88.00	0.00	240.00	36.7
1,1,1-TRICHLOROETHANE	46.20	0.00	240.00	19.3
CARBON TETRACHLORIDE	2.37	0.00	24.00	9.9
1,2-DICHLOROETHANE	649.00	0.00	2400.00	27.0
TRICHLOROETHYLENE	102.00	0.00	240.00	42.5
1,2-DICHLOROPROPANE	836.00	0.00	2400.00	34.8
BROMODICHLOROMETHANE	30.80	0.00	48.00	64.2
c-1,3-DICHLOROPROPENE	185.00	0.00	240.00	77.1
1,1,2-TRICHLOROETHANE	24.80	0.00	240.00	10.3
TETRACHLOROETHYLENE	39.80	0.00	240.00	16.6
DIBROMOCHLOROMETHANE	28.50	0.00	48.00	59.4
BROMOFORM	428.00	0.00	240.00	178.3
1,1,2,2-TETRACHLOROETHANE	215.00	0.00	240.00	89.6

* WHERE X-C FOR PID FILE AND
  X=D FOR ECD FILE

Results are expressed as ug/kg

BPDR 0017971

ORIGINAL (Red)

CALCULATION OF THE AMOUNT OF SPIKE SOLUTION ADDED TO THE SAMPLE

$$\frac{\text{amount of spike solution (ul) X concentration of spike solution (ug/ml)}}{\text{sample weight (kg)}}$$

FOR MOST COMPOUNDS:

$$12\ \mu l \times \frac{100\ ug}{ml} \times \frac{1\ ml}{1000\ \mu l} \times \frac{1}{0.03\ kg} = 40\ ug/kg$$

FOR KETONES:

$$4.8\ \mu l \times \frac{2000\ ug}{ml} \times \frac{1\ ml}{1000\ \mu l} \times \frac{1}{0.03\ kg} = 320\ ug/kg$$ in addition to the 80 ug/kg in the "most" solution above

= 320 ug/kg + 80 ug/kg = 400 ug/kg

FOR DICHLORINATED COMPOUNDS:

$$19.2\ \mu l \times \frac{625\ ug}{ml} \times \frac{1\ ml}{1000\ \mu l} \times \frac{1}{0.03\ kg} = 400\ ug/kg$$

QC C

Standar

BPDR 0017973

QC CHECK STANDARD ANALYSIS

>>>>>>>>>> PID <<<<<<<<<<

COMPOUND	C410H4 SAMPLE RESULT	CONC. ADDED	PERCENT RECOVERY
1,1-DCEe/ACETONE	285.00	500.00	57.0
CARBON DISULFIDE	143.00	1000.00	14.3
METHYLENE CHLORIDE	3040.00	3125.00	97.3
t-1,2-DICHLOROETHYLENE	473.00	500.00	94.6
2-BUTANONE	395.00	1000.00	39.5
c-1,2-DCEe/VINYL ACETATE	292.00	500.00	58.4
BENZENE	866.00	500.00	173.2
TRICHLOROETHENE	656.00	500.00	131.2
c-1,3-DICHLOROPROPENE	525.00	500.00	105.0
4-METHYL-2-PENTANONE	446.00	1000.00	44.6
TOLUENE	699.00	500.00	139.8
t-1,3-DICHLOROPROPENE	688.00	500.00	137.6
TETRACHLOROETHENE	632.00	500.00	126.4
2-HEXANONE	443.00	1000.00	44.3
CHLOROBENZENE	690.00	500.00	138.0
ETHYL BENZENE	642.00	500.00	128.4
p- & m-XYLENE	1380.00	1000.00	138.0
o-XYLENE/STYRENE	1050.00	1000.00	105.0

>>>>>>>>>> ECD <<<<<<<<<<

COMPOUND	D410H4 SAMPLE RESULT	CONC. ADDED	PERCENT RECOVERY
1,1-DICHLOROETHYLENE	259.00	500.00	51.8
METHYLENE CHLORIDE	3360.00	3125.00	107.5
1,2-DICHLROROETHANE	1630.00	3125.00	52.2
1,1-DICHLOROETHANE	1990.00	3125.00	63.7
CHLOROFORM	483.00	500.00	96.6
1,1,1-TRICHLOROETHANE	493.00	500.00	98.6
CARBON TETRACHLORIDE	59.50	50.00	119.0
TRICHLOROETHYLENE	778.00	500.00	155.6
1,2-DICHLOROPROPANE	4849.00	3125.00	155.2
BROMODICHLOROMETHANE	148.00	100.00	148.0
c-1,3-DICHLOROPROPENE	811.00	500.00	162.2
1,1,2-TRICHLOROETHANE	154.00	500.00	30.8
TETRACHLOROETHYLENE	862.00	500.00	172.4
DIBROMOCHLOROMETHANE	158.00	100.00	158.0
BROMOFORM	257.00	500.00	51.4
1,1,2,2-TETRACHLOROETHANE	565.00	500.00	113.0

Results are expressed as ug/kg

BPDR 0017974

ORIGINAL (Red)

ORIGINAL (Red)

CALCULATION OF THE QC CHECK SAMPLE CONCENTRATION

$$\frac{\text{amount of QC Check solution (ul) X concentration (ug/l)}}{\text{sample volume (ul)}}$$

FOR MOST COMPOUNDS:

$$25\ \text{ul} \times \frac{100\ \text{ug}}{\text{ml}} \times \frac{1000\ \text{ml}}{\text{l}} \times \frac{1}{30000\ \text{ul}} = 83.33\ \text{ug/l}$$

FOR KETONES:

$$25\ \text{ul} \times \frac{200\ \text{ug}}{\text{ml}} \times \frac{1000\ \text{ml}}{\text{l}} \times \frac{1}{30000\ \text{ul}} = 166.67\ \text{ug/l}$$

FOR DICHLORINATED COMPOUNDS:

$$25\ \text{ul} \times \frac{625\ \text{ug}}{\text{ml}} \times \frac{1000\ \text{ml}}{\text{l}} \times \frac{1}{30000\ \text{ul}} = 520.83\ \text{ug/l}$$

Duplicate

4/10/

BPDR 0017976

DUPLICATE ANALYSIS

SAMPLE NAME S-16

>>>>>>>>>> PID <<<<<<<<<<

FILE NAME COMPOUND	E:C410H12 SAMPLE RESULT	E:C410H14 DUPLICATE RESULT	PERCENT DIFFERENCE
1,1-DCEe/ACETONE	238.00	233.00	2.1
CARBON DISULFIDE	0.00	0.00	NA
METHYLENE CHLORIDE	2480.00	2050.00	19.0
t-1,2-DICHLOROETHYLENE	61.20	58.30	4.8
2-BUTANONE	0.00	0.00	NA
c-1,2-DCEe/VINYL ACETATE	2270.00	2030.00	11.2
BENZENE	1130.00	913.00	21.2
TRICHLOROETHENE	790.00	760.00	3.9
c-1,3-DICHLOROPROPENE	205.00	83.00	84.7
4-METHYL-2-PENTANONE	2340.00	2010.00	15.2
TOLUENE	1350.00	1030.00	26.9
t-1,3-DICHLOROPROPENE	512.00	53.00	162.5
TETRACHLOROETHENE	70.00	61.00	13.7
2-HEXANONE	319.00	248.00	25.0
CHLOROBENZENE	13.70	10.50	26.4
ETHYL BENZENE	39.00	33.00	16.7
p- & m-XYLENE	149.00	126.00	16.7
o-XYLENE/STYRENE	58.60	54.00	8.2

>>>>>>>>>> ECD <<<<<<<<<<

FILE NAME COMPOUND	E:D410H12 SAMPLE RESULT	E:D410H14 DUPLICATE RESULT	PERCENT DIFFERENCE
1,1-DICHLOROETHYLENE	877.00	1070.00	19.8
METHYLENE CHLORIDE	2390.00	1940.00	20.8
1,1-DICHLRORDETHANE	843.00	690.00	20.0
CHLOROFORM	85.50	63.40	29.7
1,1,1-TRICHLOROETHANE	110.00	92.80	17.0
CARBON TETRACHLORIDE	0.00	0.00	NA
1,2-DICHLOROETHANE	0.00	0.00	NA
TRICHLOROETHYLENE	944.00	654.00	36.3
1,2-DICHLOROPROPANE	2210.00	940.00	80.6
BROMODICHLOROMETHANE	0.00	0.00	NA
c-1,3-DICHLOROPROPENE	0.00	0.00	NA
1,1,2-TRICHLOROETHANE	0.00	0.00	NA
TETRACHLOROETHYLENE	130.00	92.40	33.8
DIBROMOCHLOROMETHANE	0.00	0.00	NA
BROMOFORM	0.00	0.00	NA
1,1,2,2-TETRACHLOROETHANE	0.00	0.00	NA

Results are expressed as ug/kg

BPDR 0017977

Copy

Co

BPDR 0017978

COMP BOOK ORIGINAL (Red)

GC Injection Logbook

3/13/90 - / /

Varian 3300 model serial #5440

80 SHEETS • 11 x 8½ • COLLEGE • 43-481

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BPDR 0017979

Date/ Time	Operator	Disc File ID	Column	Method File	Detector	Project Name	Sample weight/ volume	ORIGINAL Sample ID	Comments
4/4	RS	Adjusted final split ratio as desired for headspace to 39.8:1							
		settings are MV2 = 120				set col. to 140 overnight			
should achieve		initial 4 on 111 = 39.8:1		MV1 = 24		and ovns. =		175	
		initial 1 on 111 = 42.3:1							
[ECD range 1]				MV3 = 42		(need to reprogram col. temp. for a.m. startup)			
4/5/94	DK	left split alone, per initial cal w/ HS settings							
10:20	DK	C405H1	DB-624	CAPINH	PID	split	30mL	Bakeout	No sample injected for bakeout
		D405H1	cap	DAPINH	ECD				
10:52	DK	C405H2	cap	CAPINH	P		30mL	initial cal H1	100ug/L dichloro + ketones
		D405H2		DAPINH	E				
11:20	DK	C405H3	cap	CAPINH	P		30mL	initial 2	30 most 300 dcl PID range from 10 to 11
		D405H3		DAPINH	E				
		209/5.6 = split of 35.8:1							
		MV3 = 21 approximately				flows 203/4.8 ml/min			= split 42.3:1
		MV2 = 145		split changed before injection of X405H3					
11:48	DK	C405H4	cap	capinh	P		30	initial cal 3	80 most 400 DCL and ketones
		D405H4		dapinh	E				
12:42	DK	C405H5	cap	capinh	P		30	initial cal 4	300 most, no DCL and ketones
		D405H5		dapinh	E				
1:08	DK	C405H6	cap	capinh	P		30	initial cal 1	also using split changed
		D405H6		dapinh	E				100ug/L DCL + ketones
8:20	DOB	C409H1	CAP	CAPINH	PID	BP	—	Bakeout	split 39.6:1
		D409H1		DAPINH	ECD	"			
8:56	DOB	C " H2		C "	P "	"	30mL + 1mL	Init Cal 4.5ng m601 1.5ng m602 [illegible]	IS #1
		D " H2		D "	E "	"			
9:22	DOB	C " H3		C "	P "		30mL + 1mL	6.0ng m603 14.4ng m611 [illegible]	IS #2
		D " H3		D "	E "	"			
9:51	DOB	C " H4		C "	P "	"	30mL + 1mL	Init Cal 4ng m611 1.5ng m602 [illegible]	IS #1
		D " H4		D "	E "	"	0.3mL IS (ml)		
10:14	DOB	C " H5	CAP	C "	P "	"		IS areas low	IS #2
		D " H5		D "	E "				
10:41	DOB	C " H6		C "	P "	"	30mL + 25mL	[illegible] 4/4/94 24ng #1 4.2ng #2 11.0ng #3	IS #3
		D " H6		D "	E "	"	Total 1L	D ng DCL 6	

p.56 date time	operator	field file ID	column	method file	detector	project	wt/vol	sample ID	comments ORIGINAL (RED)
4/9/91 1106	DDB	C409H7	DB-624	DAPINH	PID	BP	30 ml + 10 ml	IC #4 90 ml #1 + 10 ml #2	Init Cal #4
		D409H7	"	DAPINH	ECD	"			
1113C	DDB	C " H8	"	C "	P "	"	30 ml + 10 ml	method blank 10 ml #ASU	method blank
		D " H8	"	D "	E "	"			
11:54	DDB	C " H9	"	C "	P "	"	30 ml + 10 ml	IC #1	Init Cal #1
		D " H9	"	D "	E "	"			
12:15	DDB	C " H10	"	C "	P "	method file messed up discuss	30 ml + 25 ml	IC #2	Init Cal #2
		D " H10	"	D "	E "				
13:00	DDB	C " H11	"	C "	P "	"	"	"	Init Cal #2 RSDs are [illegible]
		D " H11	"	D "	E "	"	"	"	
1:35	DDB	C " H12	"	C "	P "	"	"	"	Init Cal #2
		D " H12	"	D "	E "	"	"	"	
4/10/91						Brushbe	Lem (BP)		
7:29	DK	C410H1	cap	capcch	PID			Bakeout	MIXH1 - M605 MIX#2 - M610 TOLH1 - M607 ES - M616 40 mosT 400 DCM Ketone
		D410H1		dapcch	ECD				
8:08	DK	C410H2	cap	capcch	P		30 ml	Cont cal	
		D410H2		dapcch	E				
8:31	DK	C410H3	cap	capcch	P		30 ml	Blank	
		D410H3		dapcch	E				
9:05	DK	C410H4	cap	capcch	P		5 ml / 30 ml	QCCheck	25 ul of M6130 3 ml Underscreen for PSU GC HIMS
		D410H4		dapcch	E				
9:30	DK	C410H5	cap	capcch	P		30 ml	Cont cal	40 mosT H2O DCM Ketone
		D410H5		dapcch	E				
10:00	DK	C410H6	cap	capcch	P		30 ml	Meth blk	
		D410H6		dapcch	E				
10:42	DK	C410H7	cap	capcch	P		30 ml	Cont cal 3	missing MIX#1 - M604 #2 - M611 TOLH - M607 ES - M617
		D410H7		dapcch	E				
11:13	DK	C410H8	cap	capcch	P		30 ml	Blank	
		D410H8		dapcch	E				
11:38	DK	C410H9	cap	capcch	P		30 ml	Cont cal 4	void DK 4/12/91
		D410H9		dapcch	E				
NO RUN	DK	C410H10	cap	capcch	P		30 ml	Bridge H	20 mosT 300 DCM
		D410H10		dapcch	E				

ORIGINAL (RED) P57

Date Time	Operator	Disk File ID	Column	Method File	Detector	Project	Wt/Vol	Sample ID	Comments
	DK	C410H10	Cap	Capsch	P	Bresbite Penn	8.25g	S-15	Tag 3-1132978
		D410H10		Dapsch	E				
		Sample vial broke before analysis but [illegible] prep.							
4/10/91	DK	C410H10	Cap	Capsch	P	Bresbite	8.70	S-15	TAG# 3-1132979
12:37		D410H10		Dapsch	E	Penn			NO HITS
1:07	DK	C410H11	Cap	Capsch	P		16.47g	S-BACK	TAG# 3-1131157
		D410H11		Dapsch	E				
1:33	DK	C410H12	Cap	Capsch	P		12.53g	S-16	WASTE PIT TAG# 3-113298[illegible]
		D410H12		Dapsch	E				
1:58	DK	C410H13	Cap	Capsch	P		10.16g	S-13	TAG# 3-113115[illegible]
:23	[illegible]	D410H13		Dapsch	E				
~~1:58~~	DK	C410H14	Cap	Capsch	P		16.22g	S-16 dup	TAG# 3-113298[illegible]
		D410H14		Dapsch	E			redo	
~~2:23~~ 2:49	DK	C410H15	Cap	Capsch	P		30mL	Contcal 4	40 most 400 DCLK
		D410H16		Dapsch	E				
3:11	DK	C410H16	Cap	Capsch	P		30mL	Meth Blk	
		D410H16		Dapsch	E				
3:39	DK	C410H17	Cap	Capsch	P		15.02g	S-12	TAG# 3-1131152
		D410H17		Dapsch	E				
[illegible]:04	DK	C410H18	Cap	Capsch	P		10.19g	S-14	TAG# 3-1131160
		D410H18		Dapsch	E				
4:33	DK	C410H19	Cap	Capsch	P		9.90g	S-13 SPK	TAG# 3-1131155
		D410H19		Dapsch	E				MATRIX SPIKE SAME AS CONTCAL CONC.
5:14	DK	C410H20	Cap	Capsch	P		4.84g	Trip Blk	TAG# 3-113[illegible]86
		D410H20		Dapsch	E				15 [illegible] PID IS [illegible]
	DK	C410H21	Cap	Capsch	P		30mL	contcal 5	40 most 400 DCLK
		D410H21		Dapsch	E			IS	
5:38	DK	C410H21	Cap	Capsch	P		30mL	Contcal 5	40 most 400 DCLK
		D410H21		Dapsch	E				
6:02	DK	C410H22	Cap	Capsch	P		5.66g	Trip Blk	TAG# 3-1132984
		D410H22		Dapsch	E				

Copy

Sample C

Chain e

BPDR 0017983

Chain-Of-Custody Log

Signature of Sampler(s): [illegible] Tom Stout [illegible] Bill Wentworth [illegible] [illegible]

Site Name: Breslube-Penn Inc.

TDD Number: F3-9102-10

Signature of Analyst(s): [illegible] [illegible]

Sample Location Identifier	No. of 40-ml Bottles	Bottle Tag Numbers	Collection Date	Collection Time	Transfer Date	Transfer Time	Sampler Relinquishing Custody	Analyst Receiving Custody	Analyst-Assigned Laboratory Sample No.	Remarks (condition of sample, etc.)
S-12	2	~~[illegible]~~ 3-1131151 and 3-1131152	4-10-91	1012	4/10/91	1145	Bill Wentworth	[illegible]		
* S-13 (matrix)	4	3-1131153 thru 3-1131156	4-10-91	1000						
S-14 (dup of 12)	~~4~~ 2	3-1131159 and 3-1131160	4-10-91	1012						
S-Back	2	3-1131157 and 3-1131158	4-10-91	1025						
S-15	2	3-1132978 + 3-1132979	4-10-91	1045						
** S-16	2	3-1132980 + 3-1132981	4-10-91	1055						
~~S-17~~ UH 4-10-91	~~2~~	~~3-1132982 + 3-1132983~~	~~4-10-91~~							
Trip Blk-Fast	3	3-1132984 thru 3-1132986	4-10-91	0800						

* UOA 1131154 (S-13) some H_2O spilled out.

** S-16 from the waste pile (Do last)

ORIGINAL (RED)

Retention Tim[illegible]ndows

(Develo[illegible]

BPDR 0017985

RT file [illegible] Version [illegible] 07-[illegible]

**********RETENTION TIME WINDOWS USING 3 METHODS**********

Degrees of freedom (DF) & retention time windows for each method as follows:

Compound Name	DF	EXT.STD.RTW	DF	RRT meth.RTW	DF	RT Index RTW
11DCE/acet	7	0.0793	7	0.0909	0	0.0000
CS2	7	0.1403	7	0.0874	0	0.0000
MeCl2	6	0.1353	6	0.0858	0	0.0000
t12DCEe	6	0.1268	6	0.0565	0	0.0000
2-butanone	7	0.1008	7	0.0224	0	0.0000
c12DCE/VAc	7	0.1519	7	0.0671	0	0.0000
IS-1/pid	7	0.1209	7	0.0000	0	0.0000
benzene	7	0.2833	7	0.1961	7	0.2127
TCE	7	0.1403	7	0.0716	7	0.0645
IS-2/pid	7	0.0936	7	0.0000	0	0.0000
c13DCP	7	0.1353	7	0.1712	7	0.1640
4me2pent	7	0.0919	7	0.0227	7	0.0130
toluene	7	0.1008	7	0.0282	7	0.0201
t13DCP	7	0.1094	7	0.1358	7	0.1190
PCE/p	7	0.0839	7	0.0587	7	0.0313
2-hexanone	7	0.0785	7	0.0582	7	0.0270
cl-benzene	7	0.5837	7	0.6021	7	0.6091
eth-benzene	6	0.0953	6	0.0089	6	0.0099
p&mxylene	6	0.0953	6	0.0078	6	0.0086

Press 'ENTER' to continue viewing list?

2-butanone	7	0.1008	7	0.0224	0	0.0000
c12DCE/VAc	7	0.1519	7	0.0671	0	0.0000
IS-1/pid	7	0.1209	7	0.0000	0	0.0000
benzene	7	0.2833	7	0.1961	7	0.2127
TCE	7	0.1403	7	0.0716	7	0.0645
IS-2/pid	7	0.0936	7	0.0000	0	0.0000
c13DCP	7	0.1353	7	0.1712	7	0.1640
4me2pent	7	0.0919	7	0.0227	7	0.0130
toluene	7	0.1008	7	0.0282	7	0.0201
t13DCP	7	0.1094	7	0.1358	7	0.1190
PCE/p	7	0.0839	7	0.0587	7	0.0313
2-hexanone	7	0.0785	7	0.0582	7	0.0270
cl-benzene	7	0.5837	7	0.6021	7	0.6091
eth-benzene	6	0.0953	6	0.0089	6	0.0099
p&mxylene	6	0.0953	6	0.0078	6	0.0086

Press 'ENTER' to continue viewing list?

RT file C:\NELSON\capcch.RTW Version Number= 3 To be updated 07-23-1991 11:30:21

**********RETENTION TIME WINDOWS USING 3 METHODS**********

Degrees of freedom (DF) & retention time windows for each method as follows:

Compound Name	DF	EXT.STD.RTW	DF	RRT meth.RTW	DF	RT Index RTW
oxyl/styrene	6	0.0953	6	0.0040	6	0.0044
IS-3/pid	7	0.0878	7	0.0000	0	0.0000
IS3#2	7	0.0919	7	0.0259	0	0.0000

Press 'ENTER' to continue or type 'V' to VIEW list again?

RT file C:\NELSON\dapcch.RTW Version Number= 2 To be updated [illegible]

**********RETENTION TIME WINDOWS USING 3 METHODS**********

Degrees of freedom (DF) & retention time windows for each method as follows:

Compound Name	DF	EXT.STD.RTW	DF	RRT meth.RTW	DF	RT Index RTW
11DCEe/e	6	0.1483	6	0.0917	0	0.0000
MeCl2	7	0.1488	7	0.0722	0	0.0000
11DCEa	7	0.0917	7	0.0307	0	0.0000
IS-1/ecd	7	0.1293	7	0.0000	0	0.0000
CHCl3	6	0.1319	6	0.0257	6	0.0274
111TCEa	7	0.0957	7	0.1145	7	0.0910
CCl4	7	0.0829	7	0.1066	7	0.0663
12DCEa	4	0.0991	4	0.0670	4	0.0415
TCE/ecd	7	0.0771	7	0.0977	7	0.0320
12DCPa	7	0.1028	7	0.1409	7	0.0856
BrCl2methane	6	0.1083	6	0.1598	6	0.1075
c13DCPe	7	0.2924	7	0.3251	7	0.3250
IS#2/ecd	7	0.1185	7	0.0000	0	0.0000
112TCEa	6	0.2419	6	0.1179	6	0.1268
PCE/ecd	7	0.0673	7	0.1180	7	0.1007
Br2Clmethane	7	0.1086	7	0.1757	7	0.1394
CHBr3	7	0.1019	7	0.0695	7	0.0691
IS3/ecd	7	0.0984	7	0.0000	0	0.0000
1122PCEa	6	0.1154	6	0.0779	0	0.0000

Press 'ENTER' to continue viewing list?

11DCEa	7	0.0917	7	0.0307	0	[illegible]
IS-1/ecd	7	0.1293	7	0.0000	0	0.0000
CHCl3	6	0.1319	6	0.0257	6	0.0274
111TCEa	7	0.0957	7	0.1145	7	0.0910
CCl4	7	0.0829	7	0.1066	7	0.0663
12DCEa	4	0.0991	4	0.0670	4	0.0415
TCE/ecd	7	0.0771	7	0.0977	7	0.0320
12DCPa	7	0.1028	7	0.1409	7	0.0856
BrCl2methane	6	0.1083	6	0.1598	6	0.1075
c13DCPe	7	0.2924	7	0.3251	7	0.3250
IS#2/ecd	7	0.1185	7	0.0000	0	0.0000
112TCEa	6	0.2419	6	0.1179	6	0.1268
PCE/ecd	7	0.0673	7	0.1180	7	0.1007
Br2Clmethane	7	0.1086	7	0.1757	7	0.1394
CHBr3	7	0.1019	7	0.0695	7	0.0691
IS3/ecd	7	0.0984	7	0.0000	0	0.0000
1122PCEa	6	0.1154	6	0.0779	0	0.0000

Press 'ENTER' to continue viewing list?

RT file C:\NELSON\dapcch.RTW Version Number= 2 To be updated 07-23-1991 12:30:0[illegible]

**********RETENTION TIME WINDOWS USING 3 METHODS**********

Degrees of freedom (DF) & retention time windows for each method as follows:

Compound Name	DF	EXT.STD.RTW	DF	RRT meth.RTW	DF	RT Index RTW
IS3#2	7	0.0910	7	0.0479	0	0.0000

Press 'ENTER' to continue or type 'V' to VIEW list again?

BPDR 0017988

VOLATILE ORGANICS ANALYSIS DATA SHEET

16187 - 3-110-05

CFX17 S-16

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Code: CLAYTN Case No.: 16187 SAS No.: _____ SDG No.: CFX17

Matrix: (soil/water) SOIL Lab Sample ID: 890402

Sample wt/vol: 4.0 (g/mL) G Lab File ID: E5272

Level: (low/med) MED Date Received: 04/12/91

% Moisture: not dec. 23 Date Analyzed: 04/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1600	U
74-83-9	Bromomethane	1600	U
75-01-4	Vinyl Chloride	1600	U
75-00-3	Chloroethane	1600	U
75-09-2	Methylene Chloride	1100	B
67-64-1	Acetone	3700	B
75-15-0	Carbon Disulfide	240	J
75-35-4	1,1-Dichloroethene	810	U
75-34-3	1,1-Dichloroethane	1600	
540-59-0	1,2-Dichloroethene (total)	1700	
67-66-3	Chloroform	810	U
107-06-2	1,2-Dichloroethane	810	U
78-93-3	2-Butanone	3900	
71-55-6	1,1,1-Trichloroethane	380	J
56-23-5	Carbon Tetrachloride	810	U
108-05-4	Vinyl Acetate	1600	U
75-27-4	Bromodichloromethane	810	U
78-87-5	1,2-Dichloropropane	810	U
10061-01-5	cis-1,3-Dichloropropene	810	U
79-01-6	Trichloroethene	1200	
124-48-1	Dibromochloromethane	810	U
79-00-5	1,1,2-Trichloroethane	810	U
71-43-2	Benzene	620	J
10061-02-6	Trans-1,3-Dichloropropene	810	U
75-25-2	Bromoform	810	U
108-10-1	4-Methyl-2-Pentanone	4500	
591-78-6	2-Hexanone	1600	U
127-18-4	Tetrachloroethene	380	J
79-34-5	1,1,2,2-Tetrachloroethane	810	U
108-88-3	Toluene	2700	
108-90-7	Chlorobenzene	810	U
100-41-4	Ethylbenzene	370	J
100-42-5	Styrene	810	U
1330-20-7	Total Xylenes	1800	

FORM I VOA 1/87 Rev.

BPDR 0017989

16187 3/11/03

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CFX1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 16187 SAS No.: _____ SDG No.: CFX12

Matrix: (soil/water) SOIL Lab Sample ID: 890402

Sample wt/vol: 4.0 (g/mL) G Lab File ID: E5272

Level: (low/med) MED Date Received: 04/12/91

% Moisture: not dec. 23 Date Analyzed: 04/16/91

Column (pack/cap) PACK Dilution Factor: 1.0

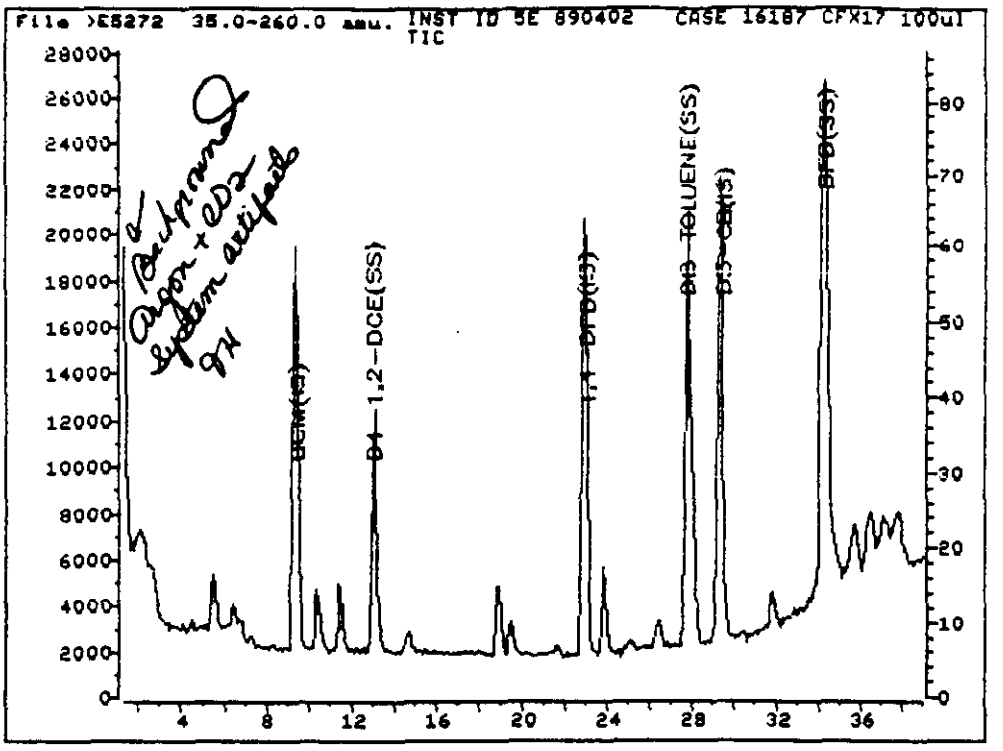
Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

BPDR 0017990



S-16 Chromatogram Sk 7/23/91

MS data file header from : >E5272

Sample: INST ID SE 890402 Operator: TERMINAL60MS 4/16/91 5:13
Misc : CASE 16187 CFX17 100ul IS=50ppb 44106
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: VOAME5 Tuning file: MANTU5 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 250 Transfer line temp. : 0

Chromatographic temperatures :	45.	220.	0.	0.	0.
Chromatographic times, min. :	4.0	6.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	0.0	0.0	.1	0.0

1H 16187 S-110-14

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFX26 S-16 dup

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Code: CLAYTN Case No.: 16187 SAS No.: _____ SDG No.: CFX12

atrix: (soil/water) SOIL Lab Sample ID: 890422

Sample wt/vol: 4.0 (g/mL) G Lab File ID: E5261

Level: (low/med) MED Date Received: 04/12/91

% Moisture: not dec. 39 Date Analyzed: 04/15/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	2000	U
74-83-9	Bromomethane	2000	U
75-01-4	Vinyl Chloride	2000	U
75-00-3	Chloroethane	2000	U
75-09-2	Methylene Chloride	1100	B
67-64-1	Acetone	7900	B
75-15-0	Carbon Disulfide	1000	U
75-35-4	1,1-Dichloroethene	1000	U
75-34-3	1,1-Dichloroethane	1000	J
540-59-0	1,2-Dichloroethene (total)	1800	
67-66-3	Chloroform	1000	U
107-06-2	1,2-Dichloroethane	210	J
78-93-3	2-Butanone	4400	
71-55-6	1,1,1-Trichloroethane	190	J
56-23-5	Carbon Tetrachloride	1000	U
108-05-4	Vinyl Acetate	2000	U
75-27-4	Bromodichloromethane	1000	U
78-87-5	1,2-Dichloropropane	1000	U
10061-01-5	cis-1,3-Dichloropropene	1000	U
79-01-6	Trichloroethene	1100	
124-48-1	Dibromochloromethane	1000	U
79-00-5	1,1,2-Trichloroethane	1000	U
71-43-2	Benzene	650	J
10061-02-6	Trans-1,3-Dichloropropene	1000	U
75-25-2	Bromoform	1000	U
108-10-1	4-Methyl-2-Pentanone	5100	
591-78-6	2-Hexanone	2000	U
127-18-4	Tetrachloroethene	330	J
79-34-5	1,1,2,2-Tetrachloroethane	1000	U
108-88-3	Toluene	2800	
108-90-7	Chlorobenzene	1000	U
100-41-4	Ethylbenzene	330	J
100-42-5	Styrene	1000	U
1330-20-7	Total Xylenes	1800	

FORM I VOA 1/87 Rev.

BPDR 0017992

1E 10101-0-111-14

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CFX26 S-16 [illegible] 7/24

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Code: CLAYTN Case No.: 16187 SAS No.: _____ SDG No.: CFX12

Matrix: (soil/water) SOIL Lab Sample ID: 890422

Sample wt/vol: 4.0 (g/mL) G Lab File ID: E5261

Level: (low/med) MED Date Received: 04/12/91

% Moisture: not dec. 39 Date Analyzed: 04/15/91

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

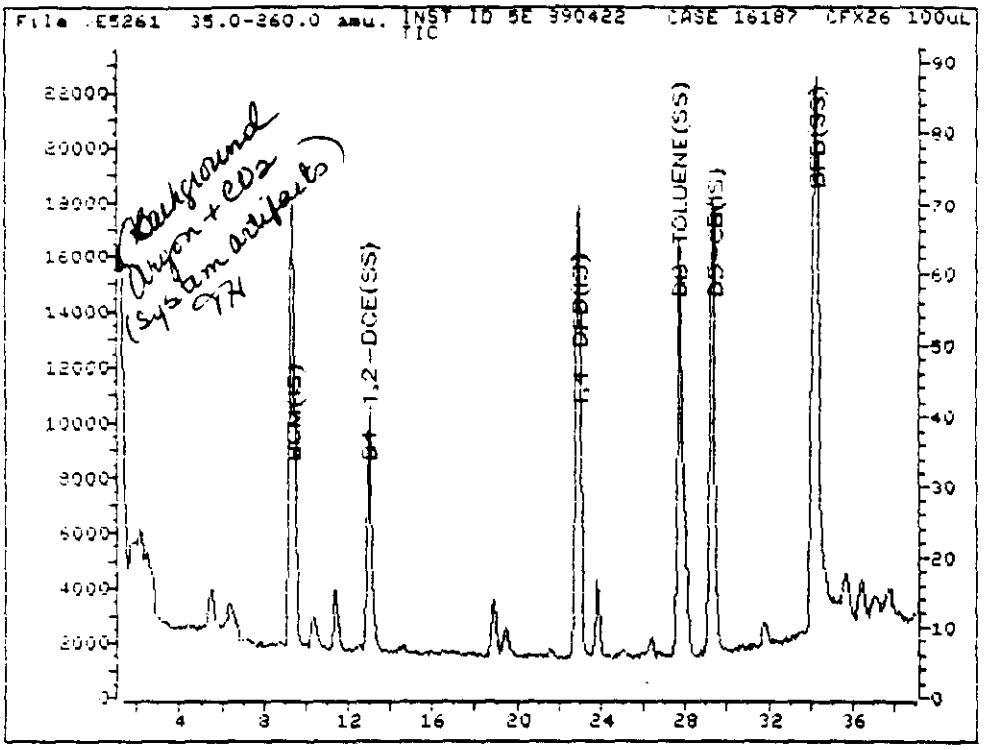
FORM I VOA-TIC 1/87 Rev.

391

BPDR 0017993

16187 · 3-112-29

5-16 dup
[illegible] 7/2[illegible]
C[illegible]L
([illegible])



MS data file header from : >E5261

Sample: INST ID 5E 890422 Operator: TERMINAL60MS 4/15/91 17:29
Misc : CASE 16187 CFX26 100uL M/S IS=50ppb 44106
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: VOAME5 Tuning file: MANTU5 No. of extra records: 2
Source temp.: 0 Analyzer temp.: 250 Transfer line temp. : 0

Chromatographic temperatures :	45.	220.	0.	0.	0.
Chromatographic times, min. :	4.0	6.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	0.0	0.0	.1	0.0

[illegible] 4/18/91

1A 16187 · 3-110-15

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFX27 S-12

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Code: CLAYTN Case No.: 16187 SAS No.: _____ SDG No.: CFX12

Matrix: (soil/water) SOIL Lab Sample ID: 890424

Sample wt/vol: 5.0 (g/mL) G Lab File ID: B7977

Level: (low/med) LOW Date Received: 04/12/91

% Moisture: not dec. 29 Date Analyzed: 04/15/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	4	BJ
67-64-1	Acetone	15	B
75-15-0	Carbon Disulfide	6	BJ
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	Trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	2	BJ
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Total Xylenes	7	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CFX27 5-12

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 16187 SAS No.: _____ SDG No.: CFX12

Matrix: (soil/water) SOIL Lab Sample ID: 890424

Sample wt/vol: 5.0 (g/mL) G Lab File ID: B7977

Level: (low/med) LOW Date Received: 04/12/91

% Moisture: not dec. 29 Date Analyzed: 04/15/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

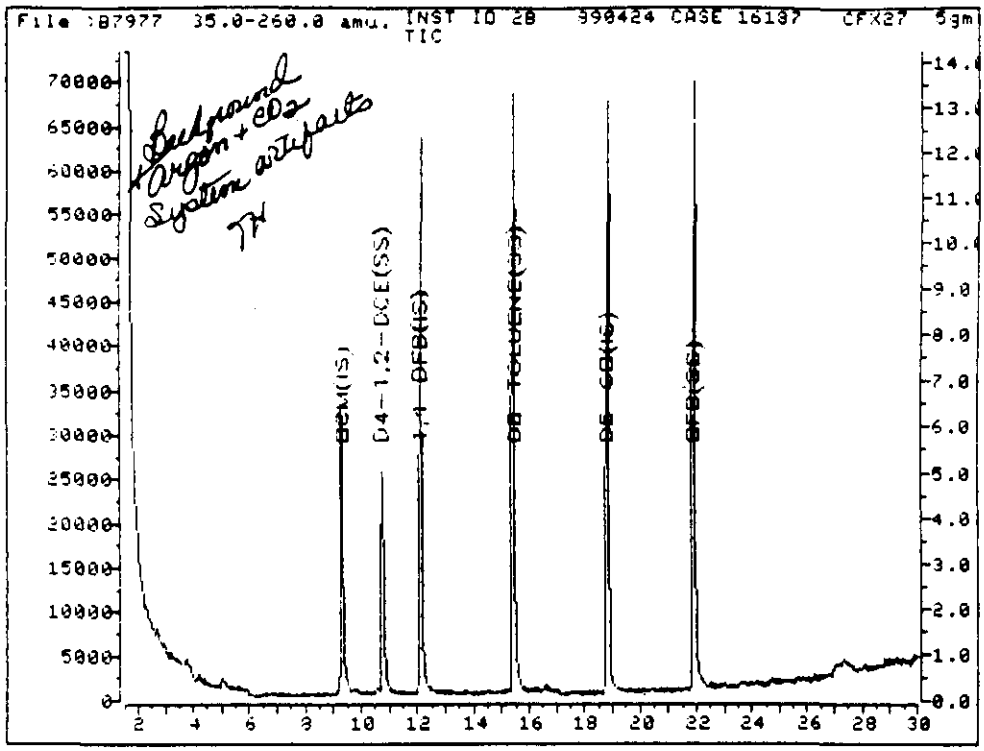
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

BPDR 0017996

16187 · 3 112-30

S-12 Pek 7/24/91



MS data file header from : >87977

Sample: INST ID 2B 890424 Operator: TERMINAL49MS 4/15/91 5:44
Misc : CASE 16187 CFX27 5gm LOW SOIL IS,SS=50ppb(44106,44180)
Sys. #: 2 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: VOAME2 Tuning file: MTVOA2 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 Transfer line temp. : 0

Chromatographic temperatures :	0.	0.	0.	0.	0.
Chromatographic times, min. :	0.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	0.0	0.0	0.0	0.0	0.0

TH 4/19/91

1H

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

16187 · 3-110-16

CFX28 S13

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Code: CLAYTN Case No.: 16187 SAS No.: _____ SDG No.: CFX13

Matrix: (soil/water) SOIL Lab Sample ID: 890426

Sample wt/vol: 5.0 (g/mL) G Lab File ID: B7979

Level: (low/med) LOW Date Received: 04/12/91

% Moisture: not dec. 17 Date Analyzed: 04/15/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	23	B
75-15-0	Carbon Disulfide	5	BJ
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	8	J
71-55-6	1,1,1-Trichloroethane	1	J
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	2	BJ
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	1	J

FORM I VOA 1/87 Rev.

BPDR 0017998

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CFX28 S-13

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Code: CLAYTN Case No.: 16187 SAS No.: _____ SDG No.: CFX18

Matrix: (soil/water) SOIL Lab Sample ID: 890426

Sample wt/vol: 5.0 (g/mL) G Lab File ID: B7979

Level: (low/med) LOW Date Received: 04/13/91

% Moisture: not dec. 17 Date Analyzed: 04/15/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	C11H20 Alkene	27.99	7.4	J
2.	Unknown	29.67	16	J

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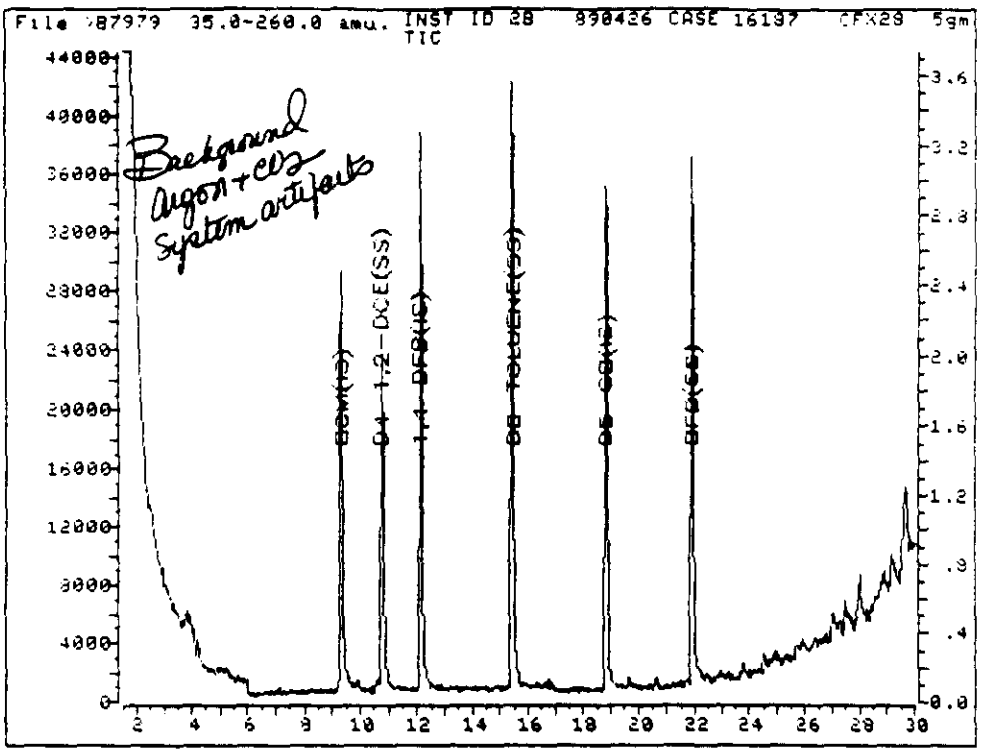

MS data file header from : >87979

Sample: INST ID 28 890426 Operator: TERMINAL49MS 4/15/91 8:06
Misc : CASE 16187 CFX28 5gm LOW SOIL IS,SS=50ppb(44106,44180)
Sys. #: 2 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: VOAME2 Tuning file: MTVOA2 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 Transfer line temp. : 0

Chromatographic temperatures :	0.	0.	0.	0.	0.
Chromatographic times, min. :	0.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	0.0	0.0	0.0	0.0	0.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

16187 · 3-110-17

EPA SAMPLE NO.

CFX29 S-13AG1C 7/1/91

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Code: CLAYTN Case No.: 16187 SAS No.: _____ SDG No.: CFX12

Matrix: (soil/water) SOIL Lab Sample ID: 890428

Sample wt/vol: 5.0 (g/mL) G Lab File ID: B7978

Level: (low/med) LOW Date Received: 04/12/91

% Moisture: not dec. 19 Date Analyzed: 04/15/91

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	3	BJ
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	6	BJ
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	0.7	J
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	1	BJ
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

1E 16187 03-111-17

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CFX29 S-BACK

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Code: CLAYTN Case No.: 16187 SAS No.: _____ SDG No.: CFX13

Matrix: (soil/water) SOIL Lab Sample ID: 890428

Sample wt/vol: 5.0 (g/mL) G Lab File ID: B7978

Level: (low/med) LOW Date Received: 04/12/91

% Moisture: not dec. 19 Date Analyzed: 04/15/91

Column (pack/cap) CAP Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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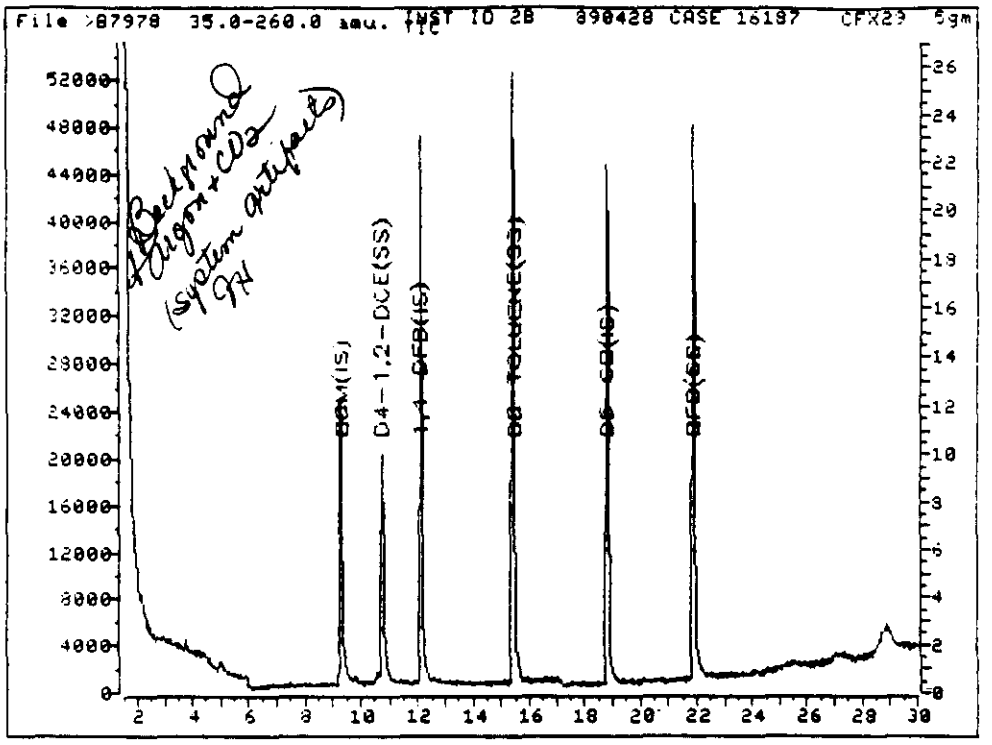
S-BACK 7/24/91



MS data file header from : >87978

Sample: INST ID 2F 890428 Operator: TERMINAL49MS 4/15/91 6:24
Misc : CASE 16187 CFX29 5gm LOW SOIL IS,SS=50ppb(44106,44180)
Sys. #: 2 MS model: 87 SW/HW rev.: IA ALS # : 0
Method file: VOAME2 Tuning file: MTVOA2 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 0 Transfer line temp. : 0

Chromatographic temperatures :	0.	0.	0.	0.	0.
Chromatographic times, min. :	0.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	0.0	0.0	0.0	0.0	0.0

JH 4/19/91

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFX10 Trip Blank 7/24/91

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 16187 SAS No.: _____ SDG No.: CFX01

Matrix: (soil/water) WATER Lab Sample ID: 890374

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E5283

Level: (low/med) LOW Date Received: 04/12/91

% Moisture: not dec. ____ Date Analyzed: 04/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	16	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	Trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

16187 · 3 = 111-08

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CFX10 Trip Blank 4/16

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 16187 SAS No.: _____ SDG No.: CFX01

Matrix: (soil/water) WATER Lab Sample ID: 890374

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E5283

Level: (low/med) LOW Date Received: 04/12/91

% Moisture: not dec. ____ Date Analyzed: 04/16/91

Column (pack/cap) PACK Dilution Factor: 1.0

N ;er TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

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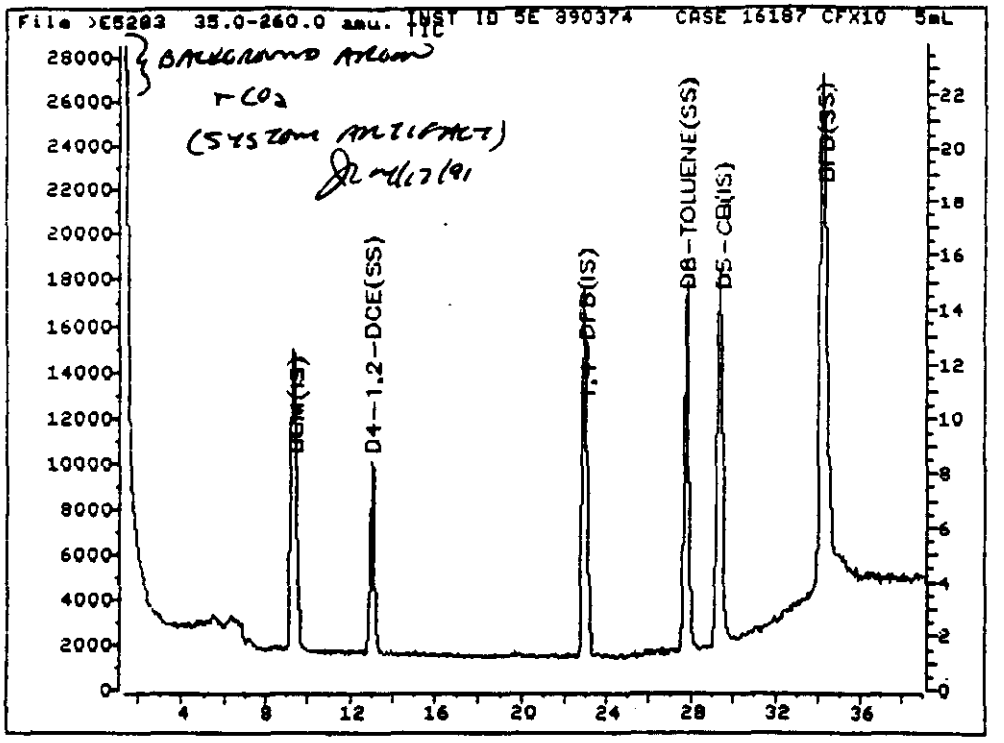
Trip blank 7/24/91 J.L.

ORIGINAL (RED)



MS data file header from : >E5283

Sample: INST ID SE 890374 Operator: TERMINAL60MS 4/16/91 16:43
Misc : CASE 16187 CFX10 5mL IS/SS=50ppb Sul 44106,44180
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: VOAMES Tuning file: MANTUS No. of extra records: 2
Source temp.: 0 Analyzer temp.: 250 Transfer line temp. : 0

Chromatographic temperatures :	45.	220.	0.	0.	0.
Chromatographic times, min. :	4.0	6.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	6.0	0.0	0.0	.1	0.0

Raw Data from 4/9/91

Number	Sample Name
9	Initial Calibration # 1
12	Initial Calibration # 2
6	Initi[illegible]
7	Initi[illegible]

ORIGINAL (RED)

****** INTERNAL STANDARD TABLE ******

********** 06-17-1991 10:18:10 Version 5.0 **********

* Sample Name: IC#1-DCL&KET-100 Data File: E:C409H9 *
* Date: 04-09-1991 11:54:36 Method: CAPINH 06-17-1991 09:57:14 # 114 *
* Interface: 16 Cycle#: 9 Operator DQB Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *
* Detector 0: PID Detector 1: ECD *
* Misc. Information: #1/M603;#2/M610;tcl1/m067;IS/m616 *

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 30.00
Internal Standard Amount: 100
Sample Weight: 5.000000

PEAK NO	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	3.391		5.9087	0.1435%	151	29	5.3	2		5		3.9082E-02
2	3.592	CS2	576.8979	14.0078%	4985	1002	5.0	2	5	5	.2465	1.1573E-01
3	5.177	2-butanone	654.7967	15.8993%	1447	250	5.8	1	5	5	-.1199	4.5264E-01
4	5.980	c12DCE/VAc	7.1729	0.1742%	112	30	3.7	1	5	5	-.8127	6.4060E-02
5	6.401	IS-1/pid	100.0000	0.0000%	15352	2613	5.9	1	5	5	0	6.5137E-03
6	7.023		8.0229	0.1948%	205	38	5.4	1		5		3.9082E-02
7	7.475	benzene	3.6977	0.0898%	157	33	4.8	1	5	5	-.3134	2.3534E-02
8	9.050	IS-2/pid	100.0000	0.0000%	6505	1388	4.7	1	8	8	0	1.5373E-02
9	10.033	c13DCP	50.5784	1.2281%	160	36	4.4	1	8	8	.6036	3.1705E-01
10	10.214	4me2pent	750.4345	18.2214%	1565	308	5.1	2	8	8	0	4.7940E-01
11	10.445	toluene	6.7363	0.1636%	356	83	4.3	2	8	8	0	1.8896E-02
12	11.438	2-hexanone	527.1704	12.8003%	794	194	4.1	1	8	8	0	6.6366E-01
13	12.793	p&mxylene	3.6957	0.0897%	302	82	3.7	1	15	8	-.1501	1.2253E-02
14	7.364	oxyl/styrene	4.1417	0.1006%	234	59	4.0	1	15	8	0	1.7686E-02
15	.966	IS-3/pid	697.9676	16.9475%	16575	3688	4.5	3	15	8	0	4.2109E-02
16	14.277		81.3153	1.9744%	882	93	9.5	4		8		9.2238E-02
17	14.589	IS3#2	739.8758	17.9651%	9093	2007	4.5	2	15	8	-.0718	8.1368E-02

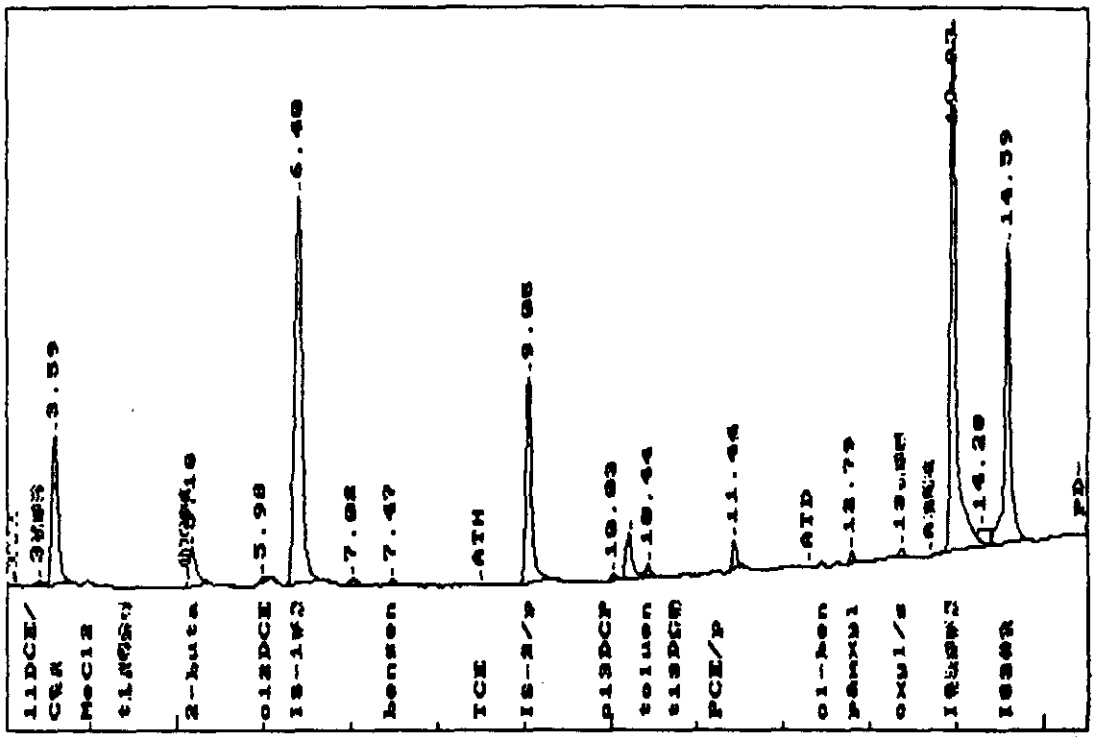
TOTAL AMOUNT = 4118.4126

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
11DCE/acet	3.30	IS-1/pid
MeCl2	4.00	IS-1/pid
t12DCEe	4.40	IS-1/pid
TCE	8.53	IS-2/pid
t13DCP	10.79	IS-2/pid
PCE/p	11.25	IS-2/pid
cl-benzene	12.46	IS-3/pid
eth-benzene	12.64	IS-3/pid

Areas, times, and heights stored in: E:C409H9.RTB
Data File = E:C409H9.PTS Printed on 04-09-1991 at 12:11:46
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 8532 uv High Value: 12463 uv Scale factor: 1.0

ORIGINAL (RED)



****** INTERNAL STANDARD TABLE ******

********** 04-14-1991 10:42:47 Version 5.0 **********

* Sample Name: IC#1-DCL&KET-100 Data File: e:d409h9 *
* Date: 04-09-1991 11:54:36 Method: DAPINH 04-14-1991 10:34:31 # 108 *
* Interface: 16 Cycle#: 9 Operator DQB Channel#: 1 Vial#: N.A. *
* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

****

* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *
* Detector 0: PID Detector 1: ECD *
* Misc. Information: #1/M603;#2/M610;tc11/m067;IS/m616 *

****

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 1.00
Internal Standard Amount: 100
Sample Weight: 1.000000

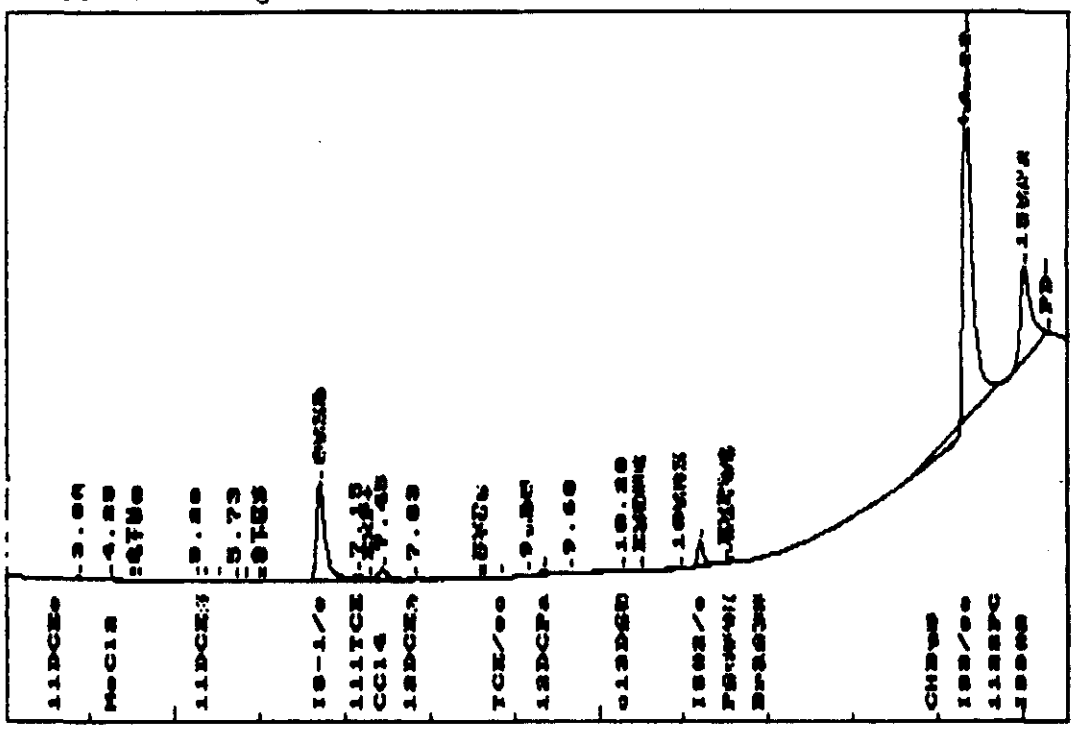
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	3.883		1.7150	0.2093%	1760	363	4.8	1		11		9.7430E-04
	4.254	MeC12	84.9164	10.3610%	782	154	5.1	1	11	11	-1.082	1.0859E-01
3	4.495		0.0252	0.0031%	26	16	1.6	1		11		9.7430E-04
4	4.595		0.0718	0.0088%	74	28	2.6	1		11		9.7430E-04
5	5.278		0.0851	0.0104%	87	39	2.2	2		11		9.7430E-04
6	5.358	11DCEa RS 4/14/91	0.6771	0.0826%	695	73	9.6	2		11		9.7430E-04
7	5.528	~~11DCEa~~	37.4686	4.5717%	160	51	3.1	2	11	11	1.508	2.3349E-01
8	5.729		0.0422	0.0052%	43	20	2.2	1		11		9.7430E-04
9	5.849		0.0416	0.0051%	43	22	2.0	1		11		9.7430E-04
10	6.050		0.2217	0.0271%	228	34	6.8	1		11		9.7430E-04
11	6.712	IS-1/ecd	100.0000	0.0000%	102638	14718	7.0	2	11	11	0	9.7430E-04
12	7.154	111TCEa	0.5205	0.0635%	7404	735	10.1	3	11	11	-.1494	7.0303E-05
13	7.455	CC14	0.1159	0.0141%	10026	1587	6.3	4	11	11	-.0149	1.1565E-05
14	7.826	12DCEa	92.3084	11.2630%	367	58	6.3	1	11	11	-.5320	2.5152E-01
15	8.659		0.7513	0.0917%	151	47	3.2	1		22		4.9918E-03
16	8.849	TCE/ecd	0.1154	0.0141%	349	72	4.8	1	22	22	.2513	3.3106E-04
17	9.160		4.2897	0.5234%	859	141	6.1	2		22		4.9918E-03
	9.361	12DCPa	361.9275	44.1604%	3189 ~~3738~~	841	5.8	2	22	22	.1250	9.6824E-02
19	9.682	BrC12methane	0.0721	0.0088%	587	19	30.3	2	22	22	.8509	1.2269E-04
20	10.284	c13DCPe	2.3230	0.2834%	405	28	14.3	1	22	22	0	5.7424E-03
21	10.966		0.9947	0.1214%	199	16	12.6	1		22		4.9918E-03
22	11.197	IS#2/ecd	100.0000	0.0000%	20033	3679	5.4	1	22	22	0	4.9918E-03
23	11.558	PCE/ecd	0.2033	0.0248%	3525	843	4.2	1	22	22	.2585	5.7684E-05
24	14.328	IS3/ecd	116.8576	14.2583%	409281	62397	6.6	1	24	22	0	2.8552E-04
25	15.020	IS3#2	113.8310	13.8890%	123446	13909	8.9	1	24	22	0	9.2212E-04

TOTAL AMOUNT = 819.5754

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
11DCEe/e	3.59	IS-1/ecd
CHCl3	6.88	IS-1/ecd
112TCEa	11.36	IS#2/ecd
Br2Clmethane	11.91	IS#2/ecd
CHBr3	13.95	IS3/ecd
1122PCEa	14.69	IS3/ecd

Areas, times, and heights stored in: E:D409H9.ATB
Data File = E:D409H9.PTS Printed on 04-09-1991 at 12:14:01
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 28617 uv High Value: 114595 uv Scale factor: 1.0



ORIGINAL (Red)

INTERNAL STANDARD TABLE

06-17-1991 10:19:31 Version 5.0

Sample Name: IC#2-20MOST-300D&K Data File: E:C409H12

Date: 04-09-1991 14:36:10 Method: DAPINH 06-17-1991 09:57:14 # 114

Interface: 16 Cycle#: 12 Operator DOB Channel#: 0 Vial#: N.A.

Stopping Peak Width: 6 Threshold: .5 Area Threshold: 50

Instrument Type: VARIAN 3300 Column Type: db-624

Solvent Description: He 7.00ml/min

Conditions: 40 -55%s-140@10 spt37.6:1 Mkup30 N2 FID:11/ECD:1

Detector 0: FID Detector 1: ECD

Proc. Informations: #1/M603;#2/M610;tc11/m067;IS/m616

Starting Delay: 3.00 Ending retention time: 13.50

Area reject: 0 One sample per 0.602 sec.

Amount injected: 1.00 Dilution factor: 20.00

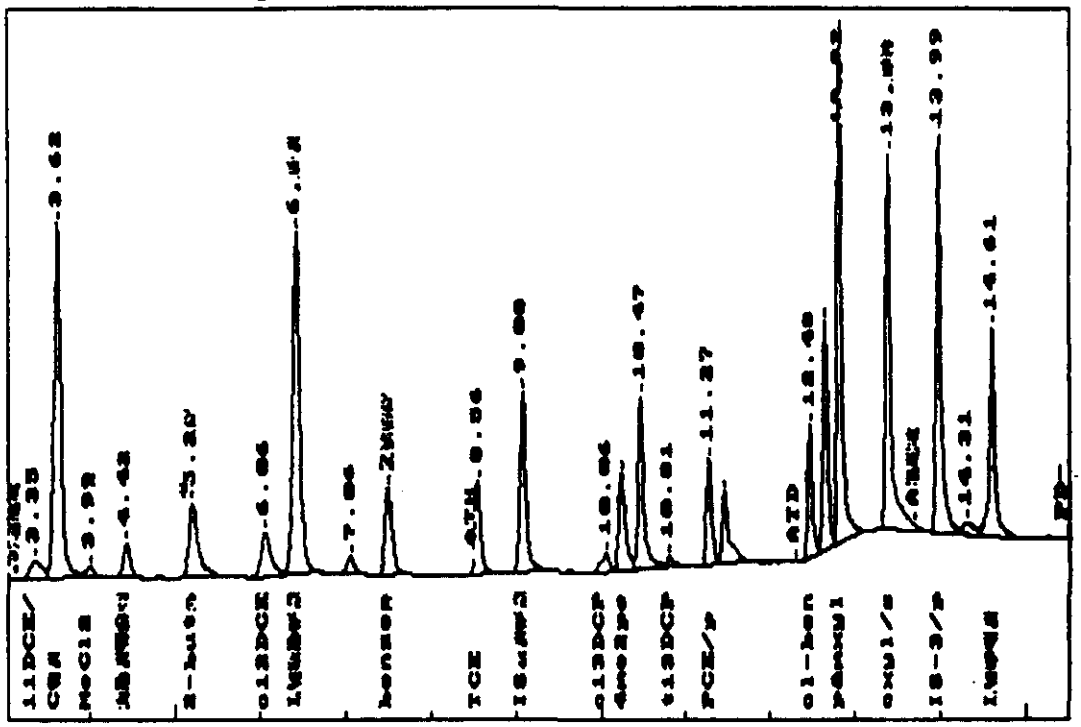
Internal Standard Amount: 100

Sample Weight: 5.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	3.351	11DCE/acet	141.9181	1.1621%	1639	179	9.1	2	0	7	1.829	8.6595E-02
2	3.622	CS2	1713.7369	14.0326%	20215	3720	5.4	2	0	7	1.404	8.4777E-02
3	3.993	MeCl2	1950.4740	15.9710%	736	104	7.1	2	0	7	.2518	2.6485E+00
4	4.425	t12DCEe	82.4456	0.6751%	2061	354	5.8	1	0	7	.9153	4.0010E-02
5	5.197	2-butanone	1854.1560	15.1824%	5592	766	7.3	1	0	7	.5825	3.3159E-01
6	6.060	c12DCE/VAc	177.5932	1.4542%	3784	450	8.4	2	0	7	.8347	4.6928E-02
7	6.421	IS-1/pid	100.0000	0.0000%	20957	3597	5.8	2	0	7	.6289	4.7717E-03
8	7.063		29.0591	0.2379%	1015	172	5.9	1		7		2.8630E-02
9	7.505	benzene	37.7831	0.7188%	5092	909	5.6	1	0	7	.4026	1.7240E-02
10	8.558	TCE	67.9503	0.5564%	4590	967	4.7	1	11	11	.0202	1.4805E-02
11	9.080	IS-2/pid	100.0000	0.0000%	9329	1894	4.9	1	11	11	0	1.0719E-02
12	10.063	c13DCP	267.7009	2.1920%	1211	179	6.8	2	11	11	.5709	2.2106E-01
13	10.234	4me2pent	1846.4168	15.1190%	5524	1009	5.5	2	11	11	-.1356	3.3427E-01
14	10.475	toluene	111.8341	0.9157%	8488	1812	4.7	2	11	11	0	1.3175E-02
15	10.806	t13DCP	99.3995	0.8139%	637	112	5.7	2	11	11	-.1460	1.5609E-01
	1.267	PCE/p	70.6701	0.5787%	4707	1107	4.3	2	11	11	-.1536	1.5013E-02
17	11.458	2-hexanone	1989.2542	16.2886%	4299	743	5.8	2	11	11	-.0689	4.6275E-01
18	12.482	cl-benzene	95.8793	0.7851%	5429	1387	3.9	2	22	11	0	1.7661E-02
19	12.652	eth-benzene	94.6101	0.7747%	8956	2411	3.7	2	22	11	0	1.0564E-02
20	12.823	p&mxylene	188.7496	1.5455%	22092	5632	3.9	2	22	11	0	8.5439E-03
21	13.395	oxyl/styrene	234.2231	1.9179%	18993	3946	4.8	2	22	11	0	1.2332E-02
22	13.996	IS-3/pid	475.6090	3.8944%	16199	4188	3.9	3	22	11	0	2.9361E-02
23	14.308		69.9516	0.5728%	1088	126	8.6	4		11		6.4314E-02
24	14.609	IS3#2	563.1508	4.6112%	9926	2197	4.5	2	22	11	0	5.6735E-02

TOTAL AMOUNT = 12212.5635

Areas, times, and heights stored in: E:C409H12.ATB
Data File = E:C409H12.PTS Printed on 04-09-1991 at 14:55:34
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 8527 uv High Value: 14537 uv Scale factor: 1.0



Areas, times, and heights stored in: e:d409h12.ATB

```
******     INTERNAL STANDARD TABLE     ******
******************** 04-14-1991 10:12:29 Version 5.0 ********************
* Sample Name: IC#2-20MOST-300D&K                Data File: e:d409h12      *
* Date: 04-09-1991 14:36:10 Method: DAPINH 04-14-1991 09:58:25  #  104    *
* Interface: 16  Cycle#:  12   Operator DQB Channel#: 1    Vial#: N.A.     *
* Starting Peak Width:  6   Threshold: .5  Area Threshold: 50              *
*****************************************************************************
* Instrument Type: VARIAN 3300          Column Type: db-624                 *
*              Solvent Description: He 7.00ml/min                           *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1             *
*            Detector 0: PID                  Detector 1: ECD               *
* Misc. Information: #1/M603;#2/M610;tc11/m067;IS/m616                      *
*****************************************************************************
Starting Delay:    3.00                    Ending retention time:    15.50
Area reject:        0                      One sample per    0.602 sec.
Amount injected:        1.00               Dilution factor:        1.00
Internal Standard Amount:  100
Sample Weight:          1.000000
```

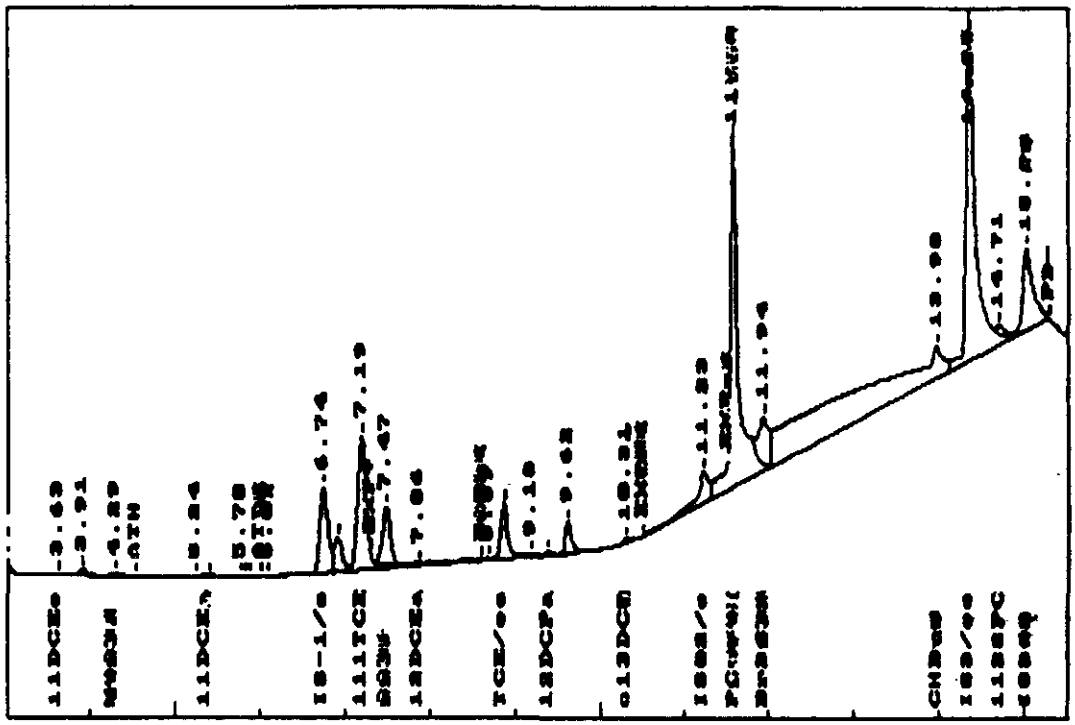
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
	3.632	11DCEe/e	1.0639	0.0292%	1118	193	5.8	1	11	11	.1277	9.5166E-04
2	3.913		6.1532	0.1687%	6466	1125	5.7	1		11		9.5166E-04
3	4.294	MeCl2	288.8490	7.9211%	3070	447	6.9	1	11	11	0	9.4100E-02
4	5.237		0.0979	0.0027%	103	40	2.6	2		11		9.5166E-04
5	5.398	11DCEa	337.1538	9.2457%	2043	238	8.6	2	11	11	.4110	1.6503E-01
6	5.779		0.2474	0.0068%	260	39	6.6	2		11		9.5166E-04
7	5.829		0.0955	0.0026%	100	30	3.3	2		11		9.5166E-04
8	5.880		0.0393	0.0011%	41	13	3.2	2		11		9.5166E-04
9	6.020		0.0636	0.0017%	67	31	2.1	1		11		9.5166E-04
10	6.090		0.0699	0.0019%	73	22	3.3	1		11		9.5166E-04
11	6.742	IS-1/ecd	100.0000	0.0000%	105080	16216	6.5	2	11	11	0	9.5166E-04
12	6.913	CHCl3	20.6745	0.5670%	48098	6631	7.3	2	11	11	.1418	4.2984E-04
13	7.194	111TCEa	62.0693	1.7021%	193909	25020	7.8	3	11	11	0	3.2009E-04
14	7.475	CCl4	3.6813	0.1010%	67401	10913	6.1	4	11	11	-.0146	5.4862E-05
15	7.856	12DCEa	182.0034	4.9910%	1153	203	5.7	4	11	11	.3639	1.5785E-01
17	8.689		183.0522	5.0198%	11201	248	45.1	2		22		1.6343E-02
.	8.859	TCE/ecd	66.2957	1.8180%	60979	10381	5.9	3	22	22	0	1.0872E-03
18	9.181		23.6119	0.6475%	1445	298	4.8	4		22		1.6343E-02
19	9.381	12DCPa	1176.0038	32.2493%	3411	667	5.1	2	22	22	0	3.4472E-01
20	9.622	BrCl2methane	12.0912	0.3316%	30019	5932	5.1	1	22	22	0	4.0279E-04
21	10.314	c13DCPe	43.2354	1.1856%	3226	648	5.0	1	22	22	0	1.3402E-02
22	11.227	IS#2/ecd	100.0000	0.0000%	2591		2.4	2	22	22	0	1.6343E-02
23	11.579	PCE/ecd	65.3451	1.7919%	304465	61620	4.9	3	22	22	0	2.1462E-04
24	11.940	Br2Clmethane	7.2335	0.1984%	13280	3124	4.3	4	22	22	0	5.4469E-04
25	13.976	CHBr3	73.9752	2.0286%	47343	3227	5.4	2	26	22	0	4.2654E-03
26	14.348	IS3/ecd	498.3953	13.6674%	423606	63654	6.7	3	26	22	0	1.1766E-03
27	14.709	1122PCEa	84.8419	2.3266%	5904	932	6.3	4	26	22	0	1.4370E-02
28	15.030	IS3#2	510.2549	13.9926%	131240	15115	8.7	2	26	22	0	3.8880E-03

TOTAL AMOUNT = 3646.5979

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
112TCEa	11.39	IS#2/ecd

Areas, times, and heights stored in: E:D409H12.ATB
Data File = E:D409H12.PTS Printed on 04-09-1991 at 14:57:50
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 27625 uv High Value: 133714 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

06-17-1991 10:20:50 Version 5.0

Sample Name: IC#3-80MOST-900DCL Data File: [illegible]

Date: 04-09-1991 10:41:20 Method: [illegible] 06-17-1991 09:57:14 # 1.4

Instrument: 16 Cycle#: 6 Operator: [illegible] Channel#: 0 Vial#: N.A.

Starting Peak Width: 6 Threshold: .5 Area Threshold: 50

Instrument Type: VARIAN 3300 Column Type: [illegible]

Solvent Description: He 7.00ml/min

Conditions: [illegible] 40:10 sp137.6:1 Mkup33 N2 PID:1:1/ECD:1

Detector 0: PID Detector 1: ECD

Misc. Information: #1/M603;#2/M610;tcl1/m067;IS/m616

Starting Delay: 7.00 Ending retention time: 15.50

Area rejects: 0 One sample per 0.602 sec.

Amount injected: 1.00 Dilution factor: 30.00

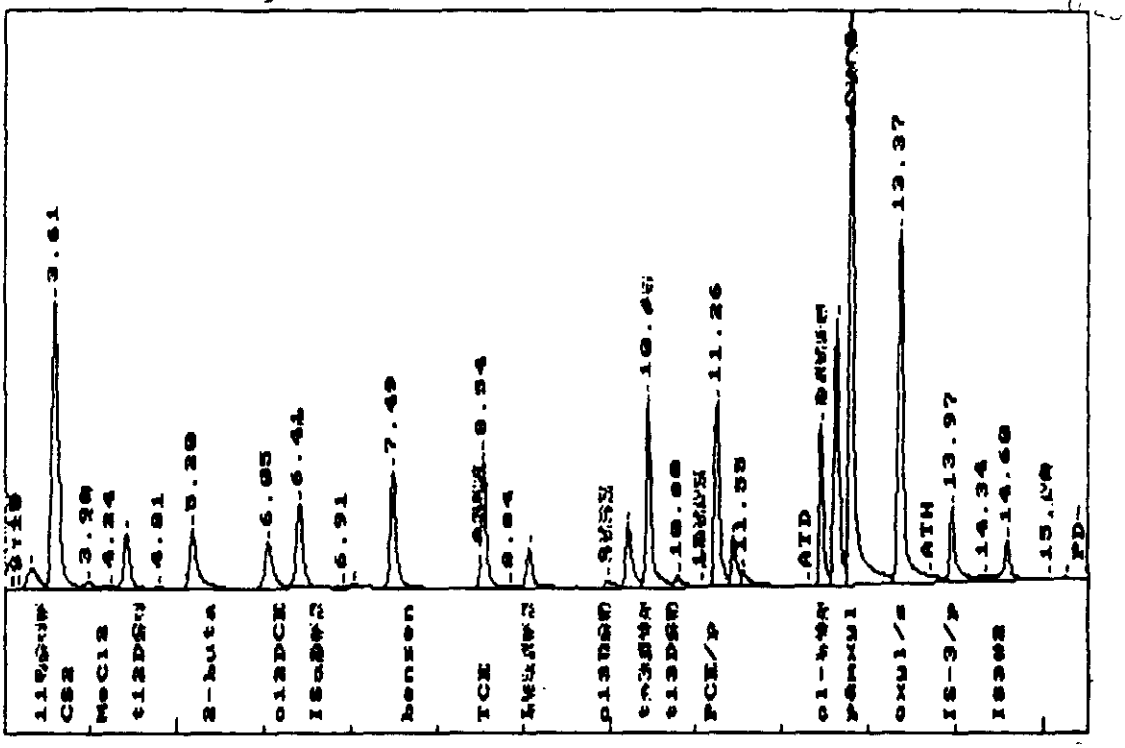
Internal Standard Amount: 100

Sample weight: 5.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	3.191		1.2804	0.0035%	62	18	3.4	2		10		2.0734E-02
2	3.331	11DCE/acet	610.4124	1.6727%	9734	1213	8.0	2	10	10	.7442	6.2712E-02
3	3.612	CS2	5431.3213	14.8831%	88464	16536	5.3	3	10	10	.6488	6.1396E-02
4	3.983	MeCl2	5366.2939	14.7049%	2798	381	7.3	4	10	10	-.4694	1.9181E+00
5	4.244		15.4255	0.0423%	744	99	7.5	4		10		2.0734E-02
6	4.425	t12DCEe	497.9852	1.3643%	17183	3224	5.3	3	10	10	.4415	2.8975E-02
7	4.806		11.2305	0.0308%	542	81	6.6	4		10		2.0734E-02
8	5.197	2-butanone	5375.6604	14.7311%	22386	3470	6.5	1	10	10	.1103	2.4014E-01
9	6.050	c12DCE/VAc	609.4410	1.6700%	17932	2656	6.8	2	10	10	.1951	3.3986E-02
10	6.411	IS-1/pid	100.0000	0.0000%	28937	4888	5.9	2	10	10	0	3.4557E-03
11	6.913		7.5353	0.0206%	363	69	5.3	2		10		2.0734E-02
12	7.043		19.8100	0.0543%	955	137	5.1	2		10		2.0734E-02
13	7.495	benzene	434.7892	1.1914%	34823	6854	5.1	1	10	10	-.2022	1.2486E-02
14	8.538	TCE	448.0544	1.2278%	34922	7829	4.5	3	16	16	-.1038	1.2830E-02
15	8.839		36.7320	0.1007%	659	90	7.3	4		16		5.5735E-02
[illegible]	9.070	IS-2/pid	100.0000	0.0000%	10765	2332	4.6	2	16	16	0	9.2892E-03
17	9.973	c13DCP	523.2191	1.4337%	2731	435	6.3	2	16	16	-.2212	1.9158E-01
18	10.224	4me2pent	5367.8145	14.7091%	18530	3671	5.0	2	16	16	-.1232	2.8968E-01
19	10.455	toluene	562.8910	1.5425%	49299	11040	4.5	2	16	16	-.1253	1.1418E-02
20	10.796	t13DCP	507.7477	1.3913%	3754	601	6.2	3	16	16	-.1284	1.3527E-01
21	11.067		11.6114	0.0318%	208	46	4.5	4		16		5.5735E-02
22	11.257	PCE/p	546.0833	1.4964%	41972	10696	3.9	2	16	16	-.1322	1.3011E-02
23	11.438	2-hexanone	5345.0083	14.6466%	13329	2918	4.7	2	16	16	-.1336	4.0102E-01
24	11.548		301.6650	0.8266%	5412	815	6.6	2		16		5.5735E-02
25	12.461	cl-benzene	511.5273	1.4017%	33421	9344	3.6	2	29	16	0	1.5305E-02
26	12.642	eth-benzene	555.9825	1.5235%	60733	15312	4.0	2	29	16	0	9.1546E-03
27	12.812	p&mxylene	1121.0955	3.0721%	151414	33290	4.5	2	29	16	0	7.4042E-03
28	13.274	oxyl/styrene	1052.7418	2.8848%	98507	20229	4.9	2	29	16	0	1.0687E-02
29	13.966	IS-3/pid	532.4262	1.4590%	20925	4316	4.8	3	29	16	0	2.5444E-02
30	14.338		93.6589	0.2566%	1680	189	8.9	4		16		5.5735E-02
31	14.599	IS3#2	573.2609	1.5709%	11660	2243	5.2	2	29	16	0	4.9167E-02
32	15.080		14.7652	0.0405%	265	25	10.6	2		16		5.5735E-02
33	15.261		5.6704	0.0155%	102	27	3.8	1		16		5.5735E-02

TOTAL AMOUNT = 36493.2460

Areas, times, and heights stored in: E:C409H6.ATB
Data File = E:C409H6.PTS Printed on 04-09-1991 at 10:58:42
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 8552 uv High Value: 42078 uv Scale factor: 1.0



Areas, times, and heights stored in: e:d409h6.ATB

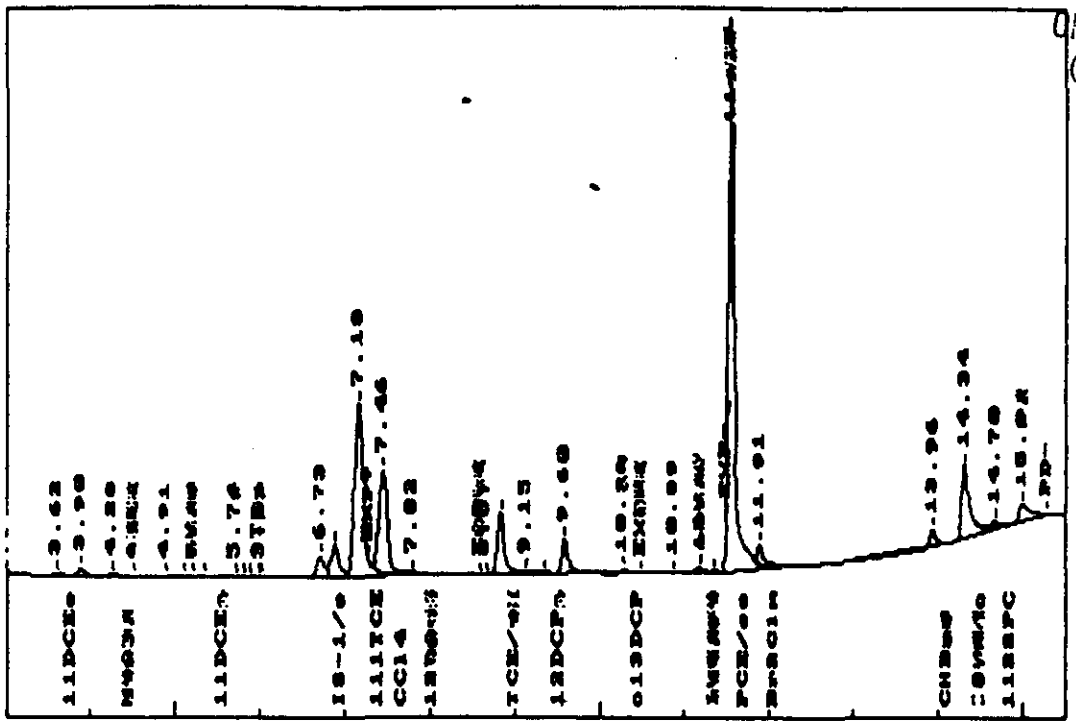
```
*****   INTERNAL STANDARD TABLE   *****
******************* 04-14-1991 09:55:36 Version 5.0 *********************
* Sample Name: IC#3-80MOST-900DCL                Data File: e:d409h6       *
* Date: 04-09-1991 10:41:20 Method: DAFINH 04-14-1991 09:44:24  #  103    *
* Interface: 16  Cycle#:  6   Operator DQB Channel#: 1    Vial#: N.A.     *
* Starting Peak Width:  6  Threshold: .5  Area Threshold: 50              *
***************************************************************************
* Instrument Type: VARIAN 3300          Column Type: db-624               *
*             Solvent Description: He 7.00ml/min                          *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 FIDr11/ECDr1           *
*          Detector 0: FID                    Detector 1: ECD             *
* Misc. Information: #1/M603;#2/M610;tcl1/m067;IS/m616                    *
***************************************************************************
Starting Delay:    3.00                 Ending retention time:   15.50
Area reject:         0                  One sample per   0.602 sec.
Amount injected:        1.00            Dilution factor:        1.00
Internal Standard Amount:  100
Sample Weight:          1.000000
```

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
	3.622	11DCEe/e	6.8552	0.1641%	6633	1151	5.8	1	12	12	-.0319	1.0335E-03
2	3.903		29.3777	0.7031%	28425	5679	5.0	1		12		1.0335E-03
3	4.284	MeCl2	1215.3204	29.0871%	7754	1241	6.2	1	12	12	0	1.5674E-01
4	4.906		0.0896	0.0021%	87	39	2.2	1		12		1.0335E-03
5	5.117		0.3328	0.0080%	322	44	7.3	2		12		1.0335E-03
6	5.227		0.4358	0.0104%	422	144	2.9	2		12		1.0335E-03
7	5.368	11DCEa	478.8052	11.4596%	3374	710	4.8	2	12	12	.1091	1.4191E-01
8	5.739		0.8659	0.0207%	838	132	6.3	2		12		1.0335E-03
9	5.829		0.4979	0.0119%	482	107	4.5	2		12		1.0335E-03
10	5.900		0.2757	0.0066%	267	58	4.6	2		12		1.0335E-03
11	6.040		0.0759	0.0018%	73	23	3.2	1		12		1.0335E-03
12	6.732	IS-1/ecd	100.0000	0.0000%	96757	15715	6.2	2	12	12	0	1.0335E-03
13	6.893	CHCl3	83.7405	2.0042%	174039	25005	7.0	2	12	12	-.1380	4.8116E-04
14	7.184	111TCEa	402.4476	9.6321%	1008712	137571	7.3	3	12	12	0	3.9897E-04
15	7.465	CCl4	36.5133	0.8739%	540413	83355	6.5	4	12	12	0	6.7566E-05
1ʌ	7.816	12DCEa	256.3911	6.1364%	3411	497	6.9	4	12	12	-.0356	7.5166E-02
.	8.669		0.8555	0.0205%	226	64	3.5	2		24		3.7916E-03
18	8.839	TCE/ecd	77.0662	1.8445%	305530	49866	6.1	3	24	24	.1377	2.5224E-04
19	9.150		51.2449	1.2265%	13515	1571	8.6	4		24		3.7916E-03
20	9.361	12DCPa	926.7724	22.1811%	11588	1389	8.3	4	24	24	.1250	7.9978E-02
21	9.602	BrCl2methane	15.3384	0.3671%	164135	27367	6.0	2	24	24	0	9.3450E-05
22	10.284	c13DCPe	38.5720	0.9232%	21631	3592	6.0	3	24	24	0	1.7832E-03
23	10.886		0.7783	0.0186%	205	57	3.6	1		24		3.7916E-03
24	11.197	IS#2/ecd	100.0000	0.0000%	26374	4136	6.4	2	24	24	0	3.7916E-03
25	11.358	112TCEa	85.3466	2.0427%	5091	1140	4.5	2	24	24	0	1.6766E-02
26	11.558	PCE/ecd	115.0366	2.7533%	2266787	450713	5.0	3	24	24	.2585	5.0749E-05
27	11.910	Br2Clmethane	11.4693	0.2745%	90759	15648	5.8	4	24	24	0	1.2637E-04
28	13.956	CHBr3	16.0672	0.3845%	+M610 ~~16236~~	12274	1.3	1	29	24	0	9.8961E-04
29	14.338	IS3/ecd	108.4723	2.5961%	403024	57775	7.0	3	29	24	0	2.6915E-04
30	14.699	1122PCEa	113.2397	2.7102%	32690	4677	7.0	4	29	24	0	3.4640E-03
31	15.020	IS3#2	105.9264	2.5352%	117431	13026	9.0	2	29	24	0	9.0203E-04

TOTAL AMOUNT = 4178.2100

Data File = E:D409H6.PTS Printed on 04-09-1991 at 11:01:06
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 28604 uv High Value: 484471 uv Scale factor: 1.0

ORIGINAL (RED)



INTERNAL STANDARD TABLE

06-17-1991 10:22:12 Version 5.0

ORIGINAL (RED)

Sample Name: IC#4-300MCST-0-OTH Data File: E:CHRT

Date: 04-09-1991 11:05:27 Method: DAFINH 06-17-1991 09:57:14 # 114

Interface: 16 Cycle#: 7 Operator DRB Channel#: 0 Vial#: N.A.

Starting Peak Width: 6 Threshold: .5 Area Threshold: 50

Instrument Type: VARIAN 3300 Column Type: db-624

Solvent Description: He 7.00ml/min

Run Name: 06-17-1991-140810 sptE7.6:1 MkupII MC FID+it/ECD+t

Detector 0: FID Detector 1: ECD

Method Information: #1-MeuC;#2/Me10;tcl1/m067;IS/m615

Pre Run: Delay: 3.00 Ending retention time: 15.50

Prep Replicas: 0 One sample per 0.502 sec.

Amount injected: 1.00 Dilution factor: 30.00

Internal Standard Amount: 100

Sample Weight: 5.000000

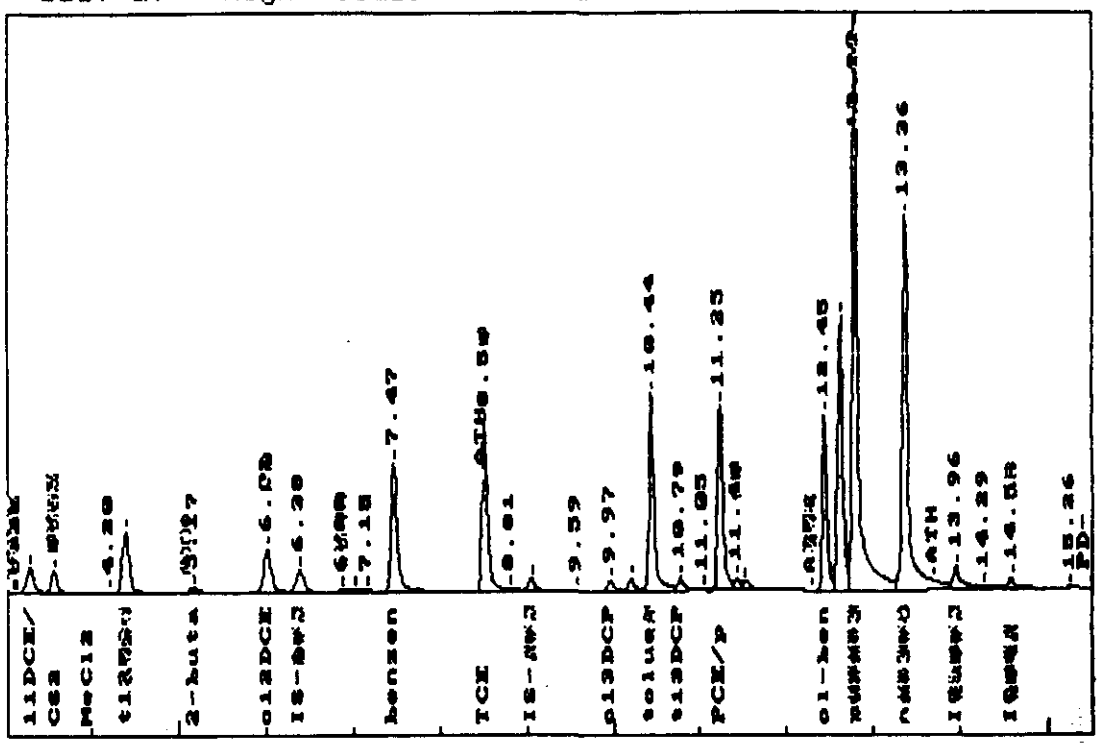
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	3.130		3.7286	0.0093%	201	47	4.2	2		8		1.8593E-02
2	3.291	11DCE/acet	1763.7625	4.4172%	31364	5769	5.4	2	8	8	0	5.6235E-02
3	3.572	CS2	1440.7708	3.6083%	26170	4905	5.3	2	8	8	0	5.5055E-02
4	4.204		8.7282	0.0219%	469	89	5.3	2		8		1.8593E-02
5	4.785	t12DCEe	2012.1379	5.0392%	77442	13880	5.6	2	8	8	0	2.5983E-02
6	5.167	2-butanone	1884.7474	4.7202%	8752	1166	7.5	1	8	8	0	2.1534E-01
7	5.919	c12DCE/VAc	1761.6428	4.4119%	57805	9928	5.8	2	8	8	0	3.0475E-02
8	6.381	IS-1/pid	100.0000	0.0000%	32270	5055	6.4	2	8	8	0	3.0988E-03
9	6.983		66.2185	0.1658%	3561	490	7.3	2		8		1.8593E-02
10	7.023		69.7653	0.1747%	3752	541	6.9	2		8		1.8593E-02
11	7.154		65.6128	0.1643%	3529	569	6.2	2		8		1.8593E-02
12	7.475	benzene	1814.2047	4.5435%	162040	29066	5.6	1	8	8	0	1.1196E-02
13	8.528	TCE	1811.9590	4.5380%	181061	37520	4.8	3	15	15	0	1.0008E-02
14	8.809		130.3325	0.3264%	2998	382	7.8	4		15		4.3474E-02
15	9.050	IS-2/pid	100.0000	0.0000%	13801	2761	5.0	2	15	15	0	7.2456E-03
	9.592		18.2674	0.0457%	420	94	4.5	1		15		4.3474E-02
17	9.973	c13DCP	1778.6273	4.4544%	11903	2312	5.1	2	15	15	0	1.4943E-01
18	10.214	4me2pent	3249.1370	8.1371%	14380	2834	5.1	2	15	15	0	2.2595E-01
19	10.445	toluene	1778.4398	4.4539%	199691	44852	4.5	2	15	15	0	8.9060E-03
20	10.786	t13DCP	1793.9740	4.4928%	17003	3031	5.6	3	15	15	0	1.0551E-01
21	11.047		59.7163	0.1496%	1374	250	5.5	4		15		4.3474E-02
22	11.247	PCE/p	1885.6666	4.4720%	175954	41936	4.2	3	15	15	0	1.0148E-02
23	11.428	2-hexanone	3912.6426	9.7988%	12509	2615	4.8	4	15	15	0	3.1280E-01
24	11.528		623.5458	1.5616%	14343	1921	7.5	2		15		4.3474E-02
25	12.451	cl-benzene	1793.2008	4.4909%	150205	39866	3.8	2	29	15	0	1.1938E-02
26	12.632	eth-benzene	1781.4309	4.4614%	249479	61976	4.0	2	29	15	0	7.1406E-03
27	12.803	p&mxylene	3560.4583	8.9168%	616497	131477	4.7	2	29	15	0	5.7753E-03
28	13.364	oxyl/styrene	3575.6528	8.9549%	428946	84380	5.1	2	29	15	0	8.3359E-03
29	13.956	IS-3/pid	693.9974	1.7380%	34968	4993	7.0	3	29	15	0	1.9847E-02
30	14.288		161.8799	0.4054%	3724	334	11.2	4		15		4.3474E-02
31	14.589	IS3#2	523.7128	1.3116%	13656	2280	6.0	2	29	15	0	3.8350E-02
32	15.261		5.6922	0.0143%	131	34	3.9	1		15		4.3474E-02

TOTAL AMOUNT = 39929.6800

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
MeCl2	3.98	IS-1/pid

Areas, times, and heights stored in: E:C409H7.AIB
Data File = E:C409H7.PTS Printed on 04-09-1991 at 11:22:48
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 8559 uv High Value: 140412 uv Scale factor: 1.0



Areas, times, and heights stored in: e:d409h7.ATB

p. 1 of 2

***** INTERNAL STANDARD TABLE *****

********** 04-14-1991 10:32:01 Version 5.0 **********

* Sample Name: IC#4-300MOST-0-OTH Data File: e:d409h7 *
* Date: 04-09-1991 11:05:27 Method: DAPINH 04-14-1991 10:23:18 # 107 *
* Interface: 16 Cycle#: 7 Operator DQB Channel#: 1 Vial#: N.A. *
* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

ORIGINAL (Red)

****

* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *
* Detector 0: PID Detector 1: ECD *
* Misc. Information: #1/M603;#2/M610;tc11/m067;IS/m616 *

****

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 1.00
Internal Standard Amount: 100
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
	3.582	11DCEe/e	20.8894	0.3557%	19862	3285	6.0	2	14	14	-.7906	1.0517E-03
2	3.863		8.3238	0.1417%	7914	1419	5.6	2		14		1.0517E-03
3	4.686		1.5932	0.0271%	1515	224	6.8	2		14		1.0517E-03
4	4.926		0.2645	0.0045%	251	34	7.5	2		14		1.0517E-03
5	5.137		0.1425	0.0024%	135	27	5.0	2		14		1.0517E-03
6	5.438	11DCEa	116.9850	1.9918%	464	55	8.4	1	14	14	1.346	2.5205E-01
7	5.619		0.1271	0.0022%	121	44	2.7	2		14		1.0517E-03
8	5.689		0.3534	0.0060%	336	106	3.2	2		14		1.0517E-03
9	5.749		0.4526	0.0077%	430	134	3.2	2		14		1.0517E-03
10	5.809		0.7410	0.0126%	705	117	6.0	2		14		1.0517E-03
11	5.940		0.9310	0.0159%	885	97	9.1	2		14		1.0517E-03
12	6.100		0.1714	0.0029%	163	49	3.3	2		14		1.0517E-03
13	6.321		0.6528	0.0111%	621	100	6.2	1		14		1.0517E-03
14	6.702	IS-1/ecd	100.0000	0.0000%	95082	16634	5.7	2	14	14	0	1.0517E-03
15	6.873	CHCl3	297.3672	5.0630%	607528	88570	6.9	2	14	14	0	4.8947E-04
17	7.154	111TCEa	1428.1392	24.3158%	3975790	606278	6.6	3	14	14	.0375	3.5921E-04
1	7.445	CCl4	149.2243	2.5407%	2439011	356263	6.8	4	14	14	.1937	6.1182E-05
18	8.639		5.5758	0.0949%	5302	793	6.7	2		14		1.0517E-03
19	8.819	TCE/ecd	300.7282	5.1203%	1280970	209105	6.1	3	25	25	0	2.3477E-04
20	9.341	12DCPa	1681.8146	28.6350%	24494	2494	9.8	4	25	25	0	6.8661E-02
21	9.592	BrCl2methane	60.1899	1.0248%	691834	115504	6.0	2	25	25	0	8.7001E-05
22	10.274	c13DCPe	210.5620	3.5851%	72733	13586	5.4	3	25	25	0	2.8950E-03
23	10.906		1.1733	0.0200%	331	97	3.4	4		25		3.5399E-03
24	11.117		86.4099	1.4712%	24410	5768	4.2	2		25		3.5399E-03
25	11.187	IS#2/ecd	100.0000	0.0000%	28250	5255	5.4	2	25	25	0	3.5399E-03
26	11.348	112TCEa	299.7269	5.1032%	18998	4421	4.3	2	25	25	.2700	1.5777E-02
27	11.518	PCE/ecd	334.4207	5.6939%	7209744	965874	7.5	OV	25	25	-.1630	4.6385E-05
28	11.900	Br2Clmethane	35.5185	0.6047%	300447	54234	5.5	4	25	25	0	1.1822E-04
29	12.632		29.0054	0.4939%	8194	995	8.2	2		25		3.5399E-03
30	12.732		13.4721	0.2294%	3806	611	6.2	2		25		3.5399E-03
31	12.893		23.7282	0.4040%	6703	965	6.9	2		25		3.5399E-03
32	13.083		4.2386	0.0722%	1197	182	6.6	1		25		3.5399E-03
33	13.946	CHBr3	316.4084	5.3872%	323325	57798	5.6	1	34	25	0	9.7861E-04
34	14.328	IS3/ecd	78.7032	1.3400%	388713	59189	6.6	2	34	25	0	2.0247E-04
35	14.689	1122PCEa	291.7844	4.9680%	93874	15483	6.1	2	34	25	0	3.1083E-03
36	15.020	IS3#2	73.4677	1.2509%	112352	12364	9.1	2	34	25	0	6.5390E-04

TOTAL AMOUNT = 5873.2861

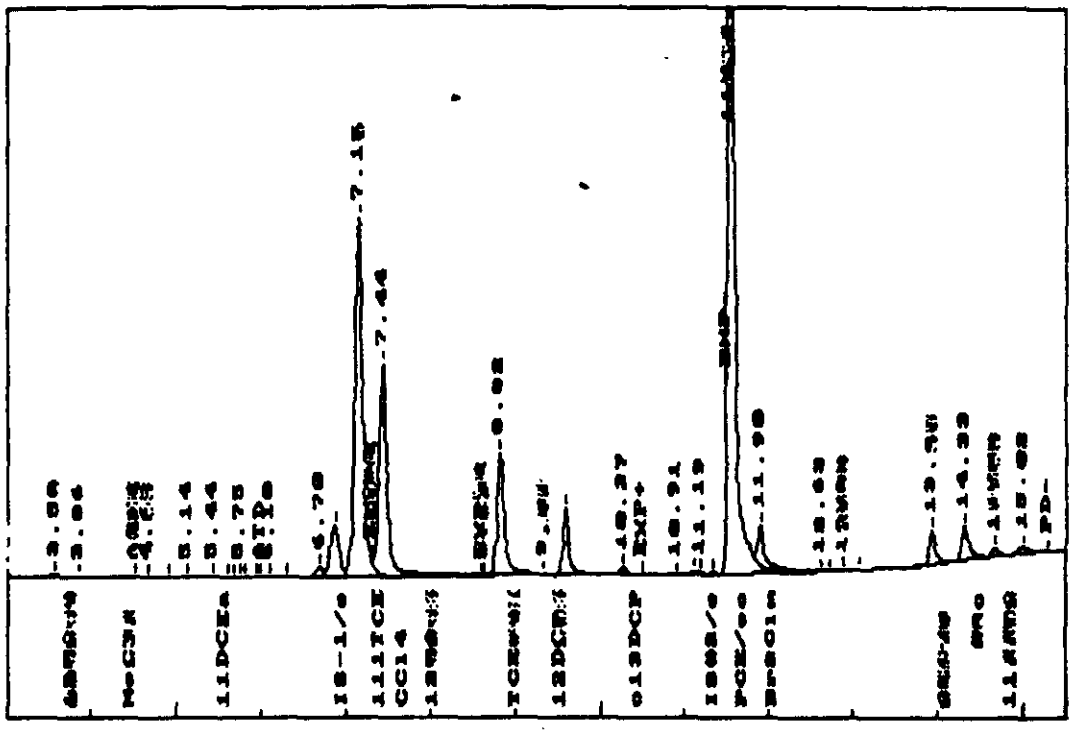
PEAKS NOT FOUND IN THIS RUN

E:D409H7
p.2 of 2

ORIGINAL
(Red)

Data File = E:D409H7.PTS Printed on 04-09-1991 at 11:25:16
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 28729 uv High Value: 999999 uv Scale factor: 1.0

ORIGINAL (Red)



Raw Data from 4/10/91

Run Number	Sample Name
2	continuing calibration #1
3	method blank #1
4	QC check
5	continuing calibration #2
6	method blank #2
7	continuing calibration #3
8	method blank #3
10	S-15
11	S-BAC
12	S-14
13	S-13
14	S-16 DUPLICATE
15	Continuing Calibration #4
16	method blank #4
17	S-12
18	S-14
19	S-13 MATRIX SPIKE
20	TRIP BLANK
21	continuing calibration #5
22	TRIP BLANK

INTERNAL STANDARD TABLE

ORIGINAL (Red)

07-18-1991 12:42:09 Version 5.0

Sample Name: cont cal 4/10 Data File: e:c410h2

Date: 04-10-1991 08:04:52 Method: CAPCCH 07-15-1991 13:33:18 # 142

Interface: 16 Cycle#: 2 Operator DEK Channel#: 0 Vial#: N.A.

Starting Peak Width: 6 Threshold: .5 Area Threshold: 50

Instrument Type: VARIAN 3300 Column Type: db-624

Solvent Description: He 7.00ml/min

Conditions: 40H4-55@6-140@10 spt37.6:1 MkupII N2 PIDr11/ECDr1

Detector 0: PID Detector 1: ECD

Misc. Information: #1/M603;#2/M610;tcl1/m067;IS/m616

Starting Delay: 3.00 Ending retention time: 15.50

Peak reject: 0 One sample per 0.602 sec.

Amount injected: 1.00 Dilution factor: 30.00

Internal Standard Amount: 100

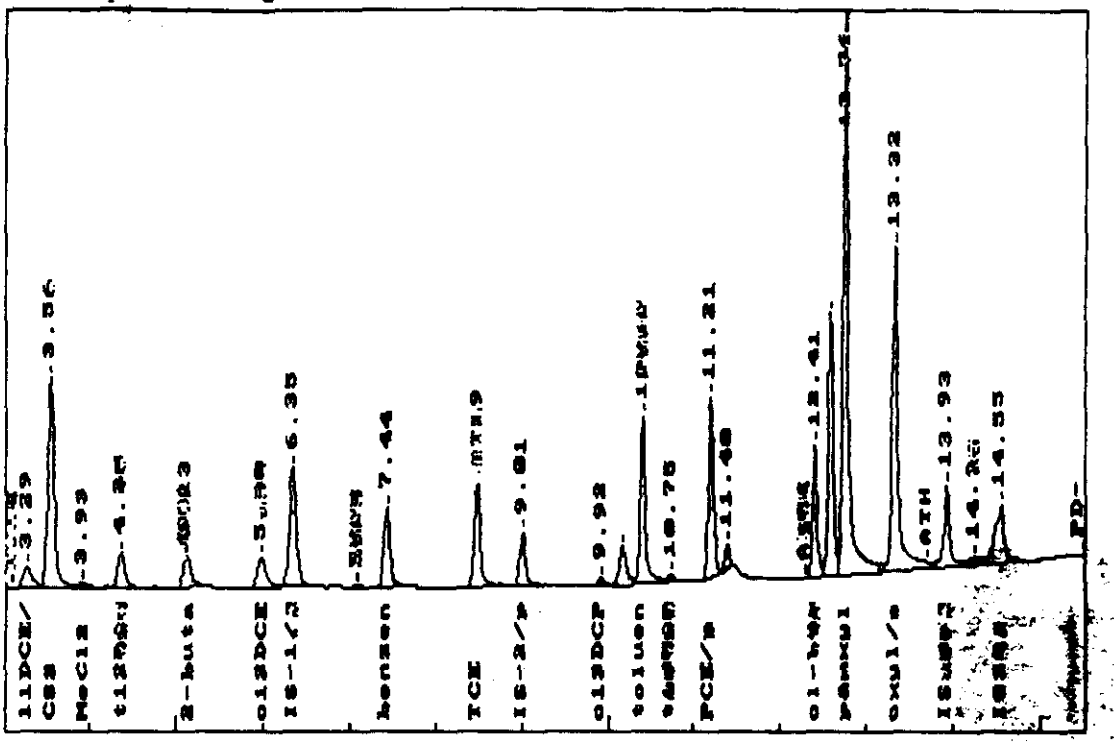
Sample Weight: 5.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
	3.291	11DCE/acet	272.8094	2.2602%	3719	528	7.0	2	7	7	-.2334	[redacted]
2	3.562	CS2	1541.7961	12.7738%	28297	5453	5.2	3	7	7	0	[redacted]
3	3.933	MeCl2	2262.9492	18.7485%	579	95	6.1	4	7	7	-.1421	[redacted]
4	4.365	t12DCEe	256.4506	2.1247%	5088	883	5.8	1	7	7	-.3940	[redacted]
5	5.127	2-butanone	1117.7830	9.2608%	4833	811	6.0	1	7	7	-.4422	[redacted]
6	5.980	c12DCE/VAc	225.1306	1.8652%	5711	791	7.2	2	7	7	-.2793	[redacted]
7	6.351	IS-1/pid	100.0000	0.0000%	17645	3079	5.7	2	7	7	0	5.6673E-03
8	7.094		12.4868	0.1035%	367	59	6.2	1		7		3.4004E-02
9	7.445	benzene	268.9868	2.2284%	11307	2051	5.5	1	7	7	.2740	2.3787E-02
10	8.488	TCE	251.5641	2.0842%	12232	2637	4.6	1	11	11	0	2.0566E-02
11	9.010	IS-2/pid	100.0000	0.0000%	6725	1389	4.8	1	11	11	0	1.4869E-02
12	9.923	c13DCP	249.3125	2.0656%	590	154	3.8	1	11	11	.2216	4.2259E-01
13	10.174	4me2pent	1278.8337	10.5951%	5180	973	5.3	2	11	11	.1510	2.4687E-01
14	10.405	toluene	276.7289	2.2927%	18385	4330	4.2	2	11	11	.1770	1.5052E-02
15	10.746	t13DCP	324.8826	2.6917%	1100	194	5.7	2	11	11	.3060	2.9523E-01
	11.207	PCE/p	257.7888	2.1358%	16970	4701	3.6	1	11	11	.2592	1.5191E-02
	11.398	2-hexanone	523.0199	4.3332%	2174	625	3.5	1	11	11	.3644	2.4060E-01
18	12.411	cl-benzene	305.3815	2.5301%	12578	3476	3.6	2	22	11	-.1758	2.4280E-02
19	12.592	eth-benzene	307.8383	2.5504%	25904	6843	3.8	2	22	11	0	1.1884E-02
20	12.762	p&mxylene	628.8411	5.2100%	64555	14748	4.4	2	22	11	-.1494	9.7412E-03
21	13.324	oxyl/styrene	[redacted]	4.6988%	41923	8430	5.0	2	22	11	-.1101	1.3528E-02
22	13.926	IS-3/pid	[redacted]	2.9465%	9698	2109	4.6	3	22	11	0	3.6671E-02
23	14.247		[redacted]	1.2095%	1636	170	9.6	4		11		8.9216E-02
24	14.548	IS3#2	[redacted]	5.2913%	10639	1501	7.1	2	22	11	0	6.0030E-02

TOTAL AMOUNT = [redacted]

Areas, times, and heights stored in: E:C410H2.ATB
Data File = E:C410H2.PTS Printed on 04-10-1991 at 08:22:08
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 8558 uv High Value: 23654 uv Scale factor: 1.0

ORIGINAL (Red)



ORIGINAL (Red)

INTERNAL STANDARD TABLE

07-18-1991 11:13:27 Version 3.0

Method Name: cont cal 4/10 Data File: [illegible]

Date: 07-10-1991 08:04:52 Method: [illegible] 07-15-1991 10:41:55 # 21

Injection: 16 Cycle#: 2 Operator: [illegible] Channel#: 1 Vial#: 4.3

Peak Width: 6 Threshold: .5 Area Threshold: 30

Instrument Type: VARIAN 3300 Column type: [illegible]

Solvent Description: [illegible]

Detector 1: [illegible] N2 FID[illegible]

Detector 2: FID Detector 1: ECD

Calibration: #1/M6[illegible];#2/M510;[illegible]/m0a7;IS/m616

Starting Dilution: 1.00 Ending retention time: 13.00

Sample Weight: 0 One sample per: 0.002 sec

Amount Injected: 1.00 Dilution Factor: 30.00

Internal Standard Amount: 100

Sample Weight: 5.000000

PEAK NO.	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	3.562	11DCE	238 ~~25.2245~~	0.1877%	3603	590	6.1 1		8		7.0032E-03
2	3.833		54.3668	0.4060%	7792	1533	5.1 1		8		7.0032E-03
3	4.214	- MeCl2	2160 ~~50.8509~~	0.1550%	2974	459	6.5 1		8		7.0032E-03
4	5.275	11DCEa	2140 ~~1914.2419~~	14.2414%	3302	310	10.7 1	P	8	-2.943	5.7973E-01
5	5.679		5.4907	0.0408%	784	90	8.7 2		8		7.0032E-03
6	5.759		1.1167	0.0083%	159	52	3.1 2		8		7.0032E-03
7	6.642	IS-1	100 ~~534.7455~~	3.9783%	76357	12369	6.2 2		8		7.0032E-03
8	6.817	~~10 1/ecd~~ CHCl3	244 ~~100.0000~~	0.0000%	85675	12533	6.8 2	8	8	0	1.1672E-03
9	7.394	11TCEa	240 ~~[illegible].7202~~	27.2346%	522720	73231	7.1 2		8		7.0032E-03
10	7.383	CCl4	25 ~~2162.4287~~	16.0878%	308777	46116	6.7 3		8		7.0032E-03
11	7.72[illegible]	12DCEa	2210 ~~55.9428~~	0.4013%	7703	610	12.6 4		8		7.0032E-03
12	8.267		5.6998	0.0052%	100	37	2.7 1		8		7.0032E-03
13	8.768	TCE/ecd	272.0799	2.0242%	160038	27052	5.9 3	19	19	-.4003	1.7001E-03
14	9.180	~~12DCPa~~	121.3996	3.9069%	4539	620	7.3 4		19		2.6857E-02
15	9.291	12DCPa	2122.7915	15.7929%	5783	834	6.9 4	19	19	-.3183	3.6705E-01
	9.532	BrCl2methane	55.4723	0.4127%	68808	12229	5.6 2	19	19	-.2834	8.0620E-04
17	10.224	c13DCPe	596.3568	4.4367%	17568	1684	10.4 3	19	19	0	3.3945E-02
18	10.836		11.3338	0.0843%	422	63	6.7 1		19		2.6857E-02
19	11.137	IS#2/ecd	100.0000	0.0000%	22340	3631	6.2 3	19	19	0	4.4762E-03
20	11.298	112TCEa	47.0215	0.3498%	1669	431	3.9 4	19	19	-.2477	2.8170E-02
21	11.438	PCE/ecd	280.3652	2.0858%	1208330	233071	5.2 3	19	19	-.0536	2.3202E-04
22	11.849	BrCl2methane	82.9104	0.6168%	34107	6554	5.2 4	19	19	0	2.4309E-03
23	13.396	CHBr3	141.5023	1.0527%	64343	5262	12.2 1	24	19	0	2.1992E-03
24	14.277	IS3/ecd	525.2384	3.9076%	259631	34320	7.6 3	24	19	0	2.0233E-03
25	14.649	1122PCEa	139.7650	1.0398%	9747	1782	5.5 4	24	19	0	1.4340E-02
26	14.980	IS3#2	610.6771	4.5432%	79466	7522	10.6 2	24	19	.2359	7.6848E-03

TOTAL AMOUNT = 13441.4326

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
11DCEe/e ✓	3.66	IS-1/ecd
MeCl2 ✓	4.33	IS-1/ecd
CHCl3 ✓	6.98	IS-1/ecd
111TCEa ✓	7.27	IS-1/ecd
CCl4 ✓	7.55	IS-1/ecd
11DCEa ✓	7.90	IS-1/ecd

Peak was identified and misquantitated corrected 7/17/91

E.D 410 H2 p.206

ORIGINAL
(Red)

11 DCE $\frac{3603}{76357} \times \frac{100}{0.119} \times \frac{30}{5} = 238$

MeCl2 $\frac{2974}{76357} \times \frac{100}{0.0108} \times \frac{30}{5} = 2164$

11 DCEa $\frac{3302}{76357} \times \frac{100}{0.0121} \times \frac{30}{5} = 2144$

CHCl3 $\frac{85675}{76357} \times \frac{100}{2.757} \times \frac{30}{5} = 244$

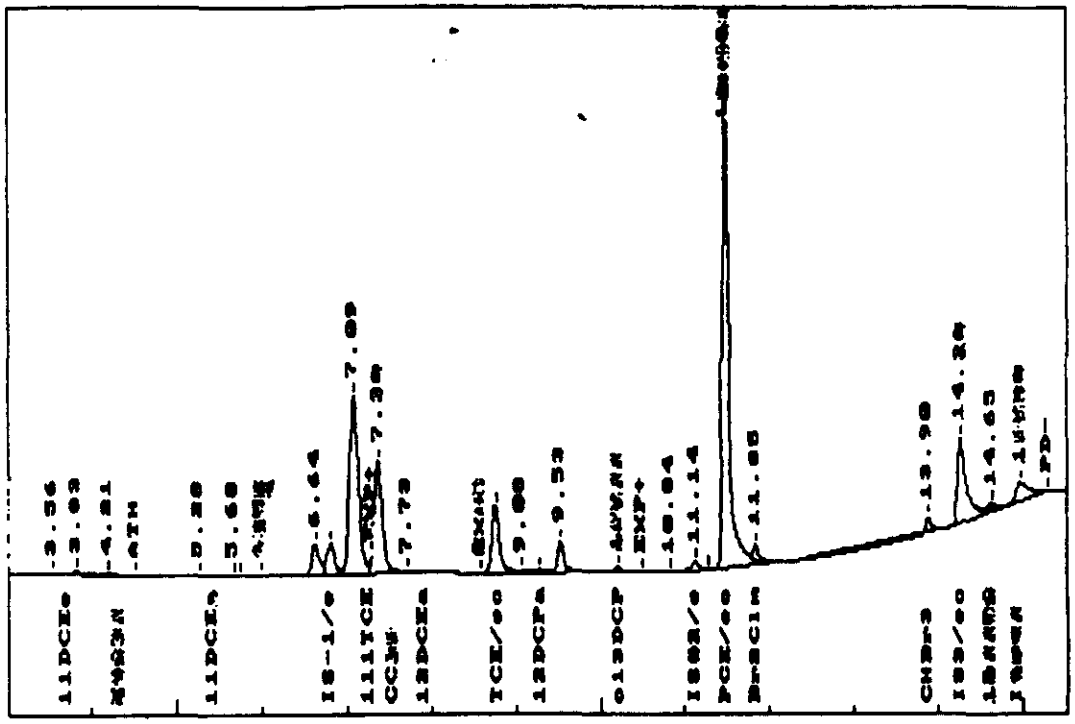
111 TCEa $\frac{522720}{76357} \times \frac{100}{17.063} \times \frac{30}{5} = 241$

CCl4 $\frac{308777}{76357} \times \frac{100}{96.59} \times \frac{30}{5} = 25.$

12 DCEa $\frac{7703}{76357} \times \frac{100}{0.0274} \times \frac{30}{5} = 2210$

Areas, times, and heights stored in: E:D410H2.ATB
Data File = E:D410H2.PTS Printed on 04-10-1991 at 08:24:25
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 27132 uv High Value: 262432 uv Scale factor: 1.0

ORIGINAL
(Red)



ORIGINAL
(Red)

[illegible]

4-10-1991 08:04:52 [illegible]

[illegible] Cyclo#: [illegible]

Peak Width: 6 [illegible]

[illegible] Type: VARIAN 3300

Solvent Descript[illegible]

[illegible]

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in CCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA HEIGHT BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	6.751	[illegible]	[illegible]	25.0114%	17645	3079	5.7 2	0	-1.860	4.0516E-03
[illegible]	[illegible]	[illegible]	[illegible]	28.2212%	6725	1389	4.8 1	0	-1.318	1.1995E-02
22	[illegible]	[illegible]	47.8133	16.7275%	9698	2109	4.6 7	0	-.7862	4.9301E-03
24	14.548	[illegible]	85.8846	30.0395%	10639	1501	7.1 2	0	-.7529	8.0707E-03

TOTAL AMOUNT = 285.836

ORIGINAL
(Red)

[illegible]

EXTERNAL STANDARD TABLE

[illegible] 06-17-1991 [illegible] Version [illegible]

Sample Name: cont cal 4/10 Data File: [illegible]

Date: 04-10-1991 08:04:52 Method: [illegible] Date: [illegible] #: [illegible]

Injection: 16 Cycle#: 2 Operator: [illegible] Sample#: Vial#: N.A.

Minimum Peak Width: 6 Threshold: [illegible] Area Threshold: 5%

Instrument Type: VARIAN 3300 Column Type: [illegible]

Sample Description: [illegible]

Conditions: [illegible]

Detector 1: FID Detector 2: ECD

Method Information: [illegible]

Injection Dole/: 2.00 Ending retention time: 15.50

Time slicing: [illegible] One sample per [illegible]

Amount injected: 1.00 Dilution factor: 1.00

Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ©Area%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
7	6.542	I9-1/ecd	33.5578	26.1895%	76357	12369	6.2	2	0	0	1.0943E-03
19	11.177	I3#2/ecd	31.3955	25.5118%	22340	3631	6.2	3	0	0	3.6434E-03
24	14.277	I53/ecd	71.2534	22.3329%	259601	34320	7.6	3	0	0	2.7447E-04
26	14.980	I53#2	32.2439	25.9658%	79466	7522	10.6	2	0	0	1.0425E-03

TOTAL AMOUNT = 319.0506

ORIGINAL
(Red)

[illegible]

Peak No	Identified Name	Observed Ret.Time min	Internal Standard RT Diff. Est Std. RT, window	Relative Retention Time Ref.Pk. RT Diff. Abs RT RT Window	Retention Index Method Ref.Peaks No.1 No.2 RT Diff. Abs-pred Ret.Index Window
1	[illegible]	[illegible]	[illegible]	7 -0.008 0.075	R-or M-file IS dont bracket
2	DEE	1.561	[illegible]	7 -0.002 0.057	R-or M-file IS dont bracket
3	[illegible]	1.837	[illegible]	7 -0.006 0.085	R-or M-file IS dont bracket
4	[illegible]	4.367	[illegible]	7 -0.017 0.056	R-or M-file IS dont bracket
5	2-butanone	5.127	[illegible]	7 -0.027 0.022	R-or M-file IS dont bracket
6	[illegible]	5.950	[illegible]	7 -0.017 0.024	R-or M-file IS dont bracket
7	IS-1	[illegible]	[illegible]	7 0.000 0.020	R-or M-file IS dont bracket
8	benzene	7.445	[illegible]	7 0.020 0.041	7 11 -0.0000 0.0200
9	TCE	8.488	[illegible]	11 -0.007 0.027	7 11 0.0000 0.0248
10	IS-2	9.710	[illegible]	11 0.000 0.020	R-or M-file IS dont bracket
11	[illegible]	9.922	[illegible]	11 0.022 0.160	11 22 0.0082 0.1571
12	Ar-Chart	10.074	[illegible]	11 0.015 0.023	11 22 -0.0024 0.0200
13	toluene	10.405	[illegible]	11 0.018 0.031	11 22 -0.0029 0.0225
14	[illegible]	10.746	[illegible]	11 0.033 0.042	11 22 0.0065 0.0209
15	[illegible]	11.207	[illegible]	11 0.029 0.046	11 22 -0.0045 0.1201
16	2-methanone	11.398	-0.110	0.079 11 0.041 0.058	11 22 0.0052 0.0270
17	[illegible]-benzene	12.411	-0.120	0.103 22 -0.022 0.031	11 22 -0.0070 0.0217
18	[illegible]-benzene	12.592	-0.110	0.095 22 -0.010 0.020	11 22 0.0027 0.0200
19	[illegible]ylene	12.762	-0.120	0.095 22 -0.019 0.020	11 22 -0.0077 0.0200
20	[illegible]yl/styrene	13.324	-0.120	0.095 22 -0.015 0.020	11 22 -0.0088 0.0200
21	IS-3	13.926	-0.110	0.088 22 0.000 0.020	R-or M-file IS dont bracket
22	IS3#2	14.548	-0.110	0.092 22 0.005 0.026	R-or M-file IS dont bracket

ORIGINAL
(Red)

[illegible]

[illegible] Name: [illegible]
[illegible] File: a:c4[illegible]

[illegible]

Peak No.	Compound Name	External Standard Method: Predicted Ret.Time	Ext. Std. window Low	Ext. Std. window High	Relative Retention Time Method: Ref.Pk. Number	Predicted Ret.Time	RRT RT Window Low	RRT RT Window High	Retention Time Index Method: Ref.Peaks No.1	Ref.Peaks No.2	Predicted Ret.Time	Ret.Index Window Low	Ret.Index Window High
1	[illegible]	3.361	3.276	3.446	7	3.299	3.223	3.375	R-or	M-file	IS dont	bracket	compound
2	[illegible]	3.522	3.492	3.572	7	3.565	3.477	3.652	R-or	M-file	IS dont	bracket	compound
3	MeCl2	4.017	3.978	4.145	7	3.939	3.853	4.025	R-or	M-file	IS dont	bracket	compound
4	[illegible]	4.465	4.378	4.590	7	4.382	4.305	4.438	R-or	M-file	IS dont	bracket	compound
5	2-butanone	5.247	5.147	5.348	7	5.150	5.127	5.172	R-or	M-file	IS dont	bracket	compound
6	[illegible]	5.111	5.012	5.208	7	5.997	5.973	6.021	R-or	M-file	IS dont	bracket	compound
7	[illegible]	5.472	5.351	5.592	7	6.351	6.331	6.371	R-or	M-file	IS dont	bracket	compound
8	benzene	7.363	7.-61	7.569	7	7.424	7.383	7.466	7	11	7.4448	7.4248	7.4648
9	TCE	8.609	8.508	8.711	10	8.495	8.468	8.522	7	10	8.4882	8.4674	8.5121
10	[illegible]	9.130	9.037	9.224	10	9.010	8.990	9.030	R-or	M-file	IS dont	bracket	compound
11	[illegible]	10.033	9.890	10.177	10	9.901	9.740	10.062	10	21	9.9148	9.7577	10.0719
[illegible]	4methpent	10.294	10.202	10.386	10	10.158	10.136	10.181	10	21	10.1762	10.1562	10.1962
13	toluene	10.525	10.420	10.630	10	10.386	10.355	10.418	10	21	10.4075	10.3850	10.4299
14	[illegible]	10.856	10.771	10.941	10	10.713	10.671	10.755	10	21	10.7392	10.7187	10.7601
15	PCE e	11.328	11.232	11.423	10	11.178	11.132	11.224	10	21	11.2118	11.1917	11.2319
16	2-hexanone	11.508	11.430	11.587	10	11.357	11.298	11.415	10	21	11.3927	11.3657	11.4197
17	cl-benzene	12.532	12.429	12.634	21	12.433	12.402	12.464	10	21	12.4182	12.3965	12.4399
18	ethylbenzene	12.702	12.607	12.798	21	12.602	12.582	12.622	10	21	12.5891	12.5691	12.6091
19	o&m-xylene	12.883	12.787	12.978	21	12.782	12.762	12.802	10	21	12.7701	12.7501	12.7901
20	styrene	13.445	13.349	13.540	21	13.339	13.319	13.359	10	21	13.3331	13.3131	13.3531
21	[illegible]	14.027	13.949	14.124	21	13.926	13.906	13.946	R-or	M-file	IS dont	bracket	compound
22	[illegible]	14.659	14.567	14.751	21	14.542	14.513	14.569	R-or	M-file	IS dont	bracket	compound

ORIGINAL
(Red)

ATS File Peak No.	Compound Name	Observed Ret.Time (min)	IS Serial Abundance RT Diff. obs-pred	Abundance Ratio Window	Relative Retention Time Ref.Peak No.	RT Diff. obs-pred	RRT Window	Retention Index Method Ref.Peaks No.1	No.2	RT Diff. obs-pred	Rel.Indx Window
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	R-or M-file IS dont bracket			
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	R-or M-file IS dont bracket			
17	[illegible]	[illegible]	[illegible]	[illegible]	19	[illegible]	[illegible]	8	19	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	19	[illegible]	[illegible]	8	19	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	19	[illegible]	[illegible]	8	19	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	19	[illegible]	[illegible]	8	19	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	19	[illegible]	[illegible]	R-or M-file IS dont bracket			
21	[illegible]	[illegible]	[illegible]	[illegible]	19	[illegible]	[illegible]	19	24	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	19	[illegible]	[illegible]	19	24	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	19	[illegible]	[illegible]	19	24	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	24	[illegible]	[illegible]	19	24	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	24	[illegible]	[illegible]	R-or M-file IS dont bracket			
25	[illegible]	[illegible]	[illegible]	[illegible]	24	[illegible]	[illegible]	R-or M-file IS dont bracket			
26	[illegible]	[illegible]	[illegible]	[illegible]	24	[illegible]	[illegible]	R-or M-file IS dont bracket			

Method Name: [illegible]
Data File: a:d4[illegible]

Date/Time: 07-11-1991 [illegible]
[illegible] C:\NELSON\dapcch.MST [illegible]
[illegible] Width File: C:\NELSON\[illegible]
[illegible] Table Last Updated: [illegible]
[illegible] Temperature range: Low: [illegible] degrees C High: [illegible] degrees C
[illegible] Peaks allowed for RT Window application: Low: [illegible] High: 3.00
[illegible] Window width: [illegible] of resulting pairs of [illegible] peaks.
[illegible] Table RT window width: .02
[illegible] Based on 99 % Confidence Interval Using t Distribution.
[illegible] RT window development:
[illegible]

Method File Peak #	Compound Name	External Standard Method: Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Relative Retention Time Method: Ref.Pk. Number	Predictd. Ret.Time	RRT RT Window Low	RRT RT Window High	Retention Time Index Method: Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	Ret.Index Window Low	Ret.Index Window High
1	[illegible]Ea/a	3.682	3.434	3.730	4	3.347	3.555	3.728	R-or	M-file	IS dont	bracket	compound
2	MeOH	4.224	4.079	4.369	4	4.300	4.225	4.376	R-or	M-file	IS dont	bracket	compound
3	[illegible]Ea	5.329	5.230	5.426	4	5.424	5.404	5.444	R-or	M-file	IS dont	bracket	compound
4	IS-1/ecd	6.692	6.563	6.821	4	6.813	6.793	6.833	R-or	M-file	IS dont	bracket	compound
5	[illegible]	6.862	6.721	6.995	4	6.977	6.951	7.002	4	13	6.9676	6.9407	6.9944
6	[illegible]Ea	7.144	7.051	7.237	4	7.273	7.144	7.402	4	13	7.2475	7.1459	7.3491
7	[illegible]	7.445	7.259	7.631	4	7.579	7.465	7.694	4	13	7.5771	7.4665	7.6876
8	[illegible]Ea	7.806	7.705	7.907	4	7.947	7.887	8.007	4	13	7.8944	7.8523	7.9165
9	[illegible]/ecd	8.819	8.735	8.903	13	8.780	8.669	8.891	4	13	8.8589	8.8290	8.8888
10	[illegible]Pa	9.140	9.045	9.235	13	9.099	9.067	9.132	4	13	9.1677	9.1477	9.1877
11	[illegible]methane	9.582	9.474	9.690	13	9.539	9.379	9.699	4	13	9.5930	9.4875	9.6985
12	[illegible]Pa	10.274	10.171	10.377	13	10.228	10.060	10.396	4	13	10.2587	10.1231	10.3943
13	[illegible]#2/ecd	11.187	11.069	11.305	13	11.137	11.117	11.157	R-or	M-file	IS dont	bracket	compound
14	[illegible]Ea	11.338	11.096	11.580	13	11.287	11.169	11.405	13	18	11.2890	11.1617	11.4162
15	[illegible]/ecd	11.548	11.475	11.621	13	11.496	11.368	11.625	13	18	11.5007	11.3909	11.6096
16	[illegible]methane	**11.900**	**11.779**	**12.021**	13	11.847	11.646	12.047	13	18	11.8545	11.6957	12.0133
17	[illegible]	**13.936**	**13.821**	**14.051**	18	13.906	13.830	13.982	13	18	13.9032	13.8267	13.9796
18	[illegible]/ecd	**14.308**	**14.210**	**14.406**	18	14.277	14.257	14.297	R-or	M-file	IS dont	bracket	compound
19	[illegible]Pa	**14.679**	**14.564**	**14.794**	18	14.648	14.570	14.726	R-or	M-file	IS dont	bracket	compound
20	[illegible]#2	14.990	14.899	15.081	18	14.959	14.910	15.006	R-or	M-file	IS dont	bracket	compound

INTERNAL STANDARD TABLE

********** 07-18-1991 12:40:12 Version 5.0 **********

* Sample Name: method blk Data File: e:c410h3 *
* Date: 04-10-1991 08:31:11 Method: CAPCOH 07-15-1991 13:33:18 # 142 *
* Interface: 16 Cycle#: 3 Operator DEK Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *
* Detector 0: PID Detector 1: ECD *
* Misc. Information: #1/M603;#2/M610;tcl1/m067;IS/m616 *

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 30.00
Internal Standard Amount: 100
Sample Weight: 5.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	5.970	c12DCE/VAc	ORTW ~~22.9280~~	2.4306%	446	80	5.6	1	2	2	-1.071	5.1433E-02
2	6.391	IS-1/pid	100.0000	0.0000%	13524	2258	6.0	1	2	2	0	7.3943E-03
3	9.040	IS-2/pid	100.0000	0.0000%	5191	1107	4.7	1	3	3	0	1.9264E-02
4	10.435	toluene	2.6590	0.2819%	136	36	3.8	1	3	3	.1323	1.9501E-02
5	12.793	p&mxylene	2.1615	0.2291%	171	49	3.5	1	7	3	-.1298	1.2620E-02
6	13.364	oxyl/styrene	1.5299	0.1622%	87	27	3.2	1	7	3	0	1.7527E-02
7	13.956	IS-3/pid	428.0854	45.3820%	9011	1534	5.9	1	7	3	0	4.7508E-02
8	14.277		11.4461	1.2134%	99	32	3.1	1		3		1.1558E-01
9	14.578	IS3#2	474.4844	50.3008%	6101	943	6.5	1	7	3	0	7.7772E-02

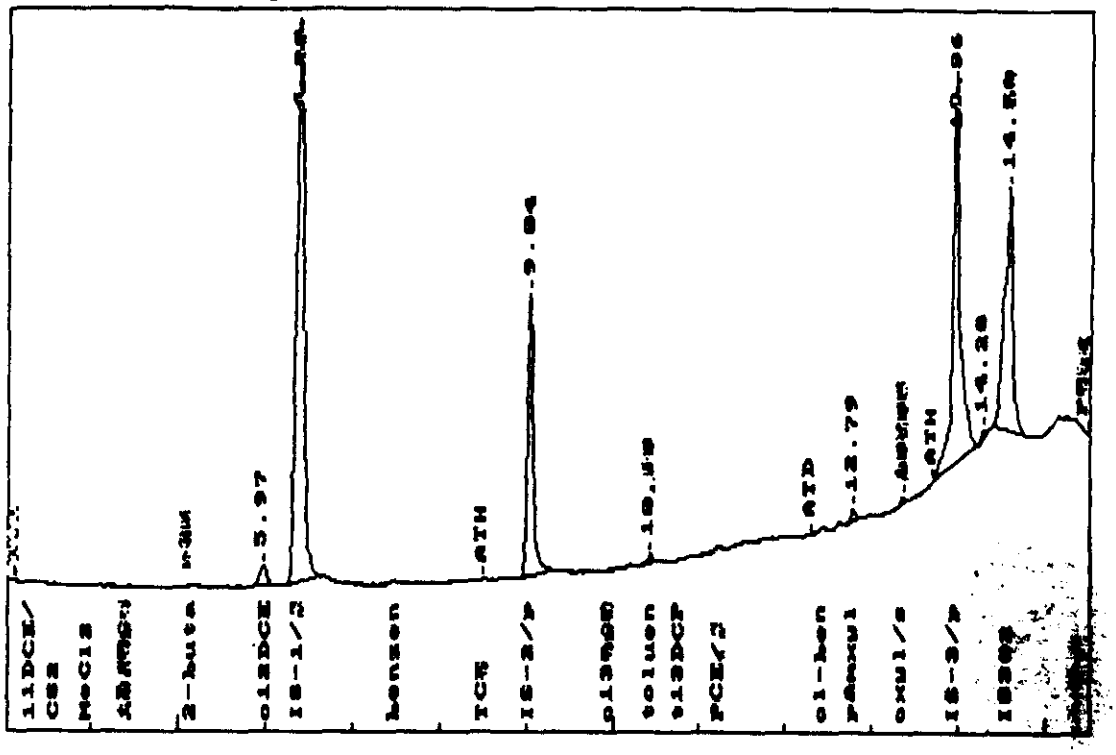
TOTAL AMOUNT = 943.2943

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
11DCE/acet	3.32	IS-1/pid
[illegible]	3.59	IS-1/pid
[illegible]12	3.96	IS-1/pid
t12DCEe	4.41	IS-1/pid
2-butanone	5.18	IS-1/pid
benzene	7.47	IS-1/pid
TCE	8.52	IS-2/pid
c13DCP	9.93	IS-2/pid
4me2pent	10.19	IS-2/pid
t13DCP	10.75	IS-2/pid
PCE/p	11.22	IS-2/pid
2-hexanone	11.39	IS-2/pid
cl-benzene	12.46	IS-3/pid
eth-benzene	12.63	IS-3/pid

ORIGINAL
(Red)

Areas, times, and heights stored in: E:C410H3.ATB
Data File = E:C410H3.PTS Printed on 04-10-1991 at 08:54:04
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 8537 uv High Value: 10818 uv Scale factor: 1.0



INTERNAL STANDARD TABLE

07-18-1991 12:41:03 Version 5.0

Sample Name: method blk Data File: e:d410h3

Date: 04-10-1991 08:31:11 Method: DAPCCH 07-15-1991 13:41:55 # 91

Interface: 16 **Cycle#:** 3 Operator DEK Channel#: 1 Vial#: N.A.

Starting Peak **Width:** 6 Threshold: .5 Area Threshold: 50

Instrument Type: VARIAN 3300 Column Type: db-624

Solvent Description: He 7.00ml/min

Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1

Detector 0: PID Detector 1: ECD

Mass Information: #1/M603;#2/M610;tcl1/m067;IS/m616

Starting Delay: 3.00 Ending retention time: 15.50

Area reject: 0 One sample per 0.602 sec.

Amount Injected: 1.00 Dilution factor: 30.00

Internal Standard Amount: 100

Sample Weight: 5.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
	4.595		1.0981	0.0528%	139	30	4.6	1		8		7.8966E-03
2	4.776		0.4896	0.0236%	62	19	3.2	1		8		7.8966E-03
3	5.007		1.5497	0.0746%	196	20	9.8	1		8		7.8966E-03
4	5.368	11DCEa	ORTW ~~23.2174~~	1.1174%	36	19	1.9	1	8	8	.7482	6.5[illegible]E-01
5	5.609		0.3259	0.0157%	41	24	1.7	2		8		7.8966E-03
6	5.689		0.5339	0.0257%	68	19	3.6	2		8		7.8966E-03
7	5.900		0.1901	0.0092%	24	15	1.6	1		8		7.8966E-03
8	6.682	IS-1/ecd	100.0000	0.0000%	75982	11222	6.8	3	8	8	0	1.3161E-03
9	7.144	111TCEa	1.1685	0.0562%	2525	291	8.7	4	8	8	.2344	4.6280E-04
10	7.425	CCl4	1.2957	0.0624%	15849	2535	6.3	2	8	8	.2818	8.1753E-05
11	8.819	TCE/ecd	0.8486	0.0408%	376	92	4.1	1	16	16	-.1005	2.2591E-03
12	9.331	12DCPa	1520.8423	73.1919%	3118	600	5.2	1	16	16	-.1575	4.8775E-01
13	9.813		4.3614	0.2099%	122	27	4.5	1		16		3.5689E-02
14	10.033		8.7872	0.4229%	246	34	7.2	1		16		3.5689E-02
15	10.876		7.8848	0.3795%	221	57	3.9	1		16		3.5689E-02
	11.167	IS#2/ecd	100.0000	0.0000%	16812	3141	5.4	1	16	16	0	5.9481E-03
	11.528	PCE/ecd	1.5063	0.0725%	4886	1134	4.3	1	16	16	0	3.0831E-04
18	14.308	IS3/ecd	46.3689	2.2315%	17247	23791	0.7	1	18	16	0	2.6886E-03
19	15.000	IS3#2	457.4144	22.0135%	44793	5392	8.3	1	18	16	.1590	1.0212E-02

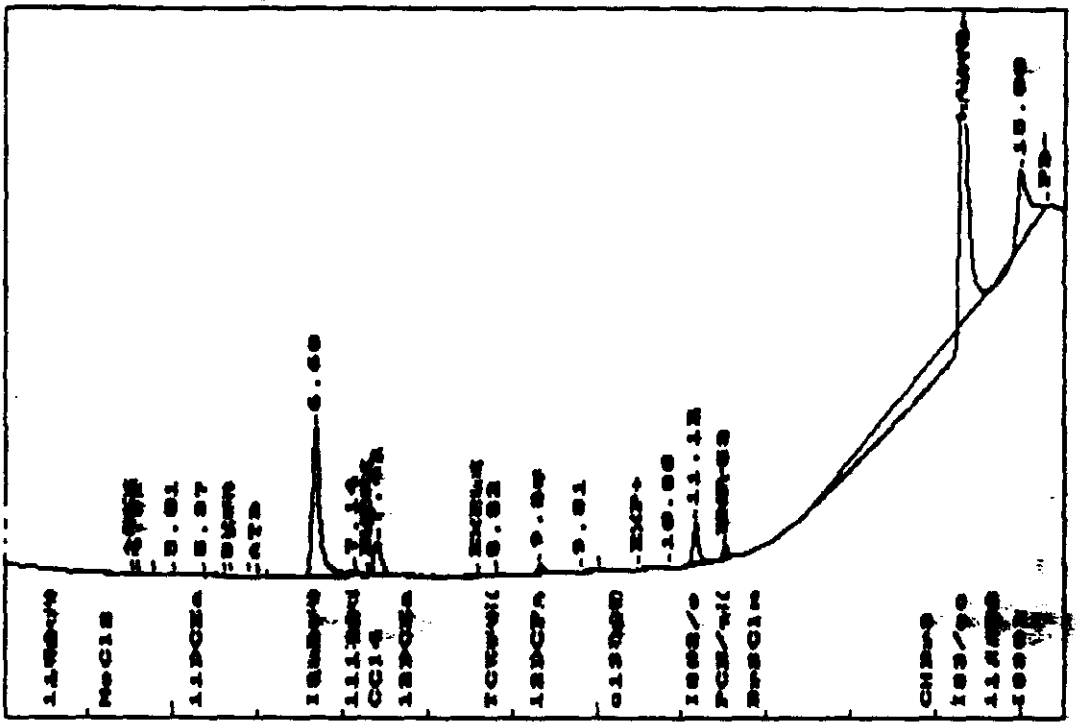
TOTAL AMOUNT = 2077.8828

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
11DCEe/e	[illegible].59	IS-1/ecd
MeCl2	4.25	IS-1/ecd
CHCl3	6.85	IS-1/ecd
12DCEa	7.75	IS-1/ecd
BrCl2methane	9.58	IS#2/ecd
c13DCPe	10.26	IS#2/ecd
112TCEa	11.36	IS#2/ecd
Br2Clmethane	11.87	IS#2/ecd
CHBr3	13.94	IS3/ecd
1122PCEa	14.67	IS3/ecd

ORIGINAL

Areas, times, and heights stored in: E:D410H3.ATB
Data File = E:D410H3.PTS Printed on 04-10-1991 at 08:56:14
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 27326 uv High Value: 70522 uv Scale factor: 1.0



ORIGINAL (Red)

INTERNAL STANDARD TABLE

07-24-1991 11:10:02 Version 5.0

Sample Name: method blk Data File: c:c110m2

Date: 04-10-1991 08:31:11 Method: 24P15H 07-24-1991 11:09:07 # 93

Injectname: 16 Cycle#: 3 Operator DB Channel#: 0 Vial#: N.A.

Standard Peak Width: 6 Threshold: .5 Area Threshold: 30

Instrument Type: VARIAN 3300 Column Type: d5-e24

Solvent Description: He 7.00ml/min

Description: 0H4-5536-140@10 spt37.6:1 Mkm33 N2 PID=11/ECD=1

Detector 0: PID Detector 1: ECD

Misc. Information: #1:M60I:#I/M610:tc11/m667;IS/m616

Starting Delay: 3.00 Ending retention time: 15.50

Peak rejection: 0 One sample per 0.200 sec.

Amount injected: 1.00 Dilution factor: 1.00

Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in %Area%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	6.391	IS-1/pid	54.7938	26.0030%	13524	2258	6.0	1	0	-1.240	4.0516E-03
	9.040	IS-2/pid	62.2644	29.5482%	5191	1107	4.7	1	0	-.9890	1.1995E-02
7	13.956	IS-3/pid	44.4241	21.0819%	9011	1534	5.9	1	0	-.5718	4.9301E-03
9	14.578	IS3#2	49.2392	23.3669%	6101	943	6.5	1	0	-.5475	8.0702E-03

TOTAL AMOUNT = 210.7216

ORIGINAL (Red)

```
*****   EXTERNAL STANDARD TABLE   *****
******************** 06-17-1991 12:14:09 Version 5.0 ********************
* Sample Name: method blk                          Data File: E:D410H3   *
* Date: 04-10-1991 08:31;11 Method: DAPISH 06-17-1991 10:11:22  #  80    *
* Interface: 16  Cycle#:  3    Operator DEK Channel#: 1    Vial#: N.A.  *
* Starting Peak Width:  6   Threshold: .5  Area Threshold: 50            *
*************************************************************************
* Instrument Type: VARIAN 3300          Column Type: db-624              *
*              Solvent Description: He 7.00ml/min                        *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 FIDr11/ECDr1          *
*            Detector 0: FID                  Detector 1: ECD            *
* Misc. Information: #1/M603;#2/M610;tc11/m067;IS/m615                   *
*************************************************************************
Starting Delay:    3.00                    Ending retention time:    15.50
Area reject:        0                      One sample per   0.602 sec.
Amount injected:        1.00               Dilution factor:        1.00
Sample Weight:          1.000000
```

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in QCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	6.682	IS-1/ecd	83.1476	42.4587%	75982	11222	6.8	3	0	-1.479	1.0943E-03
16	11.167	IS#2/ecd	61.2535	31.2786%	16812	3141	5.4	1	0	-.8021	3.6434E-03
18	14.308	IS3/ecd	4.7338	2.4173%	17247	23791	0.7	1	0	-.5578	2.7447E-04
19	15.000	IS3#2	46.6970	23.8455%	44793	5392	8.3	1	0	-.3997	1.042[illegible]E-03

TOTAL AMOUNT = 195.8319

ORIGINAL (Red)

RETENTION TIME EVALUATION TABLE; p. 1 of :

Sample Name: method blk
Disc File: e:c410h3.ATB

Printout Date/Time: 04-10-1991 10:59:20
Method File: C:\NELSON\capcch.MET Updated: 04-10-1991 10:07:29 version: 100
RT Window Width File: C:\NELSON\capcch.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

ATB File Peak No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window
1	c12DCE/VAc	5.970	-0.110	0.098	2	-0.044	0.024	R-or M-file IS dont bracket			
2	IS-1/pid	6.391	-0.070	0.121	2	0.000	0.020	R-or M-file IS dont bracket			
3	IS-2/pid	9.040	-0.060	0.094	3	0.000	0.020	R-or M-file IS dont bracket			
4	toluene	10.433	-0.070	0.105	3	-0.001	0.031	3	7	-0.0100	0.0225
5	p&mxylene	12.793	-0.060	0.095	7	-0.005	0.020	3	7	-0.0000	0.0200
6	oxyl/styrene	13.364	-0.050	0.095	7	0.007	0.020	3	7	0.0100	0.0200
7	IS-3/pid	13.956	-0.060	0.088	7	0.000	0.020	R-or M-file IS dont bracket			
9	IS3#2	14.578	-0.050	0.092	7	0.013	0.026	R-or M-file IS dont bracket			

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE; p. 2 of 2

Sample Name: method blk
Disc File: e:c410h3.ATB

Printout Date/Time: 04-10-1991 10:59:23
Method File: C:\NELSON\capcch.MET Updated: 04-10-1991 10:07:29 version: 100
RT Window Width File: C:\NELSON\capcch.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

hod	Compound Name	External Standard Method			Relative Retention Time Method				Retention Time Index Method				
...e Peak Number		Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	RRT RT Window High	Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	Ret.Index Window Low	Ret.Index Window High
1	11DCE/acet	3.361	3.276	3.446	7	3.325	3.249	3.401	R-or M-file IS dont bracket compound				
2	CS2	3.642	3.502	3.782	7	3.603	3.515	3.690	R-or M-file IS dont bracket compound				
3	MeCl2	4.013	3.878	4.149	7	3.970	3.884	4.056	R-or M-file IS dont bracket compound				
4	t12DCEe	4.455	4.328	4.582	7	4.406	4.350	4.463	R-or M-file IS dont bracket compound				
5	2-butanone	5.227	5.127	5.328	7	5.171	5.148	5.193	R-or M-file IS dont bracket compound				
6	c12DCE/VAc	6.080	5.982	6.178	7	6.014	5.990	6.038	R-or M-file IS dont bracket compound				
7	IS-1/pid	6.462	6.341	6.582	7	6.391	6.371	6.411	R-or M-file IS dont bracket compound				
8	benzene	7.535	7.431	7.639	7	7.453	7.412	7.495	7	10	7.4689	7.4489	7.4889
9	TCE	8.589	8.486	8.691	10	8.532	8.505	8.559	7	10	8.5264	8.5015	8.551[illegible]
10	IS-2/pid	9.100	9.007	9.194	10	9.040	9.020	9.060	R-or M-file IS dont bracket compound				
11	c13DCP	10.013	9.869	10.157	10	9.947	9.786	10.108	10	21	9.9531	9.7961	10.1101
12	4me2pent	10.264	10.172	10.356	10	10.196	10.173	10.219	10	21	10.2039	10.1839	10.2239
13	toluene	10.505	10.400	10.610	10	10.435	10.404	10.467	10	21	10.4447	10.4223	10.4672
14	t13DCP	10.836	10.751	10.921	10	10.764	10.723	10.806	10	21	10.7758	10.7549	10.7967
15	PCE/p	[illegible]	[illegible]	[illegible].393	10	11.223	11.177	11.269	10	21	11.2374	11.2173	11.2575
16	2-hexanone	[illegible]	[illegible]	[illegible].557	10	11.402	11.344	11.460	10	21	11.4180	11.3910	11.4449
17	cl-benzene	[illegible]	[illegible]	12.614	21	12.458	12.427	12.489	10	21	12.4514	12.4297	12.4731
18	eth-benzene	[illegible]	[illegible]	12.778	21	12.628	12.608	12.648	10	21	12.6220	12.6020	12.6420
19	pmxylene	12.853	12.757	12.948	21	12.798	12.778	12.818	10	21	12.7925	12.7725	12.8125
20	oxyl/styrene	13.415	13.319	13.510	21	13.357	13.337	13.377	10	21	13.3544	13.3344	13.3744
21	IS-3/pid	14.017	13.929	14.104	21	13.956	13.936	13.976	R-or M-file IS dont bracket compound				
22	IS3#2	14.629	14.537	14.721	21	14.566	14.540	14.592	R-or M-file IS dont bracket compound				

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE; p. 1 of 2

Sample Name: method blk
Disc File: e:d410h3.ATB

Printout Date/Time: 04-10-1991 11:02:09
Method File: C:\NELSON\dapcch.MET Updated: 04-10-1991 10:08:07 version: 92
RT Window Width File: C:\NELSON\dapcch.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

ATB File No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window
4	11DCEa	5.368	0.100	0.098	8	0.163	0.020	R-or M-file IS dont bracket			
8	IS-1/ecd	6.682	-0.080	0.129	8	0.000	0.020	R-or M-file IS dont bracket			
9	111TCEa	7.144	-0.070	0.093	8	0.015	0.128	8	16	0.0080	0.1038
10	CCl4	7.425	-0.070	0.086	8	0.019	0.114	8	16	0.0067	0.0721
11	TCE/ecd	8.819	-0.050	0.084	16	-0.003	0.111	8	16	0.0206	0.0306
12	12DCPa	9.331	-0.070	0.095	16	-0.020	0.032	8	16	-0.0018	0.0200
16	IS#2/ecd	11.167	-0.060	0.118	16	0.000	0.020	R-or M-file IS dont bracket			
17	PCE/ecd	11.528	-0.060	0.073	16	0.002	0.128	16	18	-0.0012	0.1092
18	IS3/ecd	14.308	-0.050	0.098	18	0.000	0.020	R-or M-file IS dont bracket			
19	IS3#2	15.000	-0.040	0.091	18	0.012	0.048	R-or M-file IS dont bracket			

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE; p. 2 of 3

Sample Name: method blk
Disc File: e:d410h3.ATB

Printout Date/Time: 04-10-1991 11:02:13
Method File: C:\NELSON\dapcch.MET Updated: 04-10-1991 10:08:07 version: 92
RT Window Width File: C:\NELSON\dapcch.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

Method Peak Number	Compound Name	External Standard Method			Relative Retention Time Method				Retention Time Index Method				
		Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	RRT RT Window High	Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	Ret.Index Window Low	Ret.Index Window High
1	11DCEe/e	3.652	3.504	3.800	4	3.609	3.517	3.701	R-or M-file IS dont bracket compound				
2	MeCl2	4.304	4.159	4.450	4	4.253	4.178	4.329	R-or M-file IS dont bracket compound				
3	11DCEa	5.268	5.169	5.366	4	5.205	5.185	5.225	R-or M-file IS dont bracket compound				
4	IS-1/ecd	6.763	6.633	6.892	4	6.682	6.662	6.702	R-or M-file IS dont bracket compound				
5	CHCl3	6.933	6.801	7.065	4	6.851	6.825	6.876	4	13	6.8536	6.8261	6.8810
6	111TCEa	7.214	7.121	7.307	4	7.128	6.999	7.258	4	13	7.1358	7.0320	7.2395
7	CCl4	7.495	7.409	7.581	4	7.406	7.292	7.520	4	13	7.4180	7.3459	7.4900
8	12DCEa	7.846	7.745	7.947	4	7.753	7.693	7.813	4	13	7.7707	7.7379	7.8035
9	TCE/ecd	8.870	8.785	8.954	13	8.822	8.711	8.933	4	13	8.7987	8.7682	8.8293
10	12DCPa	9.401	9.306	9.497	13	9.351	9.318	9.383	4	13	9.3329	9.3129	9.3529
11	BrCl2methane	9.632	9.524	9.740	13	9.580	9.421	9.740	4	13	9.5647	9.4569	9.6724
12	c13DCPe	10.314	10.212	10.417	13	10.259	10.091	10.427	4	13	10.2500	10.1115	10.3885
13	IS#2/ecd	11.227	11.109	11.346	13	11.167	11.147	11.187	R-or M-file IS dont bracket compound				
14	112TCEa	11.398	11.156	11.640	13	11.337	11.219	11.455	13	18	11.3382	11.2112	11.4653
15	PCE/ecd	[illegible]	11.514	11.661	13	11.526	11.398	11.655	13	18	11.5295	11.4203	11.6387
16	Br2Clmethane	[illegible]	[illegible]	12.071	13	11.886	11.685	12.086	13	18	11.8919	11.7333	12.0504
17	CHBr3	[illegible]	13.871	14.102	18	13.938	13.861	14.014	13	18	13.9351	13.8588	14.0115
18	IS3/ecd	[illegible]	14.259	14.456	18	14.308	14.288	14.328	R-or M-file IS dont bracket compound				
19	1122PCEa	14.719	14.604	14.834	18	14.668	14.590	14.745	R-or M-file IS dont bracket compound				
20	IS3#2	15.040	14.949	15.131	18	14.987	14.940	15.035	R-or M-file IS dont bracket compound				

ORIGINAL

INTERNAL STANDARD TABLE

07-18-1991 08:23:31 Version 5.0

Sample Name: QC check — Data File: e:c410h4

Date: 04-10-1991 09:05:25 Method: CAPCCH 07-15-1991 13:33:18 # 142

Interface: 16 Cycle#: 4 Operator DEK Channel#: 0 Vial#: N.A.

Starting Peak Width: 6 Threshold: .5 Area Threshold: 50

Instrument Type: VARIAN 3300 Column Type: db-624

Solvent Description: He 7.00ml/min

Conditions: 40H4-5@6-140@10 spt37.6:1 MKup33 N2 PID=11/ECD=1

Detector 2: PID Detector 1: ECD

Misc. Information: #1/M603;#2/M610;tc11/m067;IS/m616

Starting Delay: 3.00 Ending retention time: 15.30

Area reject: 0 One sample per 0.602 sec.

Amount injected: 1.00 Dilution factor: 30.00

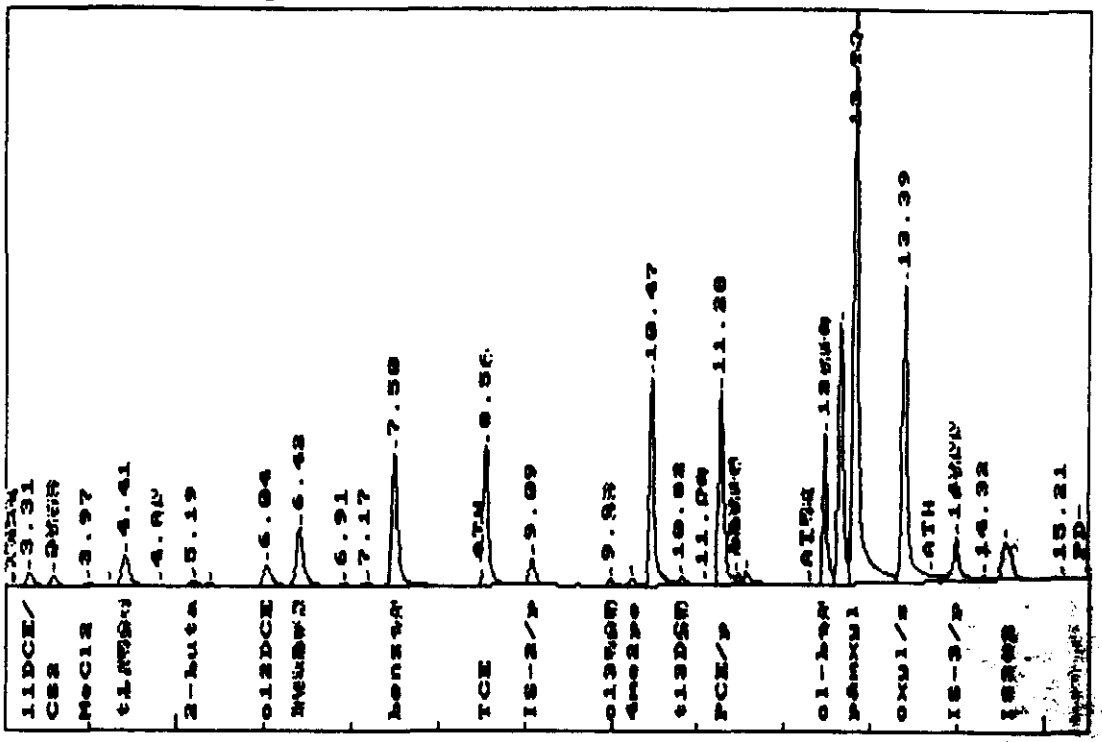
Internal Standard Amount: 100

Sample Weight: 5.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
.	3.311	11DCE/acet	265.3149	1.8548%	3935	681	5.8	2	10	10	-.7229	7.2499E-02
2	3.592	CS2	143.3423	0.9318%	2661	526	5.1	2	10	10	-.3323	5.3858E-02
3	3.973	MeCl2	3039.6255	19.7602%	787	152	5.2	1	10	10	-.2265	3.8622E+00
4	4.224		3.7893	0.0246%	113	27	4.1	2		10		3.3481E-02
5	4.415	t12DCEe	472.3998	3.0710%	9482	1612	5.9	2	10	10	-.3511	4.9820E-02
6	4.796		11.6184	0.0755%	346	54	6.4	2		10		3.3611E-02
7	5.187	2-butanone	394.7005	2.5659%	1726	253	6.8	2	10	10	-.3749	2.2862E-01
8	5.378		17.5573	0.1141%	522	77	6.8	2		10		3.3611E-02
9	6.040	c12DCE/VAc	292.3819	1.9007%	7504	1157	6.5	2	10	10	-.3771	3.8965E-02
10	6.421	IS-1/pid	100.0000	0.0000%	17851	3116	5.7	2	10	10	0	5.6018E-03
11	6.913		19.4979	0.1268%	580	87	6.7	2		10		3.3611E-02
12	7.174		26.1773	0.1702%	779	122	6.4	2		10		3.3611E-02
13	7.505	benzene	865.6825	5.6277%	36818	7298	5.0	1	10	10	0	2.3512E-02
14	8.558	TCE	655.3814	4.2618%	32724	7609	4.3	1	15	15	-.1438	2.0033E-02
15	9.090	IS-2/pid	100.0000	0.0000%	6904	1426	4.8	1	15	15	0	1.4484E-02
	9.993	c13DCP	524.8121	3.4117%	1275	317	4.0	2	15	15	0	4.1165E-01
.	10.244	4me2pent	445.6301	2.8970%	1853	359	5.2	2	15	15	0	2.4047E-01
18	10.475	toluene	699.2670	4.5458%	47691	11386	4.2	2	15	15	0	1.4662E-02
19	10.816	t13DCP	688.0060	4.4726%	2392	414	5.8	3	15	15	0	2.8759E-01
20	11.077		14.1903	0.0922%	163	39	4.1	4		15		8.6906E-02
21	11.278	PCE/p	632.1[illegible]	4.1097%	42722	10600	4.0	3	15	15	0	1.4797E-02
22	11.458	2-hexanone	442.5[illegible]	2.8767%	1888	383	4.9	4	15	15	0	2.3437E-01
23	11.568		267.3[illegible]	1.7382%	3077	571	5.4	4		15		8.6906E-02
24	12.482	cl-benzene	689.6[illegible]	4.4831%	29158	8183	3.6	2	28	15	-.1147	2.3651E-02
25	12.662	eth-benzene	641.[illegible]	4.1729%	55451	14179	3.9	2	28	15	0	1.1576E-02
26	12.833	p&mxylene	1384.4[illegible]	9.0001%	145901	31538	4.6	2	28	15	-.1037	9.4890E-03
27	13.395	oxyl/styrene	1050.6797	6.8303%	79730	16257	4.9	2	28	15	0	1.3178E-02
28	13.997	IS-3/pid	569.3075	3.7010%	15938	2388	6.7	3	28	15	0	3.5721E-02
29	14.318		140.6662	0.9145%	1619	180	9.0	4		15		8.6906E-02
30	14.568	IS3#2	959.5120	6.2377%	16409	2075	7.9	2	28	15	-.3310	5.8476E-02
31	15.211		4.8132	0.0313%	55	15	3.6	1		15		8.6906E-02

TOTAL AMOUNT = 15382.5557

Areas, times, and heights stored in: E:C410H4.ATB
Data File = E:C410H4.PTS Printed on 04-10-1991 at 09:22:50
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 8544 uv High Value: 40294 uv Scale factor: 1.0



ORIGINAL
(Red)

p. 1 of 3

ORIGINAL (Red)

INTERNAL STANDARD TABLE

********** 07-18-1991 11:42:43 Version 5.0 **********

* Sample Name: QC check Data File: a:d41.ch4 *
* Date: 04-10-1991 09:05:25 Method: DAFCIA 07-18-1991 17:41:55 # 91 *
* Interface: 16 Cycle#: 4 Operator DEP Channel#: 1 Vial#: N.A. *
* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: me 7.0ml/min *
* Conditions: 8/44-55@6-140@10 spt37.6:1 mbu33 N2 FIDr11/ECDr1 *
* Detector 0: FID Detector 1: ECD *
* Chrom. Information: #1/M603;#2/M610:tc11/m05T:IS/m61e *

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 30.00
Internal Standard Amount: 100
Sample Weight: 5.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
	3.592	- 11DCE	254 ~~13.8944~~	0.0767%	3848	657	5.9	1		10		3.6108E-03
2	3.873		2.8291	0.0156%	784	165	4.8	1		10		3.6108E-03
3	4.254	- MeCl2	3360 ~~16.3648~~	0.0903%	4532	715	6.3	1		10		3.6108E-03
4	4.686		0.7999	0.0044%	222	52	4.2	1		10		3.6108E-03
5	4.966		0.5413	0.0030%	150	32	4.7	1		10		3.6108E-03
6	5.358	11DCEa	1990 ~~899.1615~~	4.9635%	3008	336	9.0	1	10	10	-2.513	2.9880E-01
7	5.709		0.0869	0.0005%	24	16	1.5	1		10		3.6108E-03
8	6.050		0.4673	0.0026%	129	19	6.7	1		10		3.6108E-03
9	6.722	IS-1	100 ~~270.5971~~	1.4937%	74941	12510	6.0	2		10		3.6108E-03
10	6.893	~~IS-1/ecd~~ CHCl3	483 ~~100.0000~~	0.0000%	166167	24130	6.9	2	10	10	0	6.0180E-04
11	7.174	- 111TCEa	493 ~~2790.4722~~	20.9240%	1049754	144973	7.2	3		10		3.6108E-03
12	7.465	- CCl4	595 ~~2593.2578~~	14.3152%	718191	106086	6.8	4		10		3.6108E-03
13	8.659		1.6756	0.0092%	464	104	4.5	2		10		3.6108E-03
14	8.849	TCE/ecd	778.2956	4.2963%	339222	55667	6.1	3	19	19	-.1186	2.2943E-03
15	9.150	- 12DCPa	4849 ~~354.9529~~	1.9594%	9793	1095	8.9	4		19		3.6244E-02
	9.371	~~12DCPa~~	~~4880.6587~~	26.9420%	9853	1142	8.6	4	19	19	0	4.9535E-01
	9.612	BrCl2methane	148.2238	0.8182%	136237	23679	5.8	2	19	19	-.0739	1.0880E-03
18	10.294	c13DCPe	810.6054	4.4747%	17695	3200	5.5	3	19	19	0	4.5810E-02
19	11.207	IS#2/ecd	100.0000	0.0000%	16554	3411	4.9	2	19	19	0	6.0407E-03
20	11.378	112TCEa	153.9139	0.8496%	4049	913	4.4	2	19	19	-.1686	3.8016E-02
21	11.568	PCE/ecd	[illegible]	4.7592%	2753451	528943	5.2	3	19	19	0	3.1311E-04
22	11.930	BrCl2methane	[illegible]	0.8704%	48067	11246	4.3	4	19	19	.1108	3.2805E-03
23	12.943		[illegible]	0.9503%	4750	781	6.1	4		19		3.6244E-02
24	13.966	CHBr3	[illegible]	1.4166%	36467	11850	7.3	2	25	19	0	2.9678E-03
25	14.348	IS3/ecd	[illegible]	3.6101%	239515	36038	6.6	2	25	19	0	2.7304E-03
26	14.709	1122PCEa	[illegible]	3.1183%	29190	4633	6.3	2	25	19	0	1.9352E-02
27	15.030	IS3#2	731.1744	4.0362%	70503	8336	8.5	1	25	19	0	1.0371E-02

TOTAL AMOUNT = 18115.4355

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
11DCEe/e	3.70	IS-1/ecd
MeCl2	4.38	IS-1/ecd
CHCl3	7.07	IS-1/ecd
111TCEa	7.35	IS-1/ecd
CCl4	7.64	IS-1/ecd
12DCEa	~~7.99~~ 7.84	IS-1/ecd

Several peaks misidentified corrected 7/17/91

area 5561 Conc = 1625 PPB

ORIGINAL
(Red)

11DCE

$$\frac{3848}{74941} \times \frac{100}{0.119} \times \frac{30}{5} = 259.$$

MeCl2 $$\frac{4532}{74941} \times \frac{100}{0.0100} \times \frac{30}{5} = 3360.$$

11DCEa $$\frac{3008}{74941} \times \frac{100}{0.0121} \times \frac{30}{5} = 1990.$$

12DCEa $$\frac{5561}{74941} \times \frac{100}{0.0274} \times \frac{30}{5} = 1625$$

CHCl3 $$\frac{166167}{74941} \times \frac{100}{2.757} \times \frac{30}{5} = 483.$$

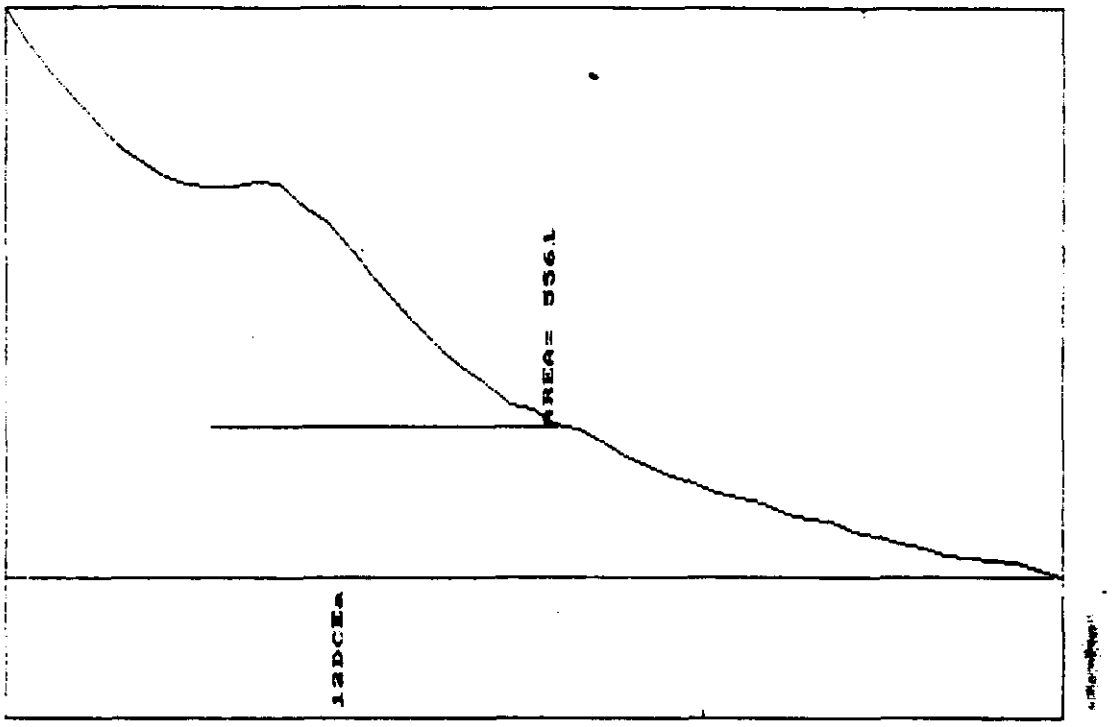
111TCEa $$\frac{1049754}{74941} \times \frac{100}{17.063} \times \frac{30}{5} = 493.$$

CCl4 $$\frac{718191}{74941} \times \frac{100}{96.590} \times \frac{30}{5} = 59.5$$

12DCPa $$\frac{9793}{16537} \times \frac{100}{0.0732} \times \frac{30}{5} = 4849$$

START TIME= 7.786 START HEIGHT= 28833
STOP TIME= 7.936 STOP HEIGHT= 28833
AREA = 556.
Plot of data file: A:D410H4.PTS
Date: 07-12-1991 Time: 07:43:52
Sample Name: QC check
Start Time= 7.70Stop Time = 8.16Min. Scale= 28238Max. Scale= 30474

P. 3 of 3
ORIGINAL (Red)
E: D410H4



Concentration of 1,2-Dichloroethane in QC Check sample D410H4.

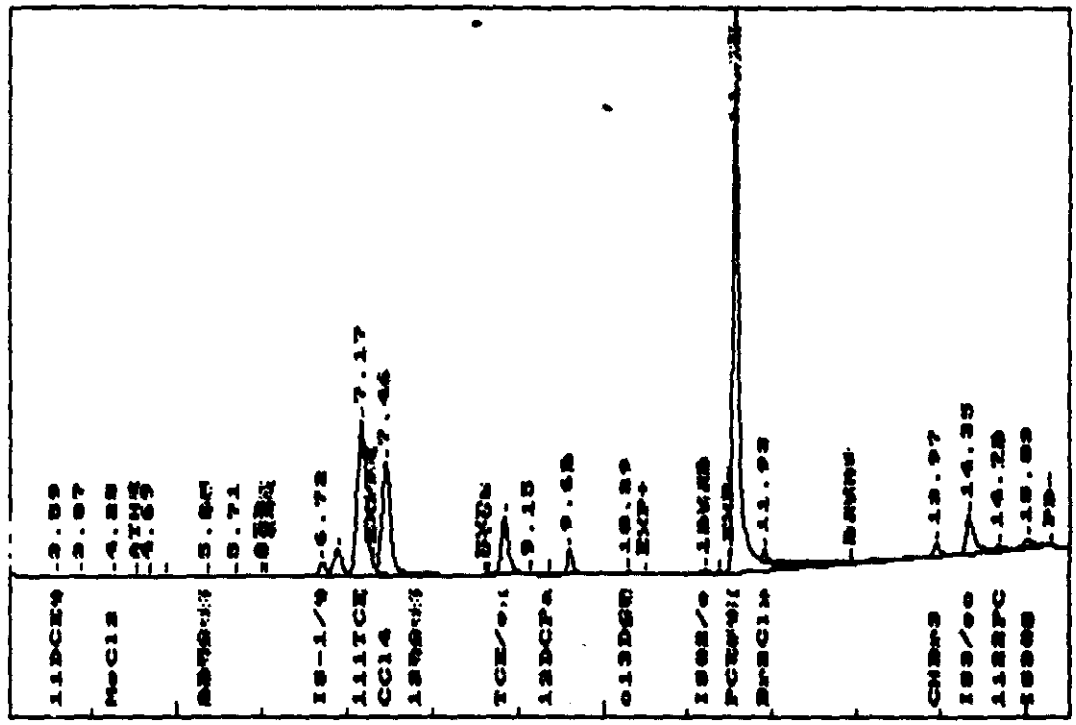
$$\frac{\text{spl area}}{\text{IS area}} \times \frac{100\ (\text{conc. of IS})}{\text{RRF}} \times \frac{\text{DF}}{\text{spl wt.}}$$

$$\frac{5561}{74941} \times \frac{100}{\cancel{0.01220}\ 0.0274} \times \frac{30}{5} = \cancel{3649\ \text{PPB}}\ 1625\ \text{PPB}$$

DK 7/17/91

Areas, times, and heights stored in: E:D410H4.ATB
Data File = E:D410H4.PTS Printed on 04-10-1991 at 09:25:06
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 27199 uv High Value: 560022 uv Scale factor: 1.0

ORIGINAL (Red)



ORIGINAL

EXTERNAL STANDARD TABLE

```
******************** 07-24-1991 11:11:16 Version 5.0 ********************
* Sample Name: QC check                          Data File: e:c410h4      *
* Date: 04-10-1991 09:05:25 Method: CAFISH 07-24-1991 11:09:07  #  93     *
* Interface: 16  Cycle#:  4    Operator DEK Channel#: 0    Vial#: N.A.    *
* Starting Peak Width:  6   Threshold:  .5  Area Threshold: 50            *
*************************************************************************
  Instrument Type: VARIAN 3300          Column Type: db-624               *
*              Solvent Description: He 7.00ml/min                         *
* Conditions: 40H4-55@6-140@10 sp:37.6:1 Mkup33 N2 FIDr11/ECD=1           *
*            Detector 0: FID                  Detector 1: ECD             *
* Misc. Information: #1/M603;#2/M610;tc11/m067;IS/m616                    *
*************************************************************************
Starting Delay:    3.00                    Ending retention time:    15.50
Area reject:        0                      One sample per   0.602 sec.
Amount injected:        1.00               Dilution factor:        1.00
Sample Weight:          1.000000
```

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in QCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	6.421	IS-1/pid	72.3265	19.7536%	17851	3116	5.7	2	0	-.7751	4.05165-03
1.	9.090	IS-2/pid	82.8110	22.6171%	6904	1426	4.8	1	0	-.4395	1.1995-02
28	13.997	IS-3/pid	78.5749	21.4602%	15938	2388	6.7	3	0	-.2859	[illegible]
30	14.568	IS3#2	132.4303	36.1690%	16409	2075	7.9	2	0	-.6160	[illegible]

TOTAL AMOUNT = 366.1428

ORIGINAL (Red)

***** EXTERNAL STANDARD TABLE *****

********** 06-17-1991 12:17:36 Version 5.0 **********

* Sample Name: QC check Data File: E:D410H4 *
* Date: 04-10-1991 09:05:25 Method: DAPISH 06-17-1991 10:11:22 # 80 *
* Interface: 16 Cycle#: 4 Operator DEK Channel#: 1 Vial#: N.A. *
* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *
* Detector 0: PID Detector 1: ECD *
* Misc. Information: #1/M603;#2/M610;tcl1/m067;IS/m616 *

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in QCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	6.722	IS-1/ecd	82.0077	29.1259%	74941	12510	6.0	2	0	-.8875	[illegible]
19	11.207	IS#2/ecd	60.3142	21.4212%	16554	3411	4.9	2	0	-.4456	[illegible]
25	14.348	IS3/ecd	65.7406	23.3485%	239515	36038	6.6	2	0	-.2789	[illegible]
27	15.030	IS3#2	73.5003	26.1044%	70503	8336	8.5	1	0	-.1998	[illegible]

TOTAL AMOUNT = 281.5628

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE; p. 1 of 2

Sample Name: QC check
Disc File: E:C410H4.ATB

Printout Date/Time: 04-17-1991 09:04:33
Method File: C:\NELSON\CAPCCH.MET Updated: 04-16-1991 14:00:58 version: 124
RT Window Width File: C:\NELSON\CAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

ATB File No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window
1	11DCE/acet	3.311	-0.050	0.085	10	-0.024	0.076	R-or M-file IS dont bracket			
2	CS2	3.592	-0.040	0.140	10	-0.012	0.087	R-or M-file IS dont bracket			
3	MeCl2	3.973	-0.040	0.135	10	-0.009	0.086	R-or M-file IS dont bracket			
5	t12DCEe	4.415	-0.050	0.127	10	-0.016	0.056	R-or M-file IS dont bracket			
7	2-butanone	5.187	-0.060	0.101	10	-0.020	0.022	R-or M-file IS dont bracket			
9	c12DCE/VAc	6.040	-0.070	0.098	10	-0.023	0.024	R-or M-file IS dont bracket			
10	IS-1/pid	6.421	-0.050	0.121	10	0.000	0.020	R-or M-file IS dont bracket			
13	benzene	7.505	-0.060	0.104	10	-0.002	0.041	10	15	-0.0142	0.0200
14	TCE	8.558	-0.050	0.103	15	-0.012	0.027	10	15	-0.0081	0.0249
15	IS-2/pid	9.090	-0.040	0.094	15	0.000	0.020	R-or M-file IS dont bracket			
	c13DCP	9.993	-0.040	0.144	15	0.004	0.161	15	28	0.0000	0.1570
17	4me2pent	10.244	-0.050	0.092	15	-0.005	0.023	15	28	-0.0100	0.0200
18	toluene	10.475	-0.050	0.105	15	-0.004	0.031	15	28	-0.0100	0.0225
19	t13DCP	10.816	-0.040	0.085	15	0.008	0.042	15	28	-0.0000	0.0209
21	PCE/p	11.270	-0.050	[illegible]	15	-0.000	0.046	15	28	-0.0100	0.0201
22	2-hexanone	[illegible]	[illegible]	[illegible]	15	0.000	0.058	15	28	-0.0100	0.0270
24	cl-benzene	[illegible]	[illegible]	[illegible]	28	-0.014	0.031	15	28	-0.0100	0.0217
25	eth-benzene	[illegible]	[illegible]	[illegible]	28	-0.004	0.020	15	28	0.0000	0.0200
26	p&mxylene	12.833	-0.050	0.095	28	-0.013	0.020	15	28	-0.0100	0.0200
27	oxyl/styrene	13.395	-0.050	0.095	28	-0.012	0.020	15	28	-0.0100	0.0209
28	IS-3/pid	13.997	-0.040	0.088	28	0.000	0.020	R-or M-file IS dont bracket			
30	IS3#2	14.568	-0.090	0.092	28	-0.048	0.026	R-or M-file IS dont bracket			

ORIGINAL (Red)

RETENTION TIME EVALUATION TABLE; p. 2 of 2

Sample Name: QC check
Disc File: E:C410H4.ATB

Printout Date/Time: 04-17-1991 09:04:40
Method File: C:\NELSON\CAPCCH.MET Updated: 04-16-1991 14:00:58 version: 124
RT Window Width File: C:\NELSON\CAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

Method File	Peak	Compound Name	External Standard Method: Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Relative Retention Time Method: Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	RRT RT Window High	Retention Time Index Method: Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	Ret.Index Window Low	Ret.Index Window High
	1	11DCE/acet	3.361	3.276	3.446	7	3.335	3.259	3.411	R-or M-file IS dont bracket compound				
	2	CS2	3.632	3.492	3.772	7	3.604	3.517	3.691	R-or M-file IS dont bracket compound				
	3	MeCl2	4.013	3.878	4.149	7	3.982	3.896	4.068	R-or M-file IS dont bracket compound				
	4	t12DCEe	4.465	4.338	4.592	7	4.430	4.374	4.487	R-or M-file IS dont bracket compound				
	5	2-butanone	5.247	5.147	5.348	7	5.207	5.184	5.229	R-or M-file IS dont bracket compound				
	6	c12DCE/VAc	6.110	6.012	6.208	7	6.063	6.039	6.087	R-or M-file IS dont bracket compound				
	7	IS-1/pid	6.472	6.351	6.592	7	6.421	6.401	6.441	R-or M-file IS dont bracket compound				
	8	benzene	7.565	7.461	7.669	7	7.507	7.465	7.548	7	10	7.5191	7.4991	7.5391
	9	TCE	8.609	8.506	8.711	10	8.571	8.544	8.598	7	10	8.5665	8.5417	8.5914
	10	IS-2/pid	9.130	9.037	9.224	10	9.090	9.070	9.110	R-or M-file IS dont bracket compound				
	11	c13DCP	10.033	9.890	10.177	10	9.989	9.828	10.151	10	21	9.9932	9.8363	10.1502
	[illegible]	4me2pent	10.294	10.202	10.386	10	10.249	10.226	10.272	10	21	10.2541	10.2341	10.2741
	13	toluene	10.525	10.420	10.630	10	10.479	10.447	10.510	10	21	10.4849	10.4624	10.5073
	14	t13DCP	10.856	10.771	10.941	10	10.808	10.767	10.850	10	21	10.8160	10.7951	10.8369
	15	PCE/p	11.[illegible]	11.232	11.423	10	11.278	11.232	11.324	10	21	11.2875	11.2674	11.3076
	16	2-hexanone	[illegible]	[illegible]	[illegible]	10	11.458	11.400	11.516	10	21	11.4681	11.4412	11.4951
	17	cl-benzene	[illegible]	[illegible]	[illegible]	21	12.496	12.465	12.527	10	21	12.4915	12.4699	12.5132
	18	eth-benzene	[illegible]	[illegible]	[illegible]	21	12.666	12.646	12.686	10	21	12.6621	12.6421	12.6821
	19	p&mxylene	12.[illegible]	12.787	12.978	21	12.846	12.826	12.866	10	21	12.8427	12.8227	12.8627
	20	oxyl/styrene	13.445	13.349	13.540	21	13.406	13.386	13.426	10	21	13.4046	13.3846	13.4246
	21	IS-3/pid	14.037	13.949	14.124	21	13.997	13.977	14.017	R-or M-file IS dont bracket compound				
	22	IS3#2	14.659	14.567	14.751	21	14.617	14.591	14.643	R-or M-file IS dont bracket compound				

RETENTION TIME EVALUATION TABLE; p. 1 of 2

ORIGINAL (Red)

Sample Name: QC check
Disc File: E:D410H4.ATB

Printout Date/Time: 04-17-1991 09:07:44
Method File: C:\NELSON\DAPCCH.MET Updated: 04-16-1991 15:56:00 version: 126
RT Window Width File: C:\NELSON\DAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

ATB File Peak No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window
1	11DCEe/e	3.592	-0.050	0.148	9	-0.018	0.091	R-or M-file IS dont bracket			
3	MeCl2	4.254	-0.060	0.145	9	-0.022	0.075	R-or M-file IS dont bracket			
6	11DCEa	5.358	-0.050	0.098	9	-0.002	0.020	R-or M-file IS dont bracket			
9	IS-1/ecd	6.722	-0.060	0.129	9	0.000	0.020	R-or M-file IS dont bracket			
10	CHCl3	6.893	-0.060	0.132	9	0.002	0.026	9	19	-0.0004	0.0274
11	111TCEa	7.174	-0.060	0.093	9	0.004	0.129	9	19	-0.0010	0.1037
12	CCl4	7.465	-0.050	0.086	9	0.017	0.114	9	19	0.0084	0.0720
14	TCE/ecd	8.849	-0.050	0.084	19	-0.011	0.111	9	19	0.0053	0.0305
15	12DCPa	9.150	-0.070	0.095	19	-0.029	0.032	9	19	-0.0155	0.0200
16	BrCl2methane	9.371	-0.050	0.108	19	-0.008	0.159	9	19	0.0041	0.1076
18	c13DCPe	10.294	-0.050	0.103	19	-0.004	0.168	9	19	0.0020	0.1384
	IS#2/ecd	11.207	-0.050	0.118	19	0.000	0.020	R-or M-file IS dont bracket			
20	112TCEa	11.378	-0.070	0.242	19	-0.019	0.118	19	25	-0.0207	0.1270
21	PCE/ecd	11.568	-0.050	0.073	19	0.002	0.128	19	25	-0.0012	0.1092
22	Br2Clmethane	11.930	[illegible]	0.121	19	0.013	0.200	19	25	0.0078	0.1585
24	CHBr3	[illegible]	[illegible]	[illegible]	25	-0.011	0.076	19	25	-0.0088	0.0764
25	IS3/ecd	[illegible]	[illegible]	[illegible]	25	0.000	0.020	R-or M-file IS dont bracket			
26	1122PCEa	[illegible]	[illegible]	[illegible]	25	0.001	0.078	R-or M-file IS dont bracket			
27	IS3#2	15.[illegible]	-0.030	0.091	25	0.012	0.048	R-or M-file IS dont bracket			

RETENTION TIME EVALUATION TABLE; p. 2 of 2

Sample Name: QC check
Disc File: E:D410H4.ATB

ORIGINAL
(Red)

Printout Date/Time: 04-17-1991 09:07:50
Method File: C:\NELSON\DAPCCH.MET Updated: 04-16-1991 15:56:00 version: 126
RT Window Width File: C:\NELSON\DAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

Method File Number	Compound Name	External Standard Method: Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Relative Retention Time Method: Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	RRT RT Window High	Retention Time Index Method: Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	Ret. Index Window Low	Ret. Index Window High
1	11DCEe/e	3.642	3.494	3.790	4	3.610	3.518	3.702	R-or M-file IS dont bra[illegible]				
2	MeCl2	4.314	4.169	4.460	4	4.276	4.201	4.351	R-or M-file IS dont bra[illegible]				
3	11DCEa	5.408	5.310	5.506	4	5.360	5.340	5.380	R-or M-file IS dont bra[illegible]				
4	IS-1/ecd	6.783	6.653	6.912	4	6.722	6.702	6.742	R-or M-file IS dont bracket [illegible]				
5	CHCl3	6.953	6.821	7.085	4	6.891	6.866	6.917	4	13	6.8933	6.8659	6.9207
6	111TCEa	7.234	7.141	7.327	4	7.170	7.041	7.299	4	13	7.1749	7.0712	7.2785
7	CCl4	7.515	7.429	7.601	4	7.448	7.334	7.563	4	13	7.4564	7.3844	7.5284
8	12DCEa	7.866	7.766	7.967	4	7.796	7.737	7.856	4	13	7.8084	7.7757	7.8411
9	TCE/ecd	8.900	8.815	8.984	13	8.860	8.749	8.971	4	13	8.8441	8.8136	8.8747
10	12DCPa	9.221	9.125	9.316	13	9.180	9.147	9.212	4	13	9.1659	9.1459	9.1859
[illegible]	BrCl2methane	9.421	9.313	9.530	13	9.379	9.220	9.539	4	13	9.3671	9.2594	9.4747
[illegible]	c13DCPe	10.344	10.242	10.447	13	10.298	10.130	10.466	4	13	10.2922	10.1538	10.4305
13	IS#2/ecd	11.257	11.139	11.376	13	11.207	11.187	11.227	R-or M-file IS dont bracket compound				
14	112TCEa	11.448	11.206	11.690	13	11.397	11.279	11.515	13	18	11.3985	11.2715	11.5256
15	PCE/ecd	11.619	[illegible]	[illegible]	13	11.567	11.438	11.696	13	18	11.5696	11.4605	11.6788
16	Br2Clmethane	[illegible]	[illegible]	[illegible]	13	11.916	11.716	12.117	13	18	11.9219	11.7634	12.0805
17	CHBr3	[illegible]	[illegible]	[illegible]	18	13.978	13.901	14.054	13	18	13.9753	13.8989	14.0516
18	IS3/ecd	[illegible]	[illegible]	[illegible]	18	14.348	14.328	14.368	R-or M-file IS dont bracket compound				
19	1122PCEa	14.7[illegible]	[illegible]	[illegible]	18	14.708	14.630	14.786	R-or M-file IS dont bracket compound				
20	IS3#2	15.060	14.969	15.151	18	15.018	14.970	15.066	R-or M-file IS dont bracket compound				

ORIGINAL (Red)

****** INTERNAL STANDARD TABLE ******

********** 07-18-1991 12:44:27 Version 5.0 **********

* Sample Name: cont cal #2 Data File: e:c410h5 *
* Date: 04-10-1991 09:30:12 Method: CAFCCH 07-15-1991 13:33:18 # 142 *
* Interface: 16 Cycle#: 5 Operator DEK Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *
* Detector 0: PID Detector 1: ECD *
* Misc. Information: #1/M603;#2/M610;tc11/m067;IS/m616 *

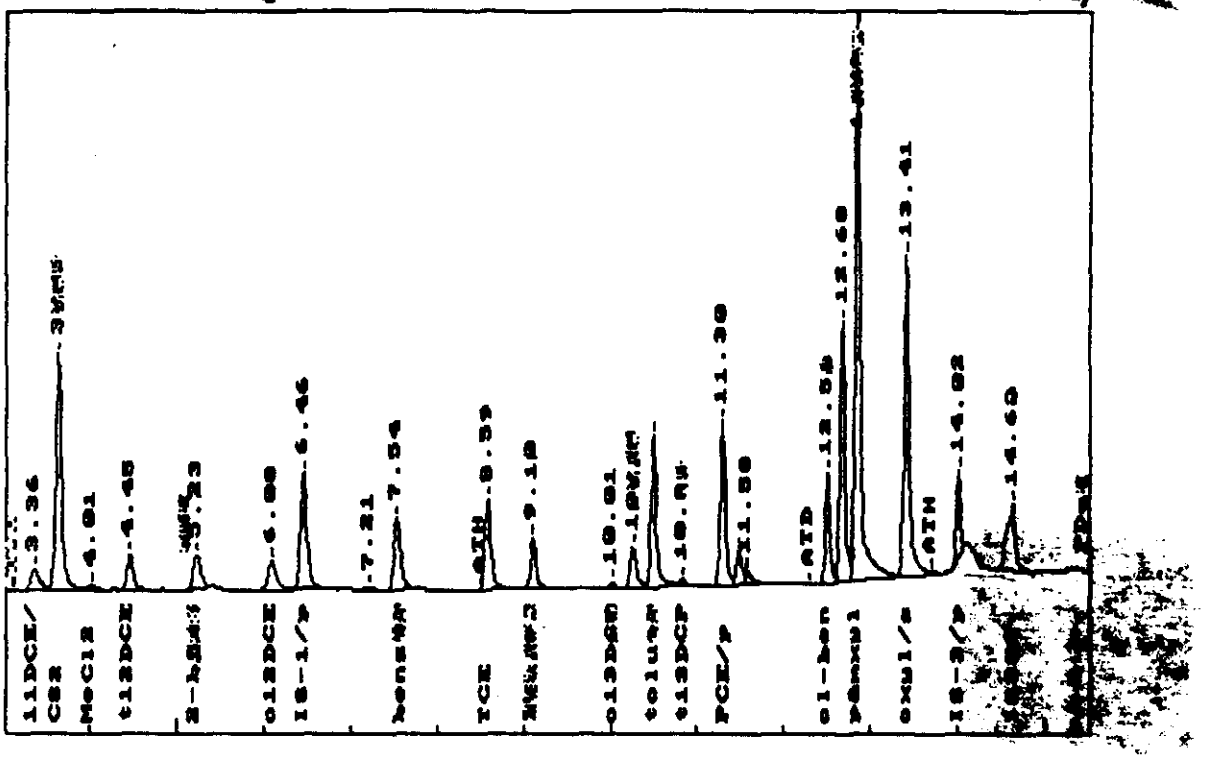
Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 30.00
Internal Standard Amount: 100
Sample Weight: 5.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	HEIGHT BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
	3.361	11DCE/acet	270.3723	2.0674%	2800	413	6.8	2	7	7	.1552	9.6563E-02
2	3.642	CS2	1562.6525	11.9488%	21784	4763	4.6	3	7	7	.4319	7.175[redacted]
3	4.013	MeCl2	2175.7786	16.6370%	423	77	5.5	4	7	7	.1552	[redacted]
4	4.455	t12DCEe	244.8317	1.8721%	3690	716	5.2	1	7	7	0	[redacted]
5	5.227	2-butanone	1206.7234	9.2272%	3963	693	5.7	1	7	7	-.2277	[redacted]
6	6.080	c12DCE/VAc	229.4866	1.7548%	4422	597	7.4	2	7	7	-.3380	[redacted]
7	6.462	IS-1/pid	100.0000	0.0000%	13403	2356	5.7	2	7	7	0	7.4612E-03
8	7.214		12.7473	0.0975%	285	49	5.8	1		7		4.4767E-02
9	7.535	benzene	255.9690	1.9573%	8174	1440	5.7	1	7	7	-.2432	3.1316E-02
10	8.589	TCE	254.6514	1.9472%	8914	1821	4.9	1	11	11	0	2.8569E-02
11	9.100	IS-2/pid	100.0000	0.0000%	4841	1031	4.7	1	11	11	0	2.0656E-02
12	10.013	c13DCP	289.6105	2.2145%	493	127	3.9	1	11	11	.1301	5.8704E-01
13	10.264	4me2pent	1497.3455	11.4494%	4366	833	5.2	2	11	11	0	3.4293E-01
14	10.505	toluene	280.9841	2.1485%	13438	3091	4.3	2	11	11	.1394	2.0910E-02
15	10.836	t13DCP	309.5113	2.3667%	755	150	5.0	2	11	11	.1452	4.1012E-01
[illegible]	11.298	PCE/p	275.6639	2.1079%	13064	3331	3.9	2	11	11	0	2.1102E-02
	11.479	2-hexanone	1136.3855	8.6893%	3400	707	4.8	2	11	11	0	3.3423E-01
18	11.579		190.7187	1.4583%	1539	265	5.8	2		11		1.2393E-01
19	12.512	cl-benzene	301.5362	2.3057%	8940	2256	4.0	2	23	11	-.0171	3.3728E-02
20	12.682	eth-benzene	326.2829	2.4949%	19765	5245	3.8	2	23	11	0	1.6508E-02
21	12.853	p&mxylene	[redacted]	5.1160%	49444	11539	4.3	2	23	11	0	1.3532E-02
22	13.415	oxyl/styrene	[redacted]	3.9222%	27294	6449	4.2	2	23	11	0	1.8793E-02
23	14.017	IS-3/pid	[redacted]	2.2049%	5661	1729	3.3	1	23	11	0	5.0941E-02
24	14.629	IS3#2	[redacted]	6.0124%	9429	1352	7.0	1	23	11	0	8.3391E-02

TOTAL AMOUNT [redacted]

Areas, times, and heights stored in: E:C410H5.ATB
Data File = E:C410H5.PTS Printed on 04-10-1991 at 09:47:47
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mV
Low Value: 8543 uv High Value: 20294 uv Scale factor: 1.0

ORIGINAL (Red)



***** INTERNAL STANDARD TABLE *****

********** 07-18-1991 12:45:24 Version 5.0 **********

* Sample Name: cont cal #2 Data File: e:d410h5 *

* Date: 04-10-1991 09:30:12 Method: DAPCCH 07-15-1991 13:41:55 # 91 *

* Interface: 16 **Cycle#: 5** Operator DEK Channel#: 1 Vial#: N.A. *

* Starting Peak **Width: 6** Threshold: .5 Area Threshold: 50 *

* Instrument Type: VARIAN 3300 Column Type: db-624 *

* Solvent Description: He 7.00ml/min *

* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *

* Detector 0: PID Detector 1: ECD *

* Misc. Information: #1/M603;#2/M610;tc11/m067;IS/m616 *

Starting Delay: 3.00 Ending retention time: 15.50

Area reject: 0 One sample per 0.602 sec.

Amount injected: 1.00 Dilution factor: 30.00

Internal Standard Amount: 100

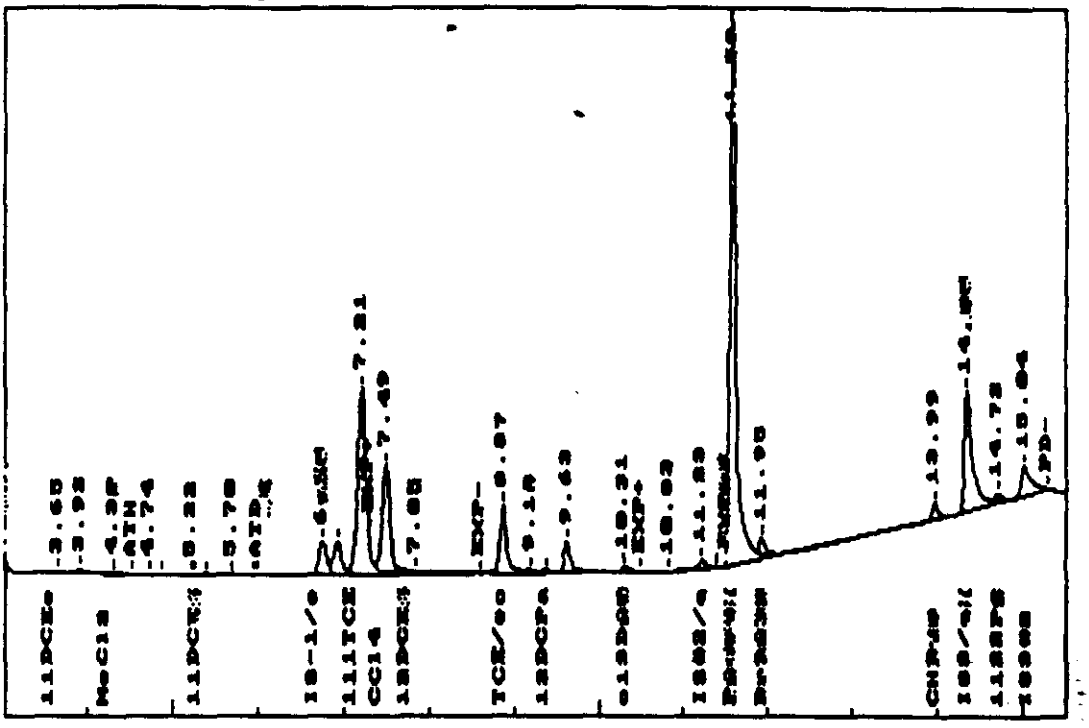
Sample Weight: 5.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
.	3.652	11DCEe/e	211.5299	1.4304%	2519	476	5.3	1	11	11	.5730	8.3961E-02
2	3.923		59.9167	0.4052%	6010	1307	4.6	1		11		[illegible]
3	4.304	MeCl2	2361.6958	15.9698%	2555	423	6.0	1	11	11	0	[illegible]
4	4.736		1.4073	0.0095%	141	38	3.7	1		11		[illegible]
5	4.866		1.1612	0.0079%	116	29	4.0	1		11		[illegible]
6	5.217		0.5832	0.0039%	59	27	2.2	2		11		[illegible]
7	5.268		1.8397	0.0124%	185	63	3.0	2		11		9.9689E-03
8	5.408	11DCEa	2573.8184	17.4042%	3119	304	10.3	2	11	11	.2967	8.2523E-01
9	5.699		1.1582	0.0078%	116	28	4.1	1		11		9.9689E-03
10	5.950		0.2941	0.0020%	29	15	2.0	1		11		9.9689E-03
11	6.762	IS-1/ecd	100.0000	0.0000%	60187	10296	5.8	2	11	11	0	1.6615E-03
12	6.933	CHCl3	254.2146	1.7190%	70295	10194	6.9	2	11	11	0	3.6164E-03
13	7.214	111TCEa	245.3604	1.6591%	419960	58760	7.1	3	11	11	0	5.8425E-04
14	7.495	CCl4	22.4565	0.1519%	217586	34142	6.4	4	11	11	0	1.0321E-04
15	7.846	12DCEa	3622.3892	24.4947%	9956	732	13.6	4	11	11	0	3.6383E-01
	8.870	TCE/ecd	305.7133	2.0672%	123855	21350	5.8	3	22	22	0	2.4683E-03
.	9.191		143.8740	0.9729%	3690	527	7.0	4		22		3.8993E-02
18	9.401	12DCPa	2326.7954	15.7338%	4366	640	6.8	2	22	22	0	5.3291E-01
19	9.632	BrCl2methane	59.9476	0.4054%	51216	9610	5.3	2	22	22	0	1.1705E-03
20	10.314	c13DCPe	361.0690	2.4416%	7326	1332	5.5	1	22	22	0	4.9284E-02
21	10.826		[illegible]	0.0210%	79	45	1.8	1		22		3.8993E-02
22	11.227	IS#2/ecd	[illegible]	0.0000%	15387	2849	5.4	3	22	22	0	6.4988E-03
23	11.398	112TCEa	[illegible]	0.3024%	1093	317	3.5	4	22	22	-.1712	4.0899E-02
24	11.589	PCE/ecd	[illegible]	2.0806%	913409	176710	5.2	3	22	22	0	3.3686E-04
25	11.950	Br2Clmethane	[illegible]	0.6387%	26763	5222	5.1	4	22	22	.1000	3.5293E-03
26	13.986	CHBr3	[illegible]	0.0269%	1247	5108	0.2	2	27	22	0	3.1929E-03
27	14.358	IS3/ecd	770.3344	5.2090%	262243	38242	6.9	3	27	22	0	2.9375E-03
28	14.719	1122PCEa	163.4567	1.1053%	7851	1839	4.3	4	27	22	0	2.0820E-02
29	15.040	IS3#2	845.5289	5.7175%	75783	9299	8.1	1	27	22	0	1.1157E-02

TOTAL AMOUNT = 14788.4893

Areas, times, and heights stored in: E:D410H5.ATB
Data File = E:D410H5.PTS Printed on 04-10-1991 at 09:50:07
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 27191 uv High Value: 206763 uv Scale factor: 1.0

ORIGINAL (Red)



```
*****   EXTERNAL STANDARD TABLE   *****
********************* 07-24-1991 11:11:59 Version 5.0 *********************
* Sample Name: cont  cal #2                    Data File: e:c410h5          *
* Date: 04-10-1991 09:30:12 Method: CAPISH 07-24-1991 11:09:07  #  93       *
* Interface: 16  Cycle#:  5    Operator DEK Channel#: 0    Vial#: N.A.     *
* Starting Peak Width:  6   Threshold: .5  Area Threshold: 50               *
*****************************************************************************
* Instrument Type: VARIAN 3300          Column Type: db-624                 *
*              Solvent Description: He 7.00ml/min                           *
* Conditions: 40H4-55@6-140@10 sp537.6:1 MkupII N2 PIDr11/ECDr1             *
*            Detector 0: PID                  Detector 1: ECD               *
* Misc. Information: #1/M603;#2/M610;tcl1/m067;IS/m616                      *
*****************************************************************************
Starting Delay:    3.00                    Ending retention time:    15.50
Area reject:        0                      One sample per   0.602 sec.
Amount injected:        1.00               Dilution factor:        1.00
Sample Weight:          1.000000
```

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in QCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	6.462	IS-1/pid	54.3027	25.0961%	13403	2356	5.7 2	0	-.1550	4.0516E-03
1.	9.100	IS-2/pid	58.0692	26.8368%	4841	1031	4.7 1	0	-.3296	1.1995E-02
23	14.017	IS-3/pid	27.9076	12.8975%	5661	1729	3.3 1	0	-.1429	[illegible]
24	14.629	IS3#2	76.0998	35.1696%	9429	1352	7.0 1	0	-.2053	[illegible]

TOTAL AMOUNT = 216.3792

ORIGINAL (Red)

ORIGINAL
(Red)

```
******   EXTERNAL STANDARD TABLE   ******
******************** 06-17-1991 12:21:16 Version 5.0 **********************
* Sample Name: cont  cal #2                        Data File: E:D410H5      *
* Date: 04-10-1991 09:30:12 Method: DAFISH 06-17-1991 10:11:22  #  80      *
* Interface: 16  Cycle#:  5    Operator DEK Channel#: 1    Vial#: N.A.     *
* Starting Peak Width:  6   Threshold: .5  Area Threshold: 50              *
*************************************************************************
* Instrument Type: VARIAN 3300          Column Type: db-624               *
*              Solvent Description: He 7.00ml/min                         *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 FIDr11/ECDr1           *
*             Detector 0: FID                  Detector 1: ECD            *
* Misc. Information: #1/M603;#2/M610;tc11/m067;IS/m616                    *
*************************************************************************
Starting Delay:    3.00                    Ending retention time:    15.50
Area reject:        0                      One sample per   0.602 sec.
Amount injected:        1.00               Dilution factor:        1.00
Sample Weight:          1.000000
```

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in QCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	6.762	IS-1/ecd	65.8630	24.1337%	60187	10296	5.8 2	0	-.2958	[illegible]
22	11.227	IS#2/ecd	56.0629	20.5427%	15387	2849	5.4 3	0	-.2673	[illegible]
27	14.358	IS3/ecd	71.9786	26.3746%	262243	38242	6.9 3	0	-.2092	[illegible]
29	15.040	IS3#2	79.0046	28.9491%	75783	9299	8.1 1	0	-.1332	[illegible]

TOTAL AMOUNT = 272.9091

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE; p. 1 of 2

Sample Name: cont cal #2
Disc File: E:C410H5.ATB

Printout Date/Time: 04-17-1991 09:23:47
Method File: C:\NELSON\CAPCCH.MET Updated: 04-16-1991 14:00:58 version: 124
RT Window Width File: C:\NELSON\CAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

ATB File Pe 'o.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window
1	11DCE/acet	3.361	-0.000	0.085	7	0.005	0.076	R-or M-file IS dont bracket			
2	CS2	3.642	0.010	0.140	7	0.016	0.087	R-or M-file IS dont bracket			
3	MeC12	4.013	0.000	0.135	7	0.006	0.086	R-or M-file IS dont bracket			
4	t12DCEe	4.455	-0.010	0.127	7	-0.003	0.056	R-or M-file IS dont bracket			
5	2-butanone	5.227	-0.020	0.101	7	-0.012	0.022	R-or M-file IS dont bracket			
6	c12DCE/VAc	6.080	-0.030	0.098	7	-0.021	0.024	R-or M-file IS dont bracket			
7	IS-1/pid	6.462	-0.010	0.121	7	0.000	0.020	R-or M-file IS dont bracket			
9	benzene	7.535	-0.030	0.104	7	-0.018	0.041	7	11	-0.0118	0.0200
10	TCE	8.589	-0.020	0.103	11	0.008	0.027	7	11	0.0061	0.0247
11	IS-2/pid	9.100	-0.030	0.094	11	0.000	0.020	R-or M-file IS dont bracket			
[illegible]	c13DCP	10.013	-0.020	0.144	11	0.013	0.161	11	23	0.0082	0.1571
[illegible]	4me2pent	10.264	-0.030	0.092	11	0.004	0.023	11	23	-0.0024	0.0200
14	toluene	10.505	-0.020	0.105	11	0.015	0.031	11	23	0.0072	0.0225
15	t13DCP	10.836	-0.020	0.085	11	0.016	0.042	11	23	0.0065	0.0209
16	PCE/p	11.298	-0.030	0.095	11	0.007	0.046	11	23	-0.0045	0.0201
17	2-hexanone	11.47[illegible]	[illegible]	0.079	11	0.008	0.058	11	23	-0.0049	0.0270
19	cl-benzene	12.5[illegible]	[illegible]	0.103	23	-0.002	0.031	11	23	0.0031	0.0217
20	eth-benzene	12.6[illegible]	[illegible]	[illegible]	23	-0.002	0.020	11	23	0.0027	0.0200
21	p&mxylene	12.853	-0.030	0.095	23	-0.012	0.020	11	23	-0.0077	0.0200
22	oxyl/styrene	13.415	-0.030	0.095	23	-0.011	0.020	11	23	-0.0088	0.0200
23	IS-3/pid	14.017	-0.020	0.088	23	0.000	0.020	R-or M-file IS dont bracket			
24	IS3#2	14.629	-0.030	0.092	23	-0.009	0.026	R-or M-file IS dont bracket			

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE; p. 2 of 2

Sample Name: cont cal #2
Disc File: E:C410H5.ATB

Printout Date/Time: 04-17-1991 09:23:53
Method File: C:\NELSON\CAPCCH.MET Updated: 04-16-1991 14:00:58 version: 124
RT Window Width File: C:\NELSON\CAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

Method	Compound Name	External Standard Method			Relative Retention Time Method					Retention Time Index Method				
Fi Peak Number		Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	RRT RT Window High	Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	Ret.Index Window Low	Ret.Index Window High
1	11DCE/acet	3.361	3.276	3.446	7	3.356	3.280	3.432	R-or M-file IS dont bracket compound				
2	CS2	3.632	3.492	3.772	7	3.626	3.539	3.714	R-or M-file IS dont bracket compound				
3	MeCl2	4.013	3.878	4.149	7	4.007	3.921	4.093	R-or M-file IS dont bracket compound				
4	t12DCEe	4.465	4.338	4.592	7	4.458	4.401	4.514	R-or M-file IS dont bracket compound				
5	2-butanone	5.247	5.147	5.348	7	5.239	5.217	5.262	R-or M-file IS dont bracket compound				
6	c12DCE/VAc	6.110	6.012	6.208	7	6.101	6.077	6.125	R-or M-file IS dont bracket compound				
7	IS-1/pid	6.472	6.351	6.592	7	6.462	6.442	6.482	R-or M-file IS dont bracket compound				
8	benzene	7.565	7.461	7.669	7	7.553	7.512	7.595	7	10	7.5469	7.5269	7.5669
9	TCE	8.609	8.506	8.711	10	8.580	8.553	8.607	7	10	8.5825	8.5577	8.6072
10	IS-2/pid	9.130	9.037	9.224	10	9.100	9.080	9.120	R-or M-file IS dont bracket compound				
[illegible]	c13DCP	10.033	9.890	10.177	10	10.000	9.839	10.162	10	21	10.0051	9.8480	10.1622
[illegible]	4me2pent	10.294	10.202	10.386	10	10.260	10.238	10.283	10	21	10.2665	10.2465	10.2865
13	toluene	10.525	10.420	10.630	10	10.490	10.459	10.522	10	21	10.4978	10.4753	10.5202
14	t13DCP	10.856	10.771	10.941	10	10.820	10.779	10.862	10	21	10.8295	10.8086	10.8504
15	PCE/p	[illegible]	[illegible]	11.423	10	11.290	11.244	11.336	10	21	11.3021	11.2820	11.3222
16	2-hexanone	[illegible]	[illegible]	[illegible]	10	11.470	11.412	11.528	10	21	11.4830	11.4560	11.5100
17	cl-benzene	[illegible]	[illegible]	[illegible]	21	12.514	12.483	12.545	10	21	12.5085	12.4868	12.5302
18	eth-benzene	[illegible]	[illegible]	[illegible]	21	12.684	12.664	12.704	10	21	12.6794	12.6594	12.6994
19	p&mxylene	[illegible]	[illegible]	12.978	21	12.864	12.844	12.884	10	21	12.8604	12.8404	12.8804
20	oxyl/styrene	13.445	13.349	13.540	21	13.425	13.405	13.445	10	21	13.4234	13.4034	13.4434
21	IS-3/pid	14.037	13.949	14.124	21	14.017	13.997	14.037	R-or M-file IS dont bracket compound				
22	IS3#2	14.659	14.567	14.751	21	14.638	14.612	14.664	R-or M-file IS dont bracket compound				

ORIGINAL (Red)

RETENTION TIME EVALUATION TABLE; p. 1 of 2

Sample Name: cont cal #2
Disc File: E:D410H5.ATB

Printout Date/Time: 04-17-1991 09:26:41
Method File: C:\NELSON\DAPCCH.MET Updated: 04-16-1991 15:56:00 version: 126
RT Window Width File: C:\NELSON\DAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

ATB File Peak No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window	
1	11DCEe/e	3.652	0.010	0.148	11	0.021	0.092	R-or M-file IS dont bracket				
3	MeC12	4.304	-0.010	0.145	11	0.003	0.075	R-or M-file IS dont bracket				
8	11DCEa	5.408	0.000	0.098	11	0.016	0.020	R-or M-file IS dont bracket				
11	IS-1/ecd	6.763	-0.020	0.129	11	0.000	0.020	R-or M-file IS dont bracket				
12	CHCl3	6.933	-0.020	0.132	11	0.001	0.026	11	22	0.0004	0.0274	
13	111TCEa	7.214	-0.020	0.093	11	0.001	0.129	11	22	0.0010	0.1034	
14	CCl4	7.495	-0.020	0.086	11	0.002	0.114	11	22	0.0016	0.0718	
15	12DCEa	7.846	-0.020	0.101	11	0.003	0.060	11	22	0.0024	0.0327	
16	TCE/ecd	8.870	-0.030	0.084	22	-0.006	0.111	11	22	-0.0053	0.0305	
18	12DCPa	9.401	0.181	0.095	22	0.205	0.032	11	22	0.2061	0.0200	out.
19	BrCl2methane	9.632	0.211	0.108	22	0.236	0.160	11	22	0.2367	0.1074	out
[illegible]	c13DCPe	10.314	-0.030	0.103	22	-0.002	0.168	11	22	-0.0020	0.1380	
22	IS#2/ecd	11.227	-0.030	0.118	22	0.000	0.020	R-or M-file IS dont bracket				
23	112TCEa	11.398	-0.050	0.242	22	-0.020	0.118	22	27	-0.0201	0.1268	
24	PCE/ecd	11.5[illegible]	-0.030	0.073	22	0.001	0.129	22	27	-0.0000	0.1090	
25	Br2Clmethane	[illegible]	[illegible]	[illegible]	22	0.012	0.200	22	27	0.0100	0.1583	
26	CHBr3	[illegible]	[illegible]	[illegible]	27	-0.001	0.076	22	27	0.0000	0.0762	
27	IS3/ecd	[illegible]	[illegible]	[illegible]	27	0.000	0.020	R-or M-file IS dont bracket				
28	1122PCEa	14.719	-0.030	0.115	27	0.001	0.078	R-or M-file IS dont bracket				
29	IS3#2	15.040	-0.020	0.091	27	0.011	0.048	R-or M-file IS dont bracket				

ORIGINAL (Red)

RETENTION TIME EVALUATION TABLE; p. 2 of 2

Sample Name: cont cal #2
Disc File: E:D410H5.ATB

Printout Date/Time: **04-17-1991** 09:26:48
Method File: C:\NELSON\DAPCCH.MET Updated: 04-16-1991 15:56:00 version: 126
RT Window Width File: C:\NELSON\DAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

Method File Peak	Compound Name	External Standard Method			Relative Retention Time Method					Retention Time Index Method				
		Predictd Ret.Time	Ext. Std. Window Low	High	Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	High		Ref.Peaks No.1	No.2	Predictd Ret.Time	Ret.Index Window Low	High
1	11DCEe/e	3.642	3.494	3.790	4	3.631	3.540	3.723		R-or M-file IS dont bracket compound				
2	MeC12	4.314	4.169	4.460	4	4.302	4.226	4.377		R-or M-file IS dont bracket compound				
3	11DCEa	5.408	5.310	5.506	4	5.392	5.372	5.412		R-or M-file IS dont bracket compound				
4	IS-1/ecd	6.783	6.653	6.912	4	6.763	6.743	6.783		R-or M-file IS dont bracket compound				
5	CHC13	6.953	6.821	7.085	4	6.933	6.907	6.958		4	13	6.9327	6.9053	6.9600
6	111TCEa	7.234	7.141	7.327	4	7.213	7.083	7.342		4	13	7.2130	7.1096	7.3164
7	CC14	7.515	7.429	7.601	4	7.493	7.378	7.607		4	13	7.4933	7.4215	7.5651
8	12DCEa	7.866	7.766	7.967	4	7.843	7.783	7.903		4	13	7.8437	7.8110	7.8763
9	TCE/ecd	8.900	8.815	8.984	13	8.876	8.765	8.987		4	13	8.8748	8.8443	8.9052
10	12DCPa	9.221	9.125	9.316	13	9.196	9.163	9.229		4	13	9.1951	9.1751	9.2151
11	BrC12methane	9.421	9.313	9.530	13	9.396	9.236	9.556		4	13	9.3954	9.2880	9.5027
	c13DCPe	10.344	10.242	10.447	13	10.317	10.149	10.485		4	13	10.3163	10.1783	10.4544
13	IS#2/ecd	11.257	11.139	11.376	13	11.227	11.207	11.247		R-or M-file IS dont bracket compound				
14	112TCEa	11.448	11.206	11.690	13	11.417	11.300	11.535		13	18	11.4180	11.2911	11.5448
15	PCE/ecd	[illegible]	[illegible]	[illegible]	13	11.588	11.459	11.716		13	18	11.5885	11.4795	11.6975
16	Br2Clmethane	[illegible]	[illegible]	[illegible]	13	11.938	11.737	12.138		13	18	11.9397	11.7814	12.0980
17	CHBr3	[illegible]	[illegible]	[illegible]	18	13.987	13.911	14.064		13	18	13.9865	13.9103	14.0627
18	IS3/ecd	[illegible]	[illegible]	[illegible]	18	14.358	14.338	14.378		R-or M-file IS dont bracket compound				
19	1122PCEa	14.747	14.634	14.864	18	14.718	14.640	14.796		R-or M-file IS dont bracket compound				
20	IS3#2	15.060	14.969	15.151	18	15.029	14.981	15.076		R-or M-file IS dont bracket compound				

ORIGINAL
(Red)

***** INTERNAL STANDARD TABLE *****

********** 07-18-1991 12:46:26 Version 5.0 **********

* Sample Name: method blk #2 Data File: e:c410h6 *
* Date: 04-10-1991 10:00:11 Method: CAPCCH 07-15-1991 13:33:18 # 142 *
* Interface: 16 **Cycle#: 6** Operator DEK Channel#: 0 Vial#: N.A. *
* Starting Peak **Width:** 6 Threshold: .5 Area Threshold: 50 *

* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *
* Detector 0: PID Detector 1: ECD *
* Misc. Information: #1/M603;#2/M610;tc11/m067;IS/m616 *

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 30.00
Internal Standard Amount: 100
Sample Weight: 5.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
.	6.040	c12DCE/VAc	ORTW ~~22.5463~~	1.8397%	447	81	5.5	1	2	2	-1.149	[redacted]
2	6.472	IS-1/pid	100.0000	0.0000%	13790	2191	6.3	1	2	2	0	[redacted]
3	9.120	IS-2/pid	100.0000	0.0000%	5278	1113	4.7	1	3	3	0	[redacted]
4	10.515	toluene	2.4075	0.1964%	126	34	3.7	1	3	3	0	[redacted]
5	12.863	p&mxylene	2.3053	0.1881%	186	52	3.6	1	7	3	0	[redacted]
6	13.435	oxyl/styrene	1.6812	0.1372%	98	28	3.5	1	7	3	0	[redacted]
7	14.027	IS-3/pid	399.3406	32.5845%	8546	1385	6.2	3	7	3	0	[redacted]
8	14.358		108.1838	8.8273%	952	126	7.6	4		3		1.1369E-01
9	14.649	IS3#2	679.8507	55.4729%	8888	1123	7.9	2	7	3	0	7.6495E-02
10	15.221		9.2392	0.7539%	81	20	4.1	1		3		1.1369E-01

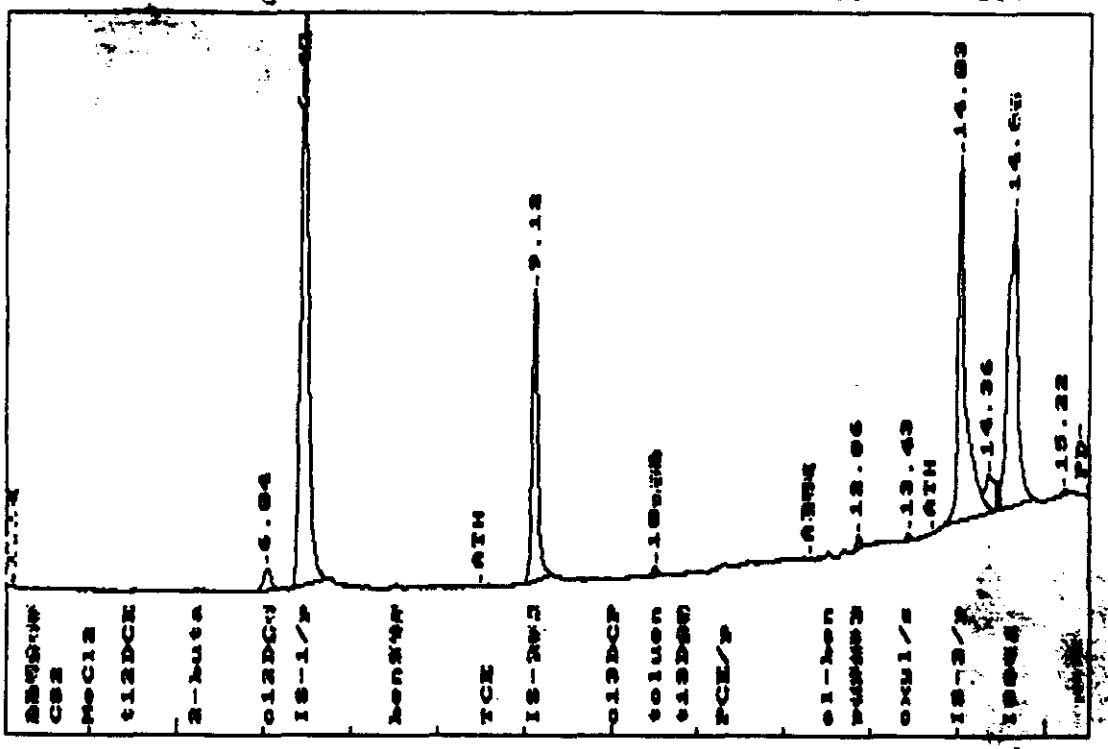
TOTAL AMOUNT = 1225.5544

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
TCE/acet	3.36	IS-1/pid
[illegible]2	3.63	IS-1/pid
MeC12	4.01	IS-1/pid
t12DCEe	4.46	IS-1/pid
2-butanone	5.25	IS-1/pid
benzene	[redacted]	IS-1/pid
TCE	[redacted]	IS-2/pid
c13DCP	[redacted]	IS-2/pid
4me2pent	[redacted]	IS-2/pid
t13DCP	[redacted]	IS-2/pid
PCE/p	[redacted]	IS-2/pid
2-hexanone	11.50	IS-2/pid
cl-benzene	12.52	IS-3/pid
eth-benzene	12.69	IS-3/pid

Areas, times, and heights stored in: E:C410H6.ATB
Data File = E:C410H6.PTS Printed on 04-10-1991 at 10:30:54
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 8528 uv High Value: 10742 uv Scale factor: 1.0

ORIGINAL (Red)



ORIGINAL (Red)

****** INTERNAL STANDARD TABLE ******

********************** 07-18-1991 12:47:30 Version 5.0 ************************

* Sample Name: method blk #2 Data File: e:d410h6 *

* Date: 04-10-1991 10:00:11 Method: DAPCCH 07-15-1991 13:41:55 # 91 *

* Interface: 16 **Cycle#: 6** Operator DEK Channel#: 1 Vial#: N.A. *

* Starting Peak **Width: 6** Threshold: .5 Area Threshold: 50 *

* Instrument Type: VARIAN 3300 Column Type: db-624 *

* Solvent Description: He 7.00ml/min *

* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *

* Detector 0: PID Detector 1: ECD *

* Misc. Information: #1/M603;#2/M610;tcl1/m067;IS/m616 *

Starting Delay: 3.00 Ending retention time: 15.50

Area reject: 0 One sample per 0.602 sec.

Amount injected: 1.00 Dilution factor: 30.00

Internal Standard Amount: 100

Sample Weight: 5.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
	4.605		0.4193	0.0056%	53	24	2.2	1		6		7.869[illegible]
2	4.696		0.4453	0.0060%	57	14	4.1	1		6		7.[illegible]
3	5.037		0.2321	0.0031%	29	23	1.3	1		6		[illegible]
4	5.147		0.5117	0.0068%	65	22	3.0	1		6		[illegible]
5	5.398	11DCEa	~~ORTW 41.1792~~	OK 0.5508%	63	21	3.0	1	6	6	0	[illegible]
6	6.773	IS-1/ecd	100.0000	0.0000%	76240	10906	7.0	2	6	6	0	[illegible]
7	7.214	111TCEa	2.0766	0.0278%	4502	376	12.0	3	6	6	-.1296	4.6123E-04
8	7.505	CCl4	1.3748	0.0184%	16874	2667	6.3	4	6	6	0	8.1476E-05
9	8.699		3.3448	0.0447%	425	86	4.9	1		6		7.8698E-03
10	8.890	TCE/ecd	1.9490	0.0261%	359	80	4.5	1	15	15	-.0236	5.4277E-03
11	9.411	12DCPa	ORTW ~~4083.2676~~	54.6153%	3484	586	5.9	3	15	15	0	1.1718E+00
12	9.682	BrCl2methane	ORTW ~~0.1083~~	0.0014%	42	19	2.2	4	15	15	.2970	2.5738E-03
13	9.913		14.7368	0.1971%	172	29	5.9	1		15		8.5743E-02
14	10.164	c13DCPe	ORTW ~~6.8502~~	0.0916%	63	34	1.9	1	15	15	-1.658	1.0837E-01
15	11.247	IS#2/ecd	100.0000	0.0000%	6998	2663	2.6	1	15	15	0	1.4291E-02
16	11.619	PCE/ecd	3.2195	0.0431%	4346	1044	4.2	1	15	15	0	7.4073E-04
	14.378	IS3/ecd	1898.6926	25.3958%	293945	28998	10.1	1	17	15	0	6.4594E-03
18	15.060	IS3#2	1418.0038	18.9664%	57797	7035	8.2	1	17	15	0	2.4534E-02

TOTAL AMOUNT = 7476.4121

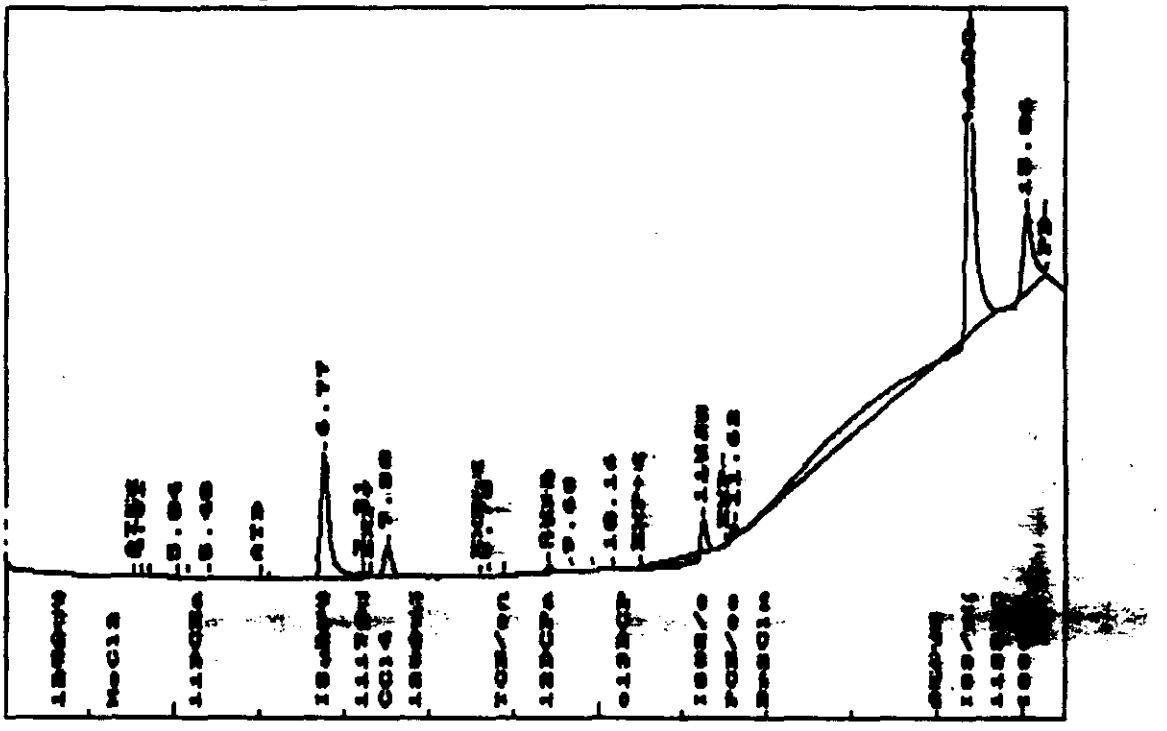
PEAKS NOT FOUN[illegible]

NAME	[illegible].TIME.	REFERENCE PEAK
11DCEe/e	[illegible]4	IS-1/ecd
MeCl2	[illegible]1	IS-1/ecd
CHCl3	[illegible]4	IS-1/ecd
12DCEa	7.85	IS-1/ecd
112TCEa	11.44	IS#2/ecd
Br2Clmethane	11.96	IS#2/ecd
CHBr3	14.01	IS3/ecd
1122PCEa	14.74	IS3/ecd

7/17/91

ORIGINAL (Red)

Areas, times, and heights stored in: E:D410H6.ATB
Data File = E:D410H6.PTB Printed on 04-10-1991 at 10:33:02
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 27191 uv High Value: 78094 uv Scale factor: 1.0



***** EXTERNAL STANDARD TABLE **** ORIGINAL (Red)

********************** 07-24-1991 11:12:42 Version 5.0 **********************

* Sample Name: method blk #2 Data File: e:c410h6 *

* Date: 04-10-1991 10:00:11 Method: CAFISH 07-24-1991 11:09:07 # 93 *

* Interface: 16 **Cycle#:** 6 Operator DEX Channel#: 0 Vial#: N.A. *

* Starting Peak **Width:** 6 Threshold: .5 Area Threshold: 50 *

* Instrument **Type: VARIAN 3300** Column Type: db-624 *

* Solvent Description: He 7.00ml/min *

* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *

* Detector 0: PID Detector 1: ECD *

* Misc. Information: #1/M603:#2/M610;tcl1/m067;IS/m616 *

Starting Delay: 3.00 Ending retention time: 15.50

Area reject: 0 One sample per 0.602 sec.

Amount injected: 1.00 Dilution factor: 1.00

Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in QArea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	6.472	IS-1/pid	55.8719	23.9754%	13790	2191	6.3	1	0	0	4.0516E-03
5	9.120	IS-2/pid	63.3042	27.1647%	5278	1113	4.7	1	0	-.1098	-1.1995E-03
7	14.027	IS-3/pid	42.1332	18.0800%	8546	1385	6.2	3	0	0	[illegible]
9	14.649	IS3#2	71.7290	30.7799%	8888	1123	7.9	2	0	0	[illegible]

TOTAL AMOUNT = 233.0384

ORIGINAL
(Red)

***** EXTERNAL STANDARD TABLE *****

********** 06-17-1991 12:38:25 Version 5.0 **********

* Sample Name: method blk #2 Data File: E:D410H6 *
* Date: 04-10-1991 10:00:11 Method: DAPISH 06-17-1991 10:11:22 # 80 *
* Interface: 16 Cycle#: 6 Operator DEK Channel#: 1 Vial#: N.A. *
* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

****

* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *
* Detector 0: PID Detector 1: ECD *
* Misc. Information: #1/M603;#2/M610;tcl1/m067;IS/m616 *

****

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in QCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	6.773	IS-1/ecd	84.4768	27.5131%	77197	10841	7.1	2	0	-.1479	[illegible]
16	11.247	IS#2/ecd	71.8557	23.4026%	19722	3030	6.5	1	0	0	[illegible]
17	14.378	IS3/ecd	53.6367	17.4689%	195417	29586	6.6	1	0	0	[illegible]
18	15.060	IS3#2	97.0726	31.6154%	93114	7887	11.8	1	0	0	[illegible]

TOTAL AMOUNT = 307.0419

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE;p.1 of 2

Sample Name: method blk #2
Disc File: E:C410H6.ATB

Printout Date/Time: 04-17-1991 09:32:22
Method File: C:\NELSON\CAPCCH.MET Updated: 04-16-1991 14:00:58 version: 124
RT Window Width File: C:\NELSON\CAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

ATB File Peak No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window
1	c12DCE/VAc	6.040	-0.070	0.098	2	-0.070	0.024	R-or M-file IS dont bracket			
2	IS-1/pid	6.472	0.000	0.121	2	0.000	0.020	R-or M-file IS dont bracket			
3	IS-2/pid	9.120	-0.010	0.094	3	0.000	0.020	R-or M-file IS dont bracket			
4	toluene	10.515	-0.010	0.105	3	0.002	0.031	3	7	0.0000	0.0225
5	pkmxylene	12.863	-0.020	0.095	7	-0.011	0.020	3	7	-0.0100	0.0200
6	oxyl/styrene	13.435	-0.010	0.095	7	-0.000	0.020	3	7	0.0000	0.0200
7	IS-3/pid	14.027	-0.010	0.088	7	0.000	0.020	R-or M-file IS dont bracket			
9	IS3#2	14.649	-0.010	0.092	7	0.000	0.026	R-or M-file IS dont bracket			

ORIGINAL (Red)

RETENTION TIME EVALUATION TABLE; p. 2 of 2

Sample Name: method blk #2
Disc File: E:C410H6.ATB

Printout Date/Time: 04-17-1991 09:32:25
Method File: C:\NELSON\CAPCCH.MET Updated: 04-16-1991 14:00:58 version: 124
RT Window Width File: C:\NELSON\CAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

Method	Compound Name	External Standard Method			Relative Retention Time Method				Retention Time Index Method				
Peak Number		Predictd Ret.Time	Ext. Std. Window Low	High	Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	High	Ref.Peaks No.1	No.2	Predictd Ret.Time	Ret.Index Window Low	High
1	11DCE/acet	3.361	3.276	3.446	7	3.361	3.285	3.437	R-or M-file IS dont bracket				
2	CS2	3.632	3.492	3.772	7	3.632	3.545	3.720	R-or M-file IS dont bracket				
3	MeCl2	4.013	3.878	4.149	7	4.013	3.928	4.099	R-or M-file IS dont bracket				
4	t12DCEe	4.465	4.338	4.592	7	4.465	4.408	4.521	R-or M-file IS dont bracket compound				
5	2-butanone	5.247	5.147	5.348	7	5.247	5.225	5.270	R-or M-file IS dont bracket compound				
6	c12DCE/VAc	6.110	6.012	6.208	7	6.110	6.086	6.134	R-or M-file IS dont bracket compound				
7	IS-1/pid	6.472	6.351	6.592	7	6.472	6.452	6.492	R-or M-file IS dont bracket compound				
8	benzene	7.565	7.461	7.669	7	7.565	7.524	7.607	7	10	7.5610	7.5410	7.5810
9	TCE	8.609	8.506	8.711	10	8.599	8.572	8.626	7	10	8.6006	8.5758	8.6253
10	IS-2/pid	9.130	9.037	9.224	10	9.120	9.100	9.140	R-or M-file IS dont bracket compound				
1	c13DCP	10.033	9.890	10.177	10	10.022	9.861	10.184	10	21	10.0233	9.8664	10.1803
.2	4me2pent	10.294	10.202	10.386	10	10.283	10.260	10.306	10	21	10.2842	10.2642	10.3042
13	toluene	10.525	10.420	10.630	10	10.513	10.482	10.545	10	21	10.5150	10.4925	10.5374
14	t13DCP	10.856	10.771	10.941	10	10.844	10.802	10.886	10	21	10.8461	10.8252	10.8670
15	PCE/p	11.3[illegible]	11.2[illegible]	11.423	10	11.315	11.269	11.361	10	21	11.3176	11.2975	11.3377
16	2-hexanone	[illegible]	[illegible]	[illegible]	10	11.496	11.437	11.554	10	21	11.4982	11.4713	11.5252
17	cl-benzene	[illegible]	[illegible]	[illegible]	21	12.523	12.492	12.554	10	21	12.5216	12.5000	12.5433
18	eth-benzene	[illegible]	[illegible]	[illegible]	21	12.693	12.673	12.713	10	21	12.6922	12.6722	12.7122
19	p&mxylene	12.8[illegible]	12.7[illegible]	12.978	21	12.874	12.854	12.894	10	21	12.8728	12.8528	12.8928
20	oxyl/styrene	13.445	13.349	13.540	21	13.435	13.415	13.455	10	21	13.4347	13.4147	13.4547
21	IS-3/pid	14.037	13.949	14.124	21	14.027	14.007	14.047	R-or M-file IS dont bracket compound				
22	IS3#2	14.659	14.567	14.751	21	14.648	14.622	14.674	R-or M-file IS dont bracket compound				

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE; p. 1 of 2

Sample Name: method blk #2
Disc File: E:D410H6.ATB

Printout Date/Time: 04-17-1991 09:37:30
Method File: C:\NELSON\DAPCCH.MET Updated: 04-16-1991 15:56:00 version: 126
RT Window Width File: C:\NELSON\DAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

ATB File No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window	
5	11DCEa	5.398	-0.010	0.098	6	-0.002	0.020	R-or M-file IS dont bracket				
6	IS-1/ecd	6.773	-0.010	0.129	6	0.000	0.020	R-or M-file IS dont bracket				
7	111TCEa	7.214	-0.020	0.093	6	-0.009	0.129	6	15	-0.0100	0.1035	
8	CC14	7.505	-0.010	0.086	6	0.001	0.114	6	15	0.0000	0.0719	
10	TCE/ecd	8.890	-0.010	0.084	15	-0.002	0.111	6	15	0.0000	0.0305	
11	12DCPa	9.411	0.191	0.095	15	0.199	0.033	6	15	0.2007	0.0200	out
12	BrCl2methane	9.682	0.261	0.108	15	0.269	0.160	6	15	0.2709	0.1075	out
14	c13DCPe	10.164	-0.181	0.103	15	-0.171	0.168	6	15	-0.1706	0.1382	out
15	IS#2/ecd	11.247	-0.010	0.118	15	0.000	0.020	R-or M-file IS dont bracket				
16	PCE/ecd	11.619	0.000	0.073	15	0.010	0.129	15	17	0.0100	0.1090	
7	IS3/ecd	14.378	-0.010	0.098	17	0.000	0.020	R-or M-file IS dont bracket				
.d	IS3#2	15.060	0.000	0.091	17	0.011	0.048	R-or M-file IS dont bracket				

ORIGINAL (Red)

RETENTION TIME EVALUATION TABLE; p. 2 of 2

Sample Name: method.blk #2
Disc File: E:D410H6.ATB

Printout Date/Time: 04-17-1991 09:37:34
Method File: C:\NELSON\DAPCCH.MET Updated: 04-16-1991 15:56:00 version: 126
RT Window Width File: C:\NELSON\DAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

Method File Peak Number	Compound Name	External Standard Method: Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Relative Retention Time Method: Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	RRT RT Window High	Retention Time Index Method: Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	Ret.Index Window Low	Ret.Index Window High
1	11DCEe/e	3.642	3.494	3.790	4	3.637	3.545	3.728	R-or M-file IS dont bracket compound				
2	MeC12	4.314	4.169	4.460	4	4.308	4.233	4.383	R-or M-file IS dont bracket compound				
3	11DCEa	5.408	5.310	5.506	4	5.400	5.380	5.420	R-or M-file IS dont bracket compound				
4	IS-1/ecd	6.783	6.653	6.912	4	6.773	6.753	6.793	R-or M-file IS dont bracket compound				
5	CHC13	6.953	6.821	7.085	4	6.943	6.917	6.969	4	13	6.9431	6.9157	6.9705
6	111TCEa	7.234	7.141	7.327	4	7.223	7.094	7.353	4	13	7.2240	7.1205	7.3276
7	CC14	7.515	7.429	7.601	4	7.504	7.390	7.618	4	13	7.5050	7.4331	7.5769
8	12DCEa	7.866	7.766	7.967	4	7.855	7.795	7.914	4	13	7.8561	7.8234	7.8888
9	TCE/ecd	8.900	8.815	8.984	13	8.892	8.781	9.003	4	13	8.8896	8.8591	8.9201
10	12DCPa	9.221	9.125	9.316	13	9.212	9.180	9.245	4	13	9.2106	9.1906	9.2306
11	BrC12methane	9.421	9.313	9.530	13	9.413	9.253	9.573	4	13	9.4113	9.3038	9.5188
12	c13DCPe	10.344	10.242	10.447	13	10.335	10.167	10.503	4	13	10.3344	10.1962	10.4726
13	IS#2/ecd	11.257	11.139	11.376	13	11.247	11.227	11.267	R-or M-file IS dont bracket compound				
14	112TCEa	11.448	11.206	11.690	13	11.438	11.320	11.556	13	18	11.4380	11.3112	11.5649
15	PCE/ecd	11.619	11.546	11.691	13	11.608	11.479	11.737	13	18	11.6086	11.4996	11.7176
16	Br2Clmethane	11.970	11.849	12.091	13	11.959	11.759	12.160	13	18	11.9598	11.8015	12.1181
17	CHBr3	14.017	13.901	14.132	18	14.007	13.931	14.083	13	18	14.0066	13.9303	14.0828
18	IS3/ecd	14.388	14.289	14.486	18	14.378	14.358	14.398	R-or M-file IS dont bracket compound				
19	1122PCEa	14.749	14.634	14.864	18	14.739	14.661	14.817	R-or M-file IS dont bracket compound				
20	IS3#2	15.060	14.969	15.151	18	15.050	15.002	15.097	R-or M-file IS dont bracket compound				

ORIGINAL
(Red)

p. 10 of 2

Areas, times, and heights stored in: E:C410H7.AT3

****** INTERNAL STANDARD TABLE ******

********** 07-15-1991 13:31:47 Version 5.0 **********

* Sample Name: cont.cal #3 Data File: E:C410H7 *

* Date: 04-10-1991 10:42:05 Method: CAPCOH 07-15-1991 13:22:49 # ~~141~~ 143 *

* Interface: 16 Cycle#: 7 Operator DEM Channel#: 0 Vial#: N.A. *

* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

* Instrument Type: VARIAN 3300 Column Type: db-624 *

* Solvent Description: He 7.00ml/min *

* Conditions: 40H4-35@6-140@10 spt37.6:1 MkupII N2 PIDr11/ECDr1 *

* Detector 0: PID Detector 1: ECD *

* Misc. Information: #1/M603;#2/M610;tcl1/m067;IS/~~m615~~ M612 *

Starting Delay: 3.00 Ending retention time: 15.50

Area reject: 0 One sample per 0.602 sec.

Amount injected: 1.00 Dilution factor: 30.00

Internal Standard Amount: 100

Sample Weight: 5.000000

PEAK #	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	3.361	11DCE/acet	238.1786	1.4267%	4577	627	7.3	2	7	7	0	[redacted]
2	3.632	CS2	2291.3062	13.7255%	61612	11821	5.2	3	7	7	0	[redacted]
3	4.013	MeCl2	2399.9985	14.3766%	859	134	6.4	4	7	7	0	[redacted]
4	4.465	t12DCEe	240.0000	1.4377%	6661	1141	5.8	1	7	7	0	[redacted]
5	5.247	2-butanone	2400.0000	14.3766%	14515	2146	6.8	1	7	7	0	[redacted]
6	6.110	c12DCE/VAc	242.0463	1.4499%	8516	1136	7.5	2	7	7	0	2.8423E-02
7	6.472	IS-1/pid	100.0000	0.0000%	24681	3979	6.2	3	7	7	0	4.0516E-03
8	6.963		14.2707	0.0855%	587	71	8.3	4		7		2.4310E-02
9	7.234		12.3462	0.0740%	508	73	6.9	2		7		2.4310E-02
10	7.565	benzene	240.0000	1.4377%	14113	2680	5.3	1	7	7	0	1.7006E-02
11	8.609	TCE	240.0000	1.4377%	14467	3164	4.6	1	12	12	0	1.6590E-02
12	9.130	IS-2/pid	100.0000	0.0000%	8337	1712	4.9	1	12	12	0	1.1995E-02
13	10.033	c13DCP	240.0000	1.4377%	704	176	4.0	1	12	12	0	3.4089E-01
14	10.294	4me2pent	2399.9985	14.3766%	12052	2180	5.5	2	12	12	0	1.9914E-01
	10.525	toluene	239.3581	1.4338%	19766	4947	4.0	3	12	12	0	1.2110E-02
	10.856	t13DCP	240.0000	1.4377%	1008	205	4.9	4	12	12	0	2.3815E-01
17	11.328	PCE/p	240.9597	1.4434%	19586	5375	3.6	2	12	12	0	1.2303E-02
18	11.508	2-hexanone	2400.0010	14.3766%	12366	1972	6.3	2	12	12	0	1.9408E-01
19	12.532	cl-benzene	212.7175	1.2742%	12254	3694	3.3	2	23	12	0	1.7359E-02
20	12.702	eth-benzene	[redacted]	1.2192%	25036	7169	3.5	2	23	12	0	8.1298E-03
21	12.883	p&mxylene	[redacted]	2.3423%	61085	15918	3.8	2	23	12	0	6.4011E-03
22	13.445	oxyl/styrene	[redacted]	2.8753%	43985	9294	4.7	2	23	12	0	1.0913E-02
23	14.037	IS-3/pid	[redacted]	3.5941%	20283	3162	6.4	3	23	12	0	2.9581E-02
24	14.358		[redacted]	0.7369%	1709	185	9.2	4		12		7.1967E-02
25	14.659	IS3#2	[redacted]	3.5941%	12390	1723	7.2	2	23	12	0	4.8424E-02
26	15.231		5.0906	0.0305%	71	20	3.6	1		12		7.1967E-02

TOTAL AMOUNT = 16693.8320

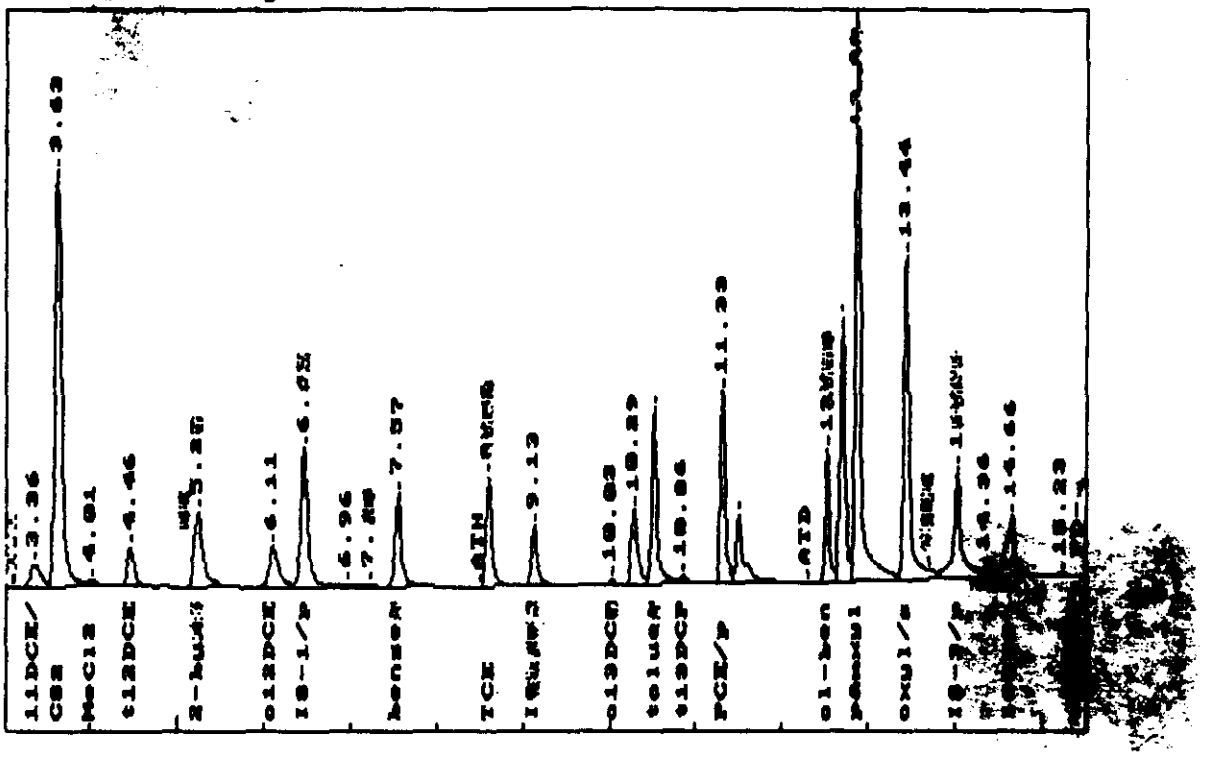
E.C 41047 p.2 of 2

ORIGINAL
(Red)

```
  START TIME=     3.261  START HEIGHT=      8552
  STOP TIME=     3.522  STOP HEIGHT=      8652
AREA =  4577
OLD AREA FOR PEAK# 1  =  5545.464  NEW AREA= 4577
OLD HEIGHT FOR PEAK # 1  =  674.6104  NEW HEIGHT= 626.5
REPRINT AREA REPORTS FOR NEW TABLES.
  START TIME=     3.532  START HEIGHT=      8656
  STOP TIME=     3.913  STOP HEIGHT=      8684
AREA =  61612
OLD AREA FOR PEAK# 2  =  64534.73  NEW AREA= 61612
OLD HEIGHT FOR PEAK # 2  =  11923.26  NEW HEIGHT= 11821.42
REPRINT AREA REPORTS FOR NEW TABLES.
  START TIME=     5.970  START HEIGHT=      8567
  STOP TIME=     6.331  STOP HEIGHT=      8642
AREA =  8516
OLD AREA FOR PEAK# 6  =  9563.805  NEW AREA= 8516
OLD HEIGHT FOR PEAK # 6  =  1172.433  NEW HEIGHT= 1136.417
REPRINT AREA REPORTS FOR NEW TABLES.
  START TIME=    10.435  START HEIGHT=      8783
  STOP TIME=    10.766  STOP HEIGHT=      8729
AREA =  19766
OLD AREA FOR PEAK# 15  =  22802.96  NEW AREA= 19766
OLD HEIGHT FOR PEAK # 15  =  5095.059  NEW HEIGHT= 4946.727
REPRINT AREA REPORTS FOR NEW TABLES.
  START TIME=    11.227  START HEIGHT=      8654
  STOP TIME=    11.438  STOP HEIGHT=      8904
AREA =  19586
OLD AREA FOR PEAK# 17  =  21246.3  NEW AREA= 19586
OLD HEIGHT FOR PEAK # 17  =  5502.082  NEW HEIGHT= 5375
REPRINT AREA REPORTS FOR NEW TABLES.
  START TIME=    12.451  START HEIGHT=      8693
  STOP TIME=    12.632  STOP HEIGHT=      8944
AREA =  12254
OLD AREA FOR PEAK# 19  =  13825.66  NEW AREA= 12254
OLD HEIGHT FOR PEAK # 19  =  3816.147  NEW HEIGHT= 3693.5
REPRINT AREA REPORTS FOR NEW TABLES.
  START TIME=    12.632  START HEIGHT=      8944
  STOP TIME=    12.803  STOP HEIGHT=      9268
AREA =  25036
OLD AREA FOR PEAK# 20  =  29520.94  NEW AREA= 25036
OLD HEIGHT FOR PEAK # 20  =  7563.315  NEW HEIGHT= 7168.764
REPRINT AREA REPORTS FOR NEW TABLES.
  START TIME=    12.803  START HEIGHT=      9268
  STOP TIME=    13[illegible]  HEIGHT=      9288
AREA =  61085
OLD AREA FOR PEA[illegible]786.76  NEW AREA= 61085
OLD HEIGHT FOR PE[illegible]16467.61  NEW HEIGHT= 15918.07
REPRINT AREA REPO[illegible] TABLES.
```

Areas, times, and heights stored in: E:C410H7.ATB
Data File = E:C410H7.PTS Printed on 04-10-1991 at 11:06:55
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 8538 uv High Value: 25192 uv Scale factor: 1.0

ORIGINAL (Red)



p. 1092

ORIGINAL (Red)

* * * * * INTERNAL STANDARD TABLE * *

********************** 07-15-1991 13:40:20 Version 5.0 *********************

* Sample Name: cont cal #3 Data File: E:D410H7

* Date: 04-10-1991 10:42:05 Method: DAPOCH 07-12-1991 11:44:24 # ~~90~~ 91 DEC 7/17/94

* Interface: 16 Cycle#: 7 Operator DEK Channel#: 1 Vial#: N.A. *

* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

****

* Instrument Type: VARIAN 3300 Column Type: db-624 *

* Solvent Description: He 7.00ml/min *

* Conditions: 40H4-5@6-140@10 spt37.5:1 Mkup33 N2 FID=11/ECD=1 *

* Detector 0: FID Detector 1: ECD *

* Misc. Information: #1/M603;#2/M610;tcl1/m0a7;IS~~/M615~~ M617 DEC 7/17/94

****

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 30.00
Internal Standard Amount: 100
Sample Weight: 5.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
	3.642	11DCEe/e	264.5802	1.2030%	4340	779	5.6	1	12	12	.3464	[illegible]
2	3.923		137.1153	0.6234%	20883	4060	5.1	2		12		[illegible]
3	4.314	MeCl2	2402.0620	10.9216%	3942	602	6.5	2	12	12	.3649	[illegible]
4	4.746		1.5929	0.0072%	243	52	4.6	1		12		[illegible]
5	4.866		0.2095	0.0010%	32	26	1.2	1		12		[illegible]
6	5.137		0.5178	0.0024%	79	32	2.5	1		12		[illegible]
7	5.408	11DCEa	3054.9321	13.8901%	4416	430	10.3	1	12	12	.4554	6.9184E-01
8	5.769		11.0281	0.0501%	1680	234	7.2	2		12		6.5658E-03
9	5.819		5.3357	0.0243%	813	232	3.5	2		12		6.5658E-03
10	5.920		9.0263	0.0410%	1375	211	6.5	2		12		6.5658E-03
11	6.080		14.4896	0.0659%	2207	145	15.2	2		12		6.5658E-03
12	6.783	IS-1/ecd	100.0000	0.0000%	91382	14919	6.1	2	12	12	0	1.0943E-03
13	6.953	CHCl3	253.6643	1.1534%	100761	14109	7.1	2	12	12	0	2.5175E-03
14	7.234	11.TCEa	247.7139	1.1263%	623696	84071	7.4	3	12	12	0	3.9717E-04
15	7.515	CCl4	24.7993	0.1128%	353069	54480	6.5	4	12	12	-.1018	7.0239E-05
16	7.866	12DCEa	1209.4076	5.4989%	10015	940	10.7	4	12	12	-.1439	1.2076E-01
	8.900	TCE/ecd	238.7292	1.0854%	173435	28871	6.0	3	22	22	.1666	1.3765E-03
18	9.221		146.9828	0.6683%	6724	884	7.6	4		22		2.1861E-02
19	9.421	12DCPa	2952.8298	13.4259%	8033	1042	7.7	2	22	22	.1225	3.6759E-01
20	9.662	BrCl2methane	48.0601	0.2185%	73148	13559	5.4	2	22	22	.1037	6.5703E-04
21	10.344	c13DCPe	[illegible]	0.8546%	8686	1769	4.9	1	22	22	0	2.1638E-02
22	11.257	IS#2/ecd	[illegible]	0.0000%	27447	4318	6.4	2	22	22	0	3.6434E-03
23	11.448	112TCEa	[illegible]	4.9418%	10467	1713	6.1	2	22	22	.2547	1.0384E-01
24	11.619	PCE/ecd	[illegible]	1.0341%	1270838	263848	4.8	3	22	22	0	1.7897E-04
25	11.970	Br2Cl[illegible]	[illegible]	0.1128%	24259	6127	4.0	4	22	22	0	1.0230E-03
26	13.354		[illegible]	19.9322%	200535	5420	37.0	4		22		2.1861E-02
27	13.595		1574.0221	7.1567%	72003	4599	15.7	2		22		2.1861E-02
28	13.696		556.1178	2.5285%	25439	4079	6.2	2		22		2.1861E-02
29	14.017	CHBr3	1623.6996	7.3826%	134076	9796	13.7	2	30	22	0	1.2110E-02
30	14.388	IS3/ecd	561.2625	2.5519%	364334	50730	7.2	3	30	22	0	1.5405E-03
31	14.749	1122PCEa	197.5906	0.8984%	20562	3390	6.1	4	30	22	0	9.6095E-03
32	15.060	IS3#2	546.9500	2.4869%	95922	12199	7.9	2	30	22	0	5.7020E-03

TOTAL AMOUNT = 21993.6152

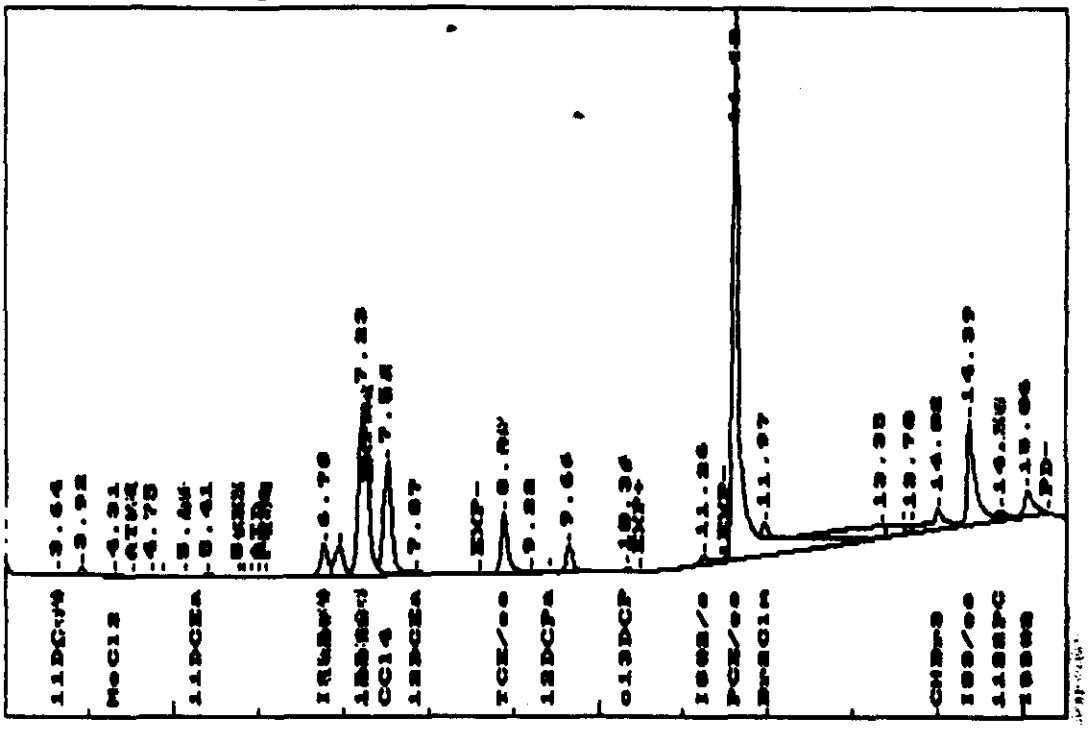
E: U410H7
p. 2 of 2

ORIGINAL
(Red)

```
  START TIME=     3.552  START HEIGHT=     27511
  STOP TIME=     3.742  STOP HEIGHT=     27495
AREA =  4340
OLD AREA FOR PEAK# 1  =  5271.714  NEW AREA= 4340
OLD HEIGHT FOR PEAK # 1  =  837.4297  NEW HEIGHT= 779
REPRINT AREA REPORTS FOR NEW TABLES
  START TIME=    11.518  START HEIGHT=     36148
  STOP TIME=    11.890  STOP HEIGHT=     46621
AREA =  1270838
OLD AREA FOR PEAK# 24  =  1842460  NEW AREA= 1270838
OLD HEIGHT FOR PEAK # 24  =  268013.2  NEW HEIGHT= 263848
REPRINT AREA REPORTS FOR NEW TABLES.
  START TIME=     8.779  START HEIGHT=     27944
  STOP TIME=     9.110  STOP HEIGHT=     27817
AREA =  173435
OLD AREA FOR PEAK# 17  =  175092.2  NEW AREA= 173435
OLD HEIGHT FOR PEAK # 17  =  29326.83  NEW HEIGHT= 28871.03
REPRINT AREA REPORTS FOR NEW TABLES.
Areas, times, and heights stored in: E:D410H7.ATB
```

ORIGINAL (Red)

Areas, times, and heights stored in: E:D410H7.ATB
Data File = E:D410H7.PTS Printed on 04-10-1991 at 11:09:16
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 26703 uv High Value: 302976 uv Scale factor: 1.0



ORIGINAL
(Red)

EXTERNAL STANDARD TABLE

07-24-1991 11:13:20 Version 5.0

Sample Name: cont cal #3 Data File: e:c410h7

Date: 04-10-1991 10:42:05 Method: CAPISH 07-24-1991 11:09:07 # 93

Interface: 16 **Cycle#:** 7 Operator DEK Channel#: 0 Vial#: N.A.

Starting Peak **Width:** 6 Threshold: .5 Area Threshold: 50

Instrument Type: VARIAN 3300 Column Type: db-624

Solvent Description: He 7.00ml/min

Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 FIDr11/ECDr1

Detector 0: FID Detector 1: ECD

Misc. Information: #1/M603;#2/M610;tc11/m067;IS/~~m616~~ M617 pk 4/10/91

Starting Delay: 3.00 Ending retention time: 15.50

Area reject: 0 One sample per 0.602 sec.

Amount injected: 1.00 Dilution factor: 1.00

Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in QCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	6.472	IS-1/pid	100.0000	25.0000%	24681	3979	6.2 3	0	0	4.0516E-03
12	9.130	IS-2/pid	100.0000	25.0000%	8337	1712	4.9 1	0	0	1.1995E-02
23	14.037	IS-3/pid	100.0000	25.0000%	20283	3162	6.4 3	0	0	4.9301E-03
25	14.659	IS3#2	100.0000	25.0000%	12390	1723	7.2 2	0	0	8.07[illegible]E-03

TOTAL AMOUNT = 399.9999

ORIGIN:

***** EXTERNAL STANDARD TABLE *****

********** 06-17-1991 11:58:20 Version 5.0 **********

* Sample Name: cont cal #3 Data File: E:D410H7 *
* Date: 04-10-1991 10:42:05 Method: DAPISH 06-17-1991 10:11:22 # 80 *
* Interface: 16 Cycle#: 7 Operator DEK Channel#: 1 Vial#: N.A. *
* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

****

* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *
* Detector 0: PID Detector 1: ECD *
* Misc. Information: #1/M603;#2/M610;tc11/m067;IS/~~m616~~ M617 dk 4/10/91

****

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in QCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
1	6.783	IS-1/ecd	100.0000	25.0000%	91382	14919	6.1	2	0	0	1.094[illegible]E-03
22	11.257	IS#2/ecd	100.0000	25.0000%	27447	4318	6.4	2	0	0	[illegible]
30	14.388	IS3/ecd	100.0000	25.0000%	364334	50730	7.2	3	0	0	[illegible]
32	15.060	IS3#2	100.0000	25.0000%	95922	12199	7.9	2	0	0	[illegible]

TOTAL AMOUNT = 400.0000

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE;p.1 of :

Sample Name: cont cal #3
Disc File: C:\NELSON\DATA\c410h7.ATB

Printout Date/Time: 04-10-1991 11:48:04
Method File: C:\NELSON\capcch.MET Updated: 04-10-1991 11:20:31 version: 102
RT Window Width File: C:\NELSON\capcch.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

ATB File No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window
1	11DCE/acet	3.361	-0.000	0.085	7	-0.000	0.076	R-or M-file IS dont bracket			
2	CS2	3.632	-0.000	0.140	7	-0.000	0.087	R-or M-file IS dont bracket			
3	MeCl2	4.013	0.000	0.135	7	0.000	0.086	R-or M-file IS dont bracket			
4	t12DCEe	4.465	0.000	0.127	7	0.000	0.057	R-or M-file IS dont bracket			
5	2-butanone	5.247	0.000	0.101	7	0.000	0.022	R-or M-file IS dont bracket			
6	c12DCE/VAc	6.110	0.000	0.098	7	0.000	0.024	R-or M-file IS dont bracket			
7	IS-1/pid	6.472	0.000	0.121	7	0.000	0.020	R-or M-file IS dont bracket			
10	benzene	7.565	0.000	0.104	7	0.000	0.041	7	12	0.0000	0.0200
11	TCE	8.609	0.000	0.103	12	-0.000	0.027	7	12	-0.0000	0.0248
12	IS-2/pid	9.130	0.000	0.094	12	0.000	0.020	R-or M-file IS dont bracket			
13	c13DCP	10.033	0.000	0.144	12	0.000	0.161	12	23	0.0000	0.1570
14	4me2pent	10.294	0.000	0.092	12	-0.000	0.023	12	23	-0.0000	0.0200
15	toluene	10.525	0.000	0.105	12	-0.000	0.031	12	23	-0.0000	0.0225
16	t13DCP	10.856	0.000	0.085	12	-0.000	0.042	12	23	-0.0000	0.0209
17	PCE/p	11.32[illegible]	0.000	0.095	12	-0.000	0.046	12	23	-0.0000	0.0201
18	2-hexanone	[illegible]	[illegible]	[illegible].079	12	-0.000	0.058	12	23	0.0000	0.0270
19	cl-benzene	[illegible]	[illegible]	[illegible].103	23	0.000	0.031	12	23	0.0000	0.0217
20	eth-benzene	[illegible]	[illegible]	[illegible].095	23	0.000	0.020	12	23	0.0000	0.0200
21	p&mxylene	12.[illegible]	-0.000	0.095	23	-0.000	0.020	12	23	-0.0000	0.0200
22	oxyl/styrene	13.445	0.000	0.095	23	0.000	0.020	12	23	0.0000	0.0200
23	IS-3/pid	14.037	0.000	0.088	23	0.000	0.020	R-or M-file IS dont bracket			
25	IS3#2	14.659	0.000	0.092	23	0.000	0.026	R-or M-file IS dont bracket			

RETENTION TIME EVALUATION TABLE; p. 2 of [illegible]

Sample Name: cont cal #3
Disc File: C:\NELSON\DATA\c410h7.ATB

Printout Date/Time: 04-10-1991 11:48:11
Method File: C:\NELSON\capcch.MET Updated: 04-10-1991 11:20:31 version: 102
RT Window Width File: C:\NELSON\capcch.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

Method Peak Number	Compound Name	External Standard Method: Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Relative Retention Time Method: Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	RRT RT Window High	Retention Time Index Method: Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	Ret.Index Window Low	Ret.Index Window High
1	11DCE/acet	3.361	3.276	3.446	7	3.361	3.285	3.437	R-or M-file IS dont bracket compound				
2	CS2	3.632	3.492	3.772	7	3.632	3.545	3.720	R-or M-file IS dont bracket compound				
3	MeCl2	4.013	3.878	4.149	7	4.013	3.928	4.099	R-or M-file IS dont bracket compound				
4	t12DCEe	4.465	4.338	4.592	7	4.465	4.408	4.521	R-or M-file IS dont bracket compound				
5	2-butanone	5.247	5.147	5.348	7	5.247	5.225	5.270	R-or M-file IS dont bracket compound				
6	c12DCE/VAc	6.110	6.012	6.208	7	6.110	6.086	6.134	R-or M-file IS dont bracket compound				
7	IS-1/pid	6.472	6.351	6.592	7	6.472	6.452	6.492	R-or M-file IS dont bracket compound				
8	benzene	7.565	7.461	7.669	7	7.565	7.524	7.607	7	10	7.5652	7.5452	7.5852
9	TCE	8.609	8.506	8.711	10	8.609	8.582	8.636	7	10	8.4086	8.5838	8.6335
10	IS-2/pid	9.130	9.037	9.224	10	9.130	9.110	9.150	R-or M-file IS dont bracket compound				
11	c13DCP	10.033	9.890	10.177	10	10.033	9.872	10.195	10	21	10.0334	9.8764	10.1903
12	4me2pent	10.294	10.202	10.386	10	10.294	10.271	10.317	10	21	10.2942	10.2742	10.3142
13	toluene	10.525	10.420	10.630	10	10.525	10.494	10.556	10	21	10.5250	10.5025	10.5475
14	t13DCP	10.856	10.771	10.941	10	10.856	10.814	10.898	10	21	10.8561	10.8352	10.8770
15	PCE/p	[illegible]	[illegible]	[illegible]423	10	11.328	11.282	11.374	10	21	11.3277	11.3076	11.3478
16	2-hexanone	[illegible]	[illegible]	11.587	10	11.508	11.450	11.566	10	21	11.5083	11.4813	11.5352
17	cl-benzene	[illegible]	[illegible]	[illegible]34	21	12.532	12.501	12.563	10	21	12.5317	12.5100	12.5533
18	eth-benzene	[illegible]	[illegible]	[illegible]798	21	12.702	12.682	12.722	10	21	12.7022	12.6822	12.7222
19	p&mxylene	12.883	12.787	12.978	21	12.883	12.863	12.903	10	21	12.8828	12.8628	12.9028
20	oxyl/styrene	13.445	13.349	13.540	21	13.445	13.425	13.465	10	21	13.4447	13.4247	13.4647
21	IS-3/pid	14.037	13.949	14.124	21	14.037	14.017	14.057	R-or M-file IS dont bracket compound				
22	IS3#2	14.659	14.567	14.751	21	14.659	14.633	14.685	R-or M-file IS dont bracket compound				

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE; p. 1 of [illegible]

Sample Name: cont cal #3
Disc File: C:\NELSON\DATA\d410h7.ATB

Printout Date/Time: 04-10-1991 11:55:45
Method File: C:\NELSON\dapcch.MET Updated: 04-10-1991 11:16:50 version: 94
RT Window Width File: C:\NELSON\dapcch.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

ATB File No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window
1	11DCEe/e	3.642	0.000	0.148	12	-0.000	0.092	R-or M-file IS dont bracket			
3	MeC12	4.314	0.000	0.145	12	-0.000	0.075	R-or M-file IS dont bracket			
7	11DCEa	5.408	0.000	0.098	12	-0.000	0.020	R-or M-file IS dont bracket			
12	IS-1/ecd	6.783	0.000	0.129	12	-0.000	0.020	R-or M-file IS dont bracket			
13	CHC13	6.953	0.000	0.132	12	-0.000	0.026	12	22	-0.0000	0.0274
14	111TCEa	7.234	0.000	0.093	12	-0.000	0.129	12	22	0.0000	0.1035
15	CC14	7.515	0.000	0.086	12	-0.000	0.114	12	22	-0.0000	0.0719
16	12DCEa	7.866	0.000	0.101	12	-0.000	0.060	12	22	-0.0000	0.0327
17	TCE/ecd	8.900	0.000	0.084	22	0.000	0.111	12	22	0.0000	0.0305
19	12DCPa	9.421	0.000	0.095	22	0.000	0.033	12	22	0.0000	0.0200
20	BrC12methane	9.662	0.000	0.108	22	0.000	0.160	12	22	0.0000	0.1075
21	c13DCPe	10.344	0.000	0.103	22	0.000	0.168	12	22	0.0000	0.1382
22	IS#2/ecd	11.257	0.000	0.118	22	0.000	0.020	R-or M-file IS dont bracket			
23	112TCEa	11.44[illegible]	-0.000	0.242	22	-0.000	0.118	22	30	-0.0000	0.1268
24	PCE/ecd	[illegible]	[illegible]	[illegible]073	22	0.000	0.129	22	30	0.0000	0.1090
25	Br2Clmethane	[illegible]	[illegible]	[illegible]121	22	0.000	0.201	22	30	0.0000	0.1583
29	CHBr3	[illegible]	[illegible]	[illegible]115	30	0.000	0.076	22	30	0.0000	0.0762
30	IS3/ecd	[illegible]	[illegible]	[illegible]098	30	0.000	0.020	R-or M-file IS dont bracket			
31	1122PCEa	14.749	0.000	0.115	30	0.000	0.078	R-or M-file IS dont bracket			
32	IS3#2	15.060	0.000	0.091	30	0.000	0.048	R-or M-file IS dont bracket			

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE; p. 2 of 2

Sample Name: cont cal #3
Disc File: C:\NELSON\DATA\d410h7.ATB

Printout Date/Time: 04-10-1991 11:55:51
Method File: C:\NELSON\dapcch.MET Updated: 04-10-1991 11:16:50 version: 94
RT Window Width File: C:\NELSON\dapcch.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

Method File Peak nr	Compound Name	External Standard Method: Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Relative Retention Time Method: Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	RRT RT Window High	Retention Time Index Method: Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	Ret.Index Window Low	Ret.Index Window High
1	11DCEe/e	3.642	3.494	3.790	4	3.642	3.550	3.734	R-or M-file IS dont bracket compound				
2	MeC12	4.314	4.169	4.460	4	4.314	4.239	4.390	R-or M-file IS dont bracket compound				
3	11DCEa	5.408	5.310	5.506	4	5.408	5.388	5.428	R-or M-file IS dont bracket compound				
4	IS-1/ecd	6.783	6.653	6.912	4	6.783	6.763	6.803	R-or M-file IS dont bracket compound				
5	CHC13	6.953	6.821	7.085	4	6.953	6.927	6.979	4	13	6.9531	6.9257	6.9805
6	111TCEa	7.234	7.141	7.327	4	7.234	7.105	7.363	4	13	7.2341	7.1305	7.3376
7	CC14	7.515	7.429	7.601	4	7.515	7.401	7.629	4	13	7.5150	7.4431	7.5869
8	12DCEa	7.866	7.766	7.967	4	7.866	7.806	7.926	4	13	7.8662	7.8335	7.8989
9	TCE/ecd	8.900	8.815	8.984	13	8.900	8.789	9.011	4	13	8.8996	8.8691	8.9301
10	12DCPa	9.421	9.326	9.517	13	9.421	9.389	9.454	4	13	9.4213	9.4013	9.4413
11	BrC12methane	9.662	9.554	9.770	13	9.662	9.502	9.822	4	13	9.6621	9.5546	9.7696
2	c13DCPe	10.344	10.242	10.447	13	10.344	10.176	10.512	4	13	10.3444	10.2062	10.4826
13	IS82/ecd	11.257	11.139	11.376	13	11.257	11.237	11.277	R-or M-file IS dont bracket compound				
14	112TCEa	11.448	11.206	11.690	13	11.448	11.330	11.566	13	18	11.4481	11.3212	11.5749
15	PCE/ecd	11.619	11.546	11.691	13	11.619	11.490	11.747	13	18	11.6186	11.5096	11.7276
16	Br2Clmethane	11.970	11.849	12.091	13	11.970	11.769	12.170	13	18	11.9698	11.8115	12.1281
17	CHBr3	14.017	13.901	14.132	18	14.017	13.940	14.093	13	18	14.0166	13.9404	14.0928
18	ISX/ecd	14.388	14.289	14.486	18	14.388	14.368	14.408	R-or M-file IS dont bracket compound				
19	1122PCEa	14.749	14.634	14.864	18	14.749	14.671	14.827	R-or M-file IS dont bracket compound				
20	IS382	15.060	14.969	15.151	18	15.060	15.012	15.108	R-or M-file IS dont bracket compound				

INTERNAL STANDARD TABLE

```
******************** 07-18-1991 10:56:22 Version 5.0 **********************
* Sample Name: meth blk #3                          Data File: e:c410h8      *
* Date: 04-10-1991 11:13:07 Method: DAPCCH 07-15-1991 13:33:18  #  142      *
* Interface: 16  Cycle#:  8    Operator DEK Channel#: 0    Vial#: N.A.      *
* Starting Peak Width:  6   Threshold: .5  Area Threshold: 50               *
*************************************************************************
* Instrument Type: VARIAN 3300          Column Type: db-624                 *
*              Solvent Description: He 7.00ml/min                           *
* Conditions: 10H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1             *
*            Detector 0: PID                  Detector 1: ECD               *
* Misc. Information: #1/M603;#2/M610;tcl1/m067;IS/~~m616~~ m617 DE 7/17/91   *
*************************************************************************
Starting Delay:    3.00                    Ending retention time:    15.50
Area reject:        0                      One sample per    0.602 sec.
Amount injected:        1.00               Dilution factor:        30.00
Internal Standard Amount:  100
Sample Weight:          5.000000
```

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	HEIGHT BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	6.090	c12DCE/VAc	ORTW ~~22.2919~~	1.9244%	597	103	5.8	1	2	2	-.9427	3.7367E-02
2	6.512	IS-1/pid	100.0000	0.0000%	18625	3128	6.0	1	2	2	0	[illegible]
3	9.140	IS-2/pid	100.0000	0.0000%	6495	1336	4.9	1	3	3	0	[illegible]
4	10.525	toluene	2.3175	0.2001%	149	39	3.8	1	3	3	-.1097	[illegible]
5	12.873	p&mxylene	1.7731	0.1531%	176	48	3.6	1	7	3	0	[illegible]
6	13.435	oxyl/styrene	1.1216	0.0968%	80	24	3.3	1	7	3	0	[illegible]
7	14.037	IS-3/pid	573.0668	49.4701%	15092	1788	8.4	3	7	3	0	3.7971E-02
8	14.358		117.9159	10.1791%	1276	140	9.1	4		3		9.2379E-02
9	14.659	IS3#2	424.8528	36.6755%	6835	1044	6.5	2	7	3	0	6.2158E-02
10	15.341		15.0709	1.3010%	163	16	10.4	1		3		9.2379E-02

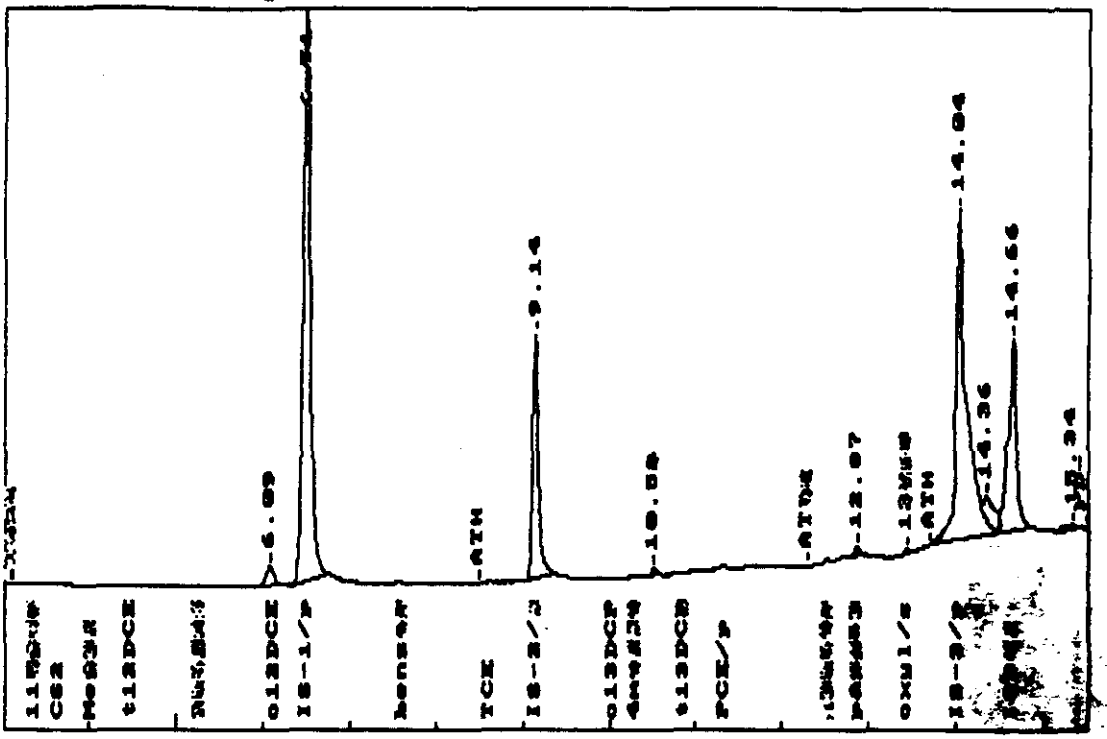
TOTAL AMOUNT = 1158.4105

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
1CE/acet	3.38	IS-1/pid
Cl2	3.65	IS-1/pid
MeCl2	4.04	IS-1/pid
t12DCEe	4.49	IS-1/pid
2-butanone	5.28	IS-1/pid
benzene	[illegible]	IS-1/pid
TCE	[illegible]	IS-2/pid
c13DCP	[illegible]	IS-2/pid
4me2pent	[illegible]	IS-2/pid
t13DCP	[illegible]	IS-2/pid
PCE/p	[illegible]	IS-2/pid
2-hexanone	11.52	IS-2/pid
cl-benzene	12.53	IS-3/pid
eth-benzene	12.70	IS-3/pid

ORIGINAL
(Red)

Areas, times, and heights stored in: E:C410H8.ATB
Data File = E:C410H8.PTS Printed on 04-10-1991 at 11:31:27
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 8523 uv High Value: 11679 uv Scale factor: 1.0



ORIGINAL (Red)

***** INTERNAL STANDARD TABLE *****

********** 07-18-1991 10:57:31 Version 5.0 **********

* Sample Name: meth blk #3 Data File: e:d410h8 *
* Date: 04-10-1991 11:13:07 Method: DAPCCH 07-15-1991 13:41:55 # 91 *
* Interface: 16 Cycle#: 8 Operator DEK Channel#: 1 Vial#: N.A. *
* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40H4-55@6-140@10 spt37.6:1 MkupS3 N2 PIDr11/ECDr1 *
* Detector 0: PID Detector 1: ECD *
* Misc. Information: #1/M603;#2/M610;tc11/m067;IS/~~meth~~ M617 RLC 7/17/91 *

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 30.00
Internal Standard Amount: 100
Sample Weight: 5.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppt	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
	3.040		8.8822	0.1573%	1385	431	3.2	1		10		6.4122E-03
2	4.545		0.2239	0.0040%	35	21	1.7	1		10		[illegible]
3	4.696		0.1332	0.0024%	21	21	1.0	1		10		[illegible]
4	5.007		0.1737	0.0031%	27	15	1.8	2		10		[illegible]
5	5.057		0.4053	0.0072%	63	27	2.3	2		10		[illegible]
6	5.288	11DCEa	ORTW ~~30.6764~~	0.5432%	58	27	2.1	1	10	10	-2.514	[illegible]
7	5.659		1.7805	0.0315%	278	28	9.9	2		10		6.4122E-03
8	6.070		0.2088	0.0037%	33	25	1.3	2		10		6.4122E-03
9	6.221		1.5016	0.0266%	234	35	6.7	1		10		6.4122E-03
10	6.803	IS-1/ecd	100.0000	0.0000%	93571	13019	7.2	2	10	10	0	1.0687E-03
11	7.244	111TCEa	1.9628	0.0348%	5223	423	12.4	3	10	10	-.1567	3.7580E-04
12	7.535	CO14	1.3739	0.0243%	20696	3254	6.4	4	10	10	0	6.6386E-05
13	8.739		1.9803	0.0351%	309	56	5.5	1		10		6.4122E-03
14	8.920	TCE/ecd	0.9537	0.0169%	283	72	3.9	1	18	18	.2254	3.3705E-03
15	9.140		2.8047	0.0497%	53	28	1.9	1		18		5.3246E-02
[illegible]	9.431	12DCPa	ORTW ~~2811.1343~~	49.7749%	3863	683	5.7	1	18	18	.1064	7.2770E-01
	10.485	c13DCPe	3.6462	0.0646%	54	22	2.4	1	18	18	1.357	6.7298E-02
18	11.257	IS#2/ecd	100.0000	0.0000%	11269	3217	3.5	1	18	18	0	8.8743E-03
19	11.619	PCE/ecd	1.9436	0.0344%	4225	1068	4.0	1	18	18	0	4.5998E-04
20	14.378	IS3/ecd	1763.7328	31.2293%	439703	35187	12.5	2	20	18	0	4.0112E-03
21	15.050	IS3#2	[illegible]	17.9573%	66566	8119	8.2	2	20	18	0	1.5235E-02

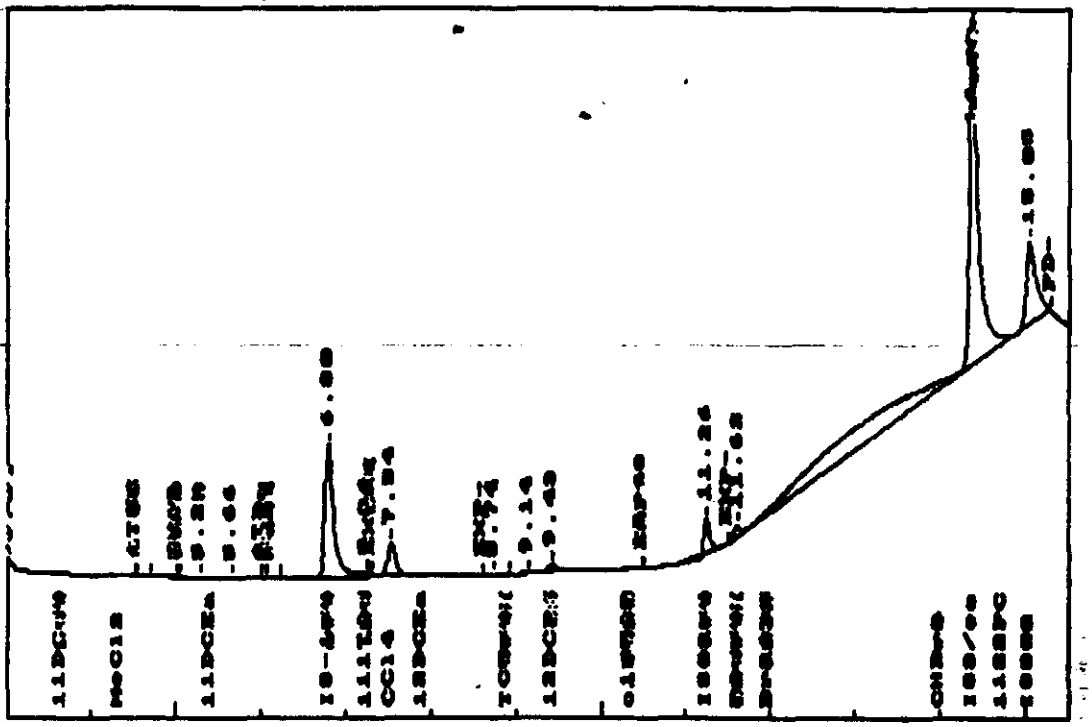
TOTAL AMOUNT [illegible]

PEAKS NOT FOUND [illegible]

NAME	[illegible]T.TIME.	REFERENCE PEAK
11DCEe/e	3.65	IS-1/ecd
MeCl2	4.33	IS-1/ecd
CHCl3	6.97	IS-1/ecd
12DCEa	7.89	IS-1/ecd
BrCl2methane	9.66	IS#2/ecd
112TCEa	11.45	IS#2/ecd
Br2Clmethane	11.97	IS#2/ecd
CHBr3	14.01	IS3/ecd
1122PCEa	14.74	IS3/ecd

Areas, times, and heights stored in: E:D410H8.ATB
Data File: E:D410H8.PTS Printed on 04-10-1991 at 11:33:40
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 27026 uv High Value: 83137 uv Scale factor: 1.0

ORIGINAL (Red)



ORIGINAL (Red)

***** EXTERNAL STANDARD TABLE *****
******************** 07-24-1991 11:14:13 Version 5.0 ********************
* Sample Name: meth blk #3 Data File: e:c410h8 *
* Date: 04-10-1991 11:13:07 Method: CAPISH 07-24-1991 11:09:07 # 93 *
* Interface: 16 Cycle#: 8 Operator DEK Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *
****
* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40@4-35@6-140@10 spt37.6:1 Mkup33 N2 FIDr11/ECDr1 *
* Detector 0: FID Detector 1: ECD *
* Misc. Information: #1/M603;#2/M610;tc11/m067;IS/~~m610~~ M617 DEK 4/10/91
****

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in QCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	6.512	IS-1/pid	75.4601	26.6704%	18625	3128	6.0	1	0	.6201	4.0516E-03
	9.140	IS-2/pid	77.9045	27.5344%	6495	1336	4.9	1	0	.1098	1.1995E-02
7	14.037	IS-3/pid	74.4075	26.2984%	15092	1788	8.4	3	0	0	4.9301E-03
9	14.659	IS3#2	55.1633	19.4968%	6835	1044	6.5	2	0	0	8.0707E-03

TOTAL AMOUNT = 282.9354

ORIGINAL (Red)

Areas, times, and heights stored in: e:d410h8.ATB

***** EXTERNAL STANDARD TABLE *****

********** 06-17-1991 17:08:58 Version 5.0 **********

* Sample Name: **meth blk #3** Data File: e:d410h8 *
* Date: 04-10-1991 11:13:07 Method: DAPISH 06-17-1991 13:57:57 # 81 *
* Interface: 16 **Cycle#:** 8 Operator DEK Channel#: 1 Vial#: N.A. *
* Starting Peak **Width:** 6 Threshold: .5 Area Threshold: 50 *

****

* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *
* Detector 0: PID Detector 1: ECD *
* Misc. Information: #1/M603;#2/M610;tc11/m067;IS/~~m616~~ M617 Dek 4/10/91

****

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.000000

PEAK #	RET TIME	PEAK NAME	CONCENTRATION in QCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	HEIGHT BL	REF PEAK	% DELTA RET TIME	CONC/AREA
10	6.803	IS-1/ecd	102.3950	32.6429%	93571	13019	7.2	2	0	.2958	1.0[illegible]E-03
18	11.257	IS#2/ecd	76.7670	24.4729%	21070	3399	6.2	1	0	0	3.6[illegible]E-03
20	14.378	IS3/ecd	65.1698	20.7758%	237436	34999	6.8	2	0	0	2.7[illegible]E-04
21	15.050	IS3#2	69.3501	22.1084%	66522	8176	8.1	2	0	0	1.0[illegible]E-03

TOTAL AMOUNT = 313.6820

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE; p. 1 of 2

Sample Name: meth blk #3
Disc File: E:C410H8.ATB

Printout Date/Time: 04-17-1991 08:57:28
Method File: C:\NELSON\CAPCCH.MET Updated: 04-16-1991 14:00:58 version: 124
RT Window Width File: C:\NELSON\CAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

ATB File Pe No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window
1	c12DCE/VAc	6.090	-0.020	0.098	2	-0.058	0.024	R-or M-file IS dont bracket			
2	IS-1/pid	6.512	0.040	0.121	2	0.000	0.020	R-or M-file IS dont bracket			
3	IS-2/pid	9.140	0.010	0.094	3	0.000	0.020	R-or M-file IS dont bracket			
4	toluene	10.525	0.000	0.105	3	-0.012	0.031	3	7	-0.0072	0.0224
5	p&mxylene	12.873	-0.010	0.095	7	-0.010	0.020	3	7	-0.0124	0.0200
6	oxyl/styrene	13.435	-0.010	0.095	7	-0.010	0.020	3	7	-0.0112	0.0200
7	IS-3/pid	14.037	0.000	0.088	7	0.000	0.020	R-or M-file IS dont bracket			
9	IS3#2	14.659	0.000	0.092	7	0.000	0.020	R-or M-file IS dont bracket			

out

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE; p. 2 of 2

Sample Name: meth blk #3
Disc File: E:C410H8.ATB

Printout Date/Time: 04-17-1991 08:57:31
Method File: C:\NELSON\CAPCCH.MET Updated: 04-16-1991 14:00:58 version: 124
RT Window Width File: C:\NELSON\CAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

Method File Peak Number	Compound Name	External Standard Method: Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Relative Retention Time Method: Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	RRT RT Window High	Retention Time Index Method: Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	Ret.Index Window Low	Ret.Index Window High
1	11DCE/acet	3.361	3.276	3.446	7	3.382	3.306	3.458	R-or M-file IS dont bracket [illegible]				
2	CS2	3.632	3.492	3.772	7	3.655	3.567	3.742	R-or M-file IS dont bracket [illegible]				
3	MeCl2	4.013	3.878	4.149	7	4.038	3.952	4.124	R-or M-file IS dont bracket [illegible]				
4	t12DCEe	4.465	4.338	4.592	7	4.493	4.436	4.549	R-or M-file IS dont bracket compound				
5	2-butanone	5.247	5.147	5.348	7	5.280	5.258	5.302	R-or M-file IS dont bracket compound				
6	c12DCE/VAc	6.110	6.012	6.208	7	6.148	6.124	6.172	R-or M-file IS dont bracket compound				
7	IS-1/pid	6.472	6.351	6.592	7	6.512	6.492	6.532	R-or M-file IS dont bracket compound				
8	benzene	7.565	7.461	7.669	7	7.612	7.571	7.653	7	10	7.5929	7.5729	7.6129
9	TCE	8.609	8.506	8.711	10	8.618	8.591	8.645	7	10	8.6246	8.5999	8.6493
10	IS-2/pid	9.130	9.037	9.224	10	9.140	9.120	9.160	R-or M-file IS dont bracket compound				
[illegible]	c13DCP	10.033	9.890	10.177	10	10.044	9.883	10.206	10	21	10.0416	9.8848	10.1983
[illegible]	4me2pent	10.294	10.202	10.386	10	10.306	10.283	10.328	10	21	10.3019	10.2819	10.3219
13	toluene	10.525	10.420	10.630	10	10.537	10.505	10.568	10	21	10.5322	10.5097	10.5546
14	t13DCP	10.856	10.771	10.941	10	10.868	10.826	10.910	10	21	10.8626	10.8417	10.8835
15	PCE/p	11.3[illegible]	11.232	11.4[illegible]	10	11.340	11.294	11.386	10	21	11.3332	11.3131	11.3533
16	2-hexanone	[illegible]	[illegible]	[illegible]	10	11.521	11.463	11.579	10	21	11.5134	11.4865	11.5404
17	cl-benzene	[illegible]	[illegible]	[illegible]	21	12.532	12.501	12.563	10	21	12.5347	12.5131	12.5564
18	eth-benzene	[illegible]	[illegible]	[illegible]	21	12.702	12.682	12.722	10	21	12.7050	12.6850	12.7250
19	p&mxylene	12.8[illegible]	12.7[illegible]	12.978	21	12.883	12.863	12.903	10	21	12.8852	12.8652	12.9052
20	oxyl/styrene	13.445	13.349	13.540	21	13.445	13.425	13.465	10	21	13.4459	13.4259	13.4659
21	IS-3/pid	14.037	13.949	14.124	21	14.037	14.017	14.057	R-or M-file IS dont bracket compound				
22	IS3#2	14.659	14.567	14.751	21	14.659	14.633	14.685	R-or M-file IS dont bracket compound				

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE; p. 1 of 2

Sample Name: meth blk #3
Disc File: E:D410H8.ATB

Printout Date/Time: 04-17-1991 09:00:19
Method File: C:\NELSON\DAPCCH.MET Updated: 04-16-1991 15:56:00 version: 126
RT Window Width File: C:\NELSON\DAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

ATB File No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window	
6	11DCEa	5.288	-0.120	0.098	10	-0.136	0.020	R-or M-file IS dont bracket				out
10	IS-1/ecd	6.803	0.020	0.129	10	0.000	0.020	R-or M-file IS dont bracket				
11	111TCEa	7.244	0.010	0.093	10	-0.011	0.129	10	18	-0.0080	0.1033	
12	CCl4	7.535	0.020	0.086	10	-0.002	0.115	10	18	0.0033	0.0718	
14	TCE/ecd	8.920	0.020	0.084	18	0.020	0.111	10	18	0.0095	0.0304	
16	12DCPa	9.431	0.211	0.095	18	0.211	0.033	10	18	0.2016	0.0200	out
17	c13DCPe	10.485	0.140	0.103	18	0.140	0.168	10	18	0.1364	0.1379	
18	IS#2/ecd	11.257	0.000	0.118	18	0.000	0.020	R-or M-file IS dont bracket				
19	PCE/ecd	11.619	0.000	0.073	18	0.000	0.129	18	20	0.0012	0.1088	
20	IS3/ecd	14.378	-0.010	0.098	20	0.000	0.020	R-or M-file IS dont bracket				
[illegible]	IS3#2	15.050	-0.010	0.091	20	0.000	0.048	R-or M-file IS dont bracket				

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE; p. 2 of 2

Sample Name: meth blk #3
Disc File: E:D410H8.ATB

Printout Date/Time: 04-17-1991 09:00:23
Method File: C:\NELSON\DAPCCH.MET Updated: 04-16-1991 15:56:00 version: 126
RT Window Width File: C:\NELSON\DAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

Method File Peak #	Compound Name	External Standard Method: Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Relative Retention Time Method: Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	RRT RT Window High	Retention Time Index Method: Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	Ret.Index Window Low	Ret.Index Window High
1	11DCEe/e	3.642	3.494	3.790	4	3.653	3.561	3.745	R-or M-file IS dont bracket compound				
2	MeCl2	4.314	4.169	4.460	4	4.327	4.252	4.403	R-or M-file IS dont bracket compound				
3	11DCEa	5.408	5.310	5.506	4	5.424	5.404	5.444	R-or M-file IS dont bracket compound				
4	IS-1/ecd	6.783	6.653	6.912	4	6.803	6.783	6.823	R-or M-file IS dont bracket compound				
5	CHCl3	6.953	6.821	7.085	4	6.974	6.948	6.999	4	13	6.9724	6.9451	6.9998
6	111TCEa	7.234	7.141	7.327	4	7.255	7.126	7.385	4	13	7.2521	7.1488	7.3554
7	CCl4	7.515	7.429	7.601	4	7.537	7.423	7.652	4	13	7.5318	7.4600	7.6035
8	12DCEa	7.866	7.766	7.967	4	7.889	7.830	7.949	4	13	7.8814	7.8487	7.9140
9	TCE/ecd	8.900	8.815	8.984	13	8.900	8.789	9.011	4	13	8.9102	8.8798	8.9406
10	12DCPa	9.221	9.125	9.316	13	9.221	9.188	9.253	4	13	9.2298	9.2098	9.2498
11	BrCl2methane	9.421	9.313	9.530	13	9.421	9.262	9.581	4	13	9.4296	9.3223	9.5368
	c13DCPe	10.344	10.242	10.447	13	10.344	10.176	10.512	4	13	10.3485	10.2106	10.4864
13	IS#2/ecd	11.257	11.139	11.376	13	11.257	11.237	11.277	R-or M-file IS dont bracket compound				
14	112TCEa	11.448	11.206	11.690	13	11.448	11.330	11.566	13	18	11.4475	11.3208	11.5741
15	PCE/ecd	11.619	11.546	11.691	13	11.619	11.490	11.747	13	18	11.6175	11.5087	11.7263
16	Br2Clmethane	[illegible]	[illegible]	[illegible]	13	11.970	11.769	12.170	13	18	11.9675	11.8095	12.1255
17	CHBr3	[illegible]	[illegible]	[illegible]	18	14.007	13.931	14.083	13	18	14.0078	13.9316	14.0839
18	IS3/ecd	[illegible]	[illegible]	[illegible]	18	14.378	14.358	14.398	R-or M-file IS dont bracket compound				
19	1122PCEa	14.749	14.634	14.864	18	14.739	14.661	14.817	R-or M-file IS dont bracket compound				
20	IS3#2	15.060	14.969	15.151	18	15.050	15.002	15.097	R-or M-file IS dont bracket compound				

INTERNAL STANDARD TABLE ORIGINAL (Red)

07-19-1991 08:18:14 Version 5.0

Sample Name: S-15 Data File: e:c410h10

Date: 04-10-1991 12:36:30 Method: CAPCOH 07-15-1991 13:33:18 # 142

Interface: 16 Cycle#: 10 Operator DEK Channel#: 0 Vial#: N.A.

Starting Peak Width: 6 Threshold: .5 Area Threshold: 50

Instrument Type: VARIAN 3300 Column Type: db-624

Solvent Description: He 7.00ml/min

Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDml1/ECDml

Detector 0: PID Detector 1: ECD

Misc. Information: #1/M604;#2/M611;tcl1/m067;IS/M617

Starting Delay: 3.00 Ending retention time: 15.50

Area reject: 0 One sample per 0.602 sec.

Amount injected: 1.00 Dilution factor: 30.00

Internal Standard Amount: 100

Sample Weight: 8.700000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	HEIGHT BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
1	3.592	CS2	231.2999	49.2185%	7496	1298	5.8	1	3	3	-.3323	3.0857E-02
2	6.000	c12DCE/VAc ORTW	~~11.7058~~	2.4909%	524	91	5.8	1	3	3	-1.039	2.2[illegible]E-02
3	6.421	IS-1/pid	100.0000	0.0000%	17906	3010	5.9	1	3	3	0	5.5[illegible]E-03
4	9.080	IS-2/pid	100.0000	0.0000%	6651	1369	4.9	1	4	4	0	1.5[illegible]E-02
5	10.475	toluene ORTW	~~0.8107~~	0.1726%	93	25	3.7	1	4	4	0	8.7[illegible]E-03
6	13.326	~~IS-3/pid~~	64.5140	13.7280%	3027	257	11.8	2	6	4	0	2.13[illegible]E-02
7	13.986	IS-3 153%	~~88.5340~~	18.8392% 524	~~1708~~	346	4.9	2		4		5.1844E-02
8	14.308	IS3#2	5.7751	1.2289%	166	44	3.8	1	6	4	-.9081	3.4884E-02
9	14.619		52.2305	11.1142%	1007	258	3.9	1		4		5.1844E-02
10	14.879		8.0835	1.7201%	156	46	3.4	1		4		5.1844E-02
11	15.321		6.9911	1.4876%	135	27	5.0	1		4		5.1844E-02

TOTAL AMOUNT = 469.9449

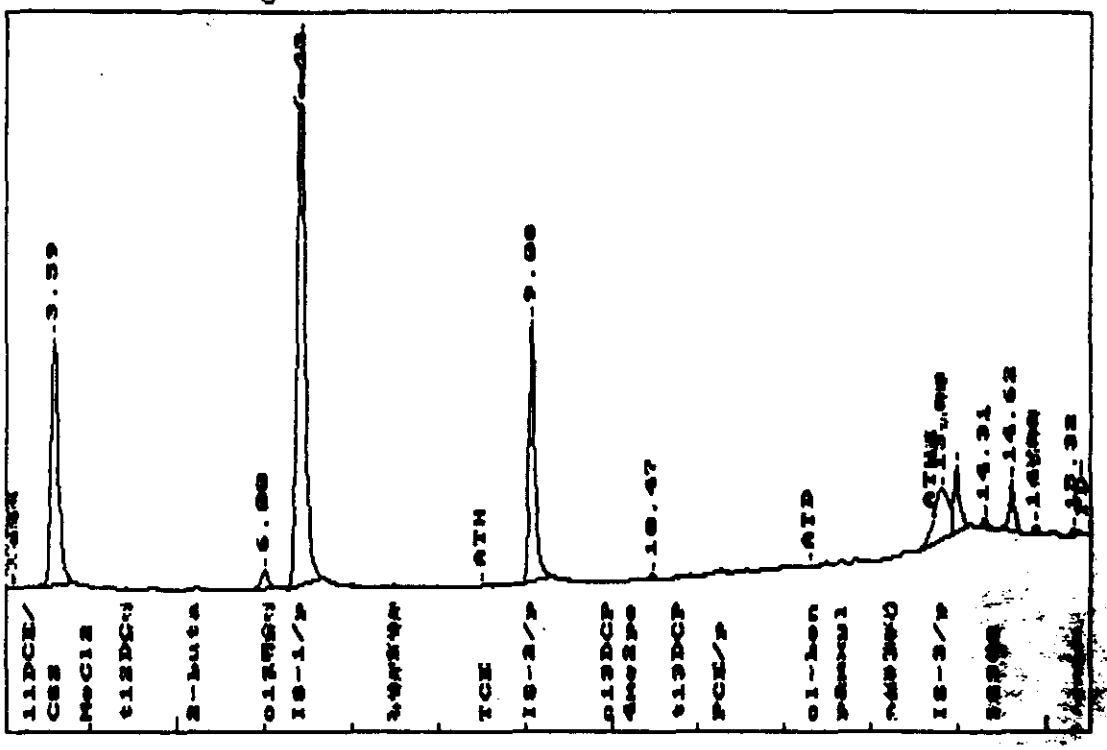
PEAKS NOT FOUND IN THIS RUN

E	ADJUSTED RET.TIME.	REFERENCE PEAK
1,1DCE/acet	3.34	IS-1/pid
MeCl2	3.98	IS-1/pid
t12DCEe	4.43	IS-1/pid
2-butanone	5.21	IS-1/pid
benzene	[illegible].51	IS-1/pid
TCE	[illegible]6	IS-2/pid
c12DCP	[illegible].98	IS-2/pid
4me2pent	[illegible]24	IS-2/pid
t13DCP	[illegible]80	IS-2/pid
PCE/p	11.27	IS-2/pid
2-hexanone	11.45	IS-2/pid
cl-benzene	12.34	IS-3/pid
eth-benzene	12.51	IS-3/pid
p&mxylene	12.69	IS-3/pid
oxyl/styrene	13.24	IS-3/pid

IS3 mis-ID'd and poorly integrated corrected 7/17/91 DEK

Areas, times, and heights stored in: E:C410H10.ATB
Data File = E:C410H10.PTS Printed on 04-10-1991 at 12:53:50
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 8521 uv High Value: 11561 uv Scale factor: 1.0

ORIGINAL (Red)



ORIGINAL (Red)

***** INTERNAL STANDARD TABLE *****

********** 07-18-1991 08:24:55 Version 5.0 **********

* Sample Name: S-15 Data File: c:d41ch10 *
* Date: 04-10-1991 12:36:30 Method: DAPCCH 07-15-1991 13:41:55 # 91 *
* Interface: 16 Cycle#: 10 Operator DEK Channel#: 1 Vial#: N.A. *
* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *
* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *
* Detector 0: PID Detector 1: ECD *
* Misc. Information: #1/M604;#2/M611;tcl1/m067;IS/M617 *

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 30.00
Internal Standard Amount: 100
Sample Weight: 8.700000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
	3.853		7.7416	0.2352%	2301	397	5.8	1		8		3.3647E-03
2	4.595		0.4882	0.0148%	145	33	4.3	1		8		3.3647E-03
3	4.957		0.1894	0.0058%	56	17	3.3	1		8		3.3[illegible]E-03
4	5.167		0.1985	0.0060%	59	21	2.8	1		8		3.3[illegible]E-03
5	5.488	11DCEa	0 RCW ~~15.2584~~	0.4636%	55	16	3.4	1	8	8	2.699	2.7[illegible]E-04
6	5.729		0.2228	0.0068%	66	17	3.8	1		8		3.3[illegible]E-03
7	5.890		0.1398	0.0042%	42	27	1.5	1		8		3.3647E-03
8	6.702	IS-1/ecd	100.0000	0.0000%	102484	14308	7.2	2	8	8	0	9.7576E-04
9	7.154	111TCEa	2.6943	0.0819%	13663	1535	8.9	3	8	8	0	1.9719E-04
10	7.445	CCl4	0.6321	0.0192%	18145	2846	6.4	4	8	8	.2518	3.4835E-05
11	8.829	TCE/ecd	0.5273	0.0160%	310	104	3.0	1	14	14	-.1663	1.7024E-03
12	9.351	12DCPa	1862.6566	56.5990%	5068	759	6.7	3	14	14	-.1223	3.6754E-01
13	9.582	BrCl2methane	0.1047	0.0032%	130	34	3.8	4	14	14	-.2081	8.0726E-04
14	11.187	IS#2/ecd	100.0000	0.0000%	12822	3461	3.7	1	14	14	0	7.7989E-03
15	11.548	PCE/ecd	1.4464	0.0440%	6226	1333	4.7	2	14	14	0	2.3232E-04
[illegible]	14.328	IS3/ecd	1027.3279	31.2166%	507087	8657	58.6	2	16	14	0	2.0259E-03
	15.010	IS3#2	371.3424	11.2837%	48258	3070	15.7	2	16	14	0	7.6950E-03

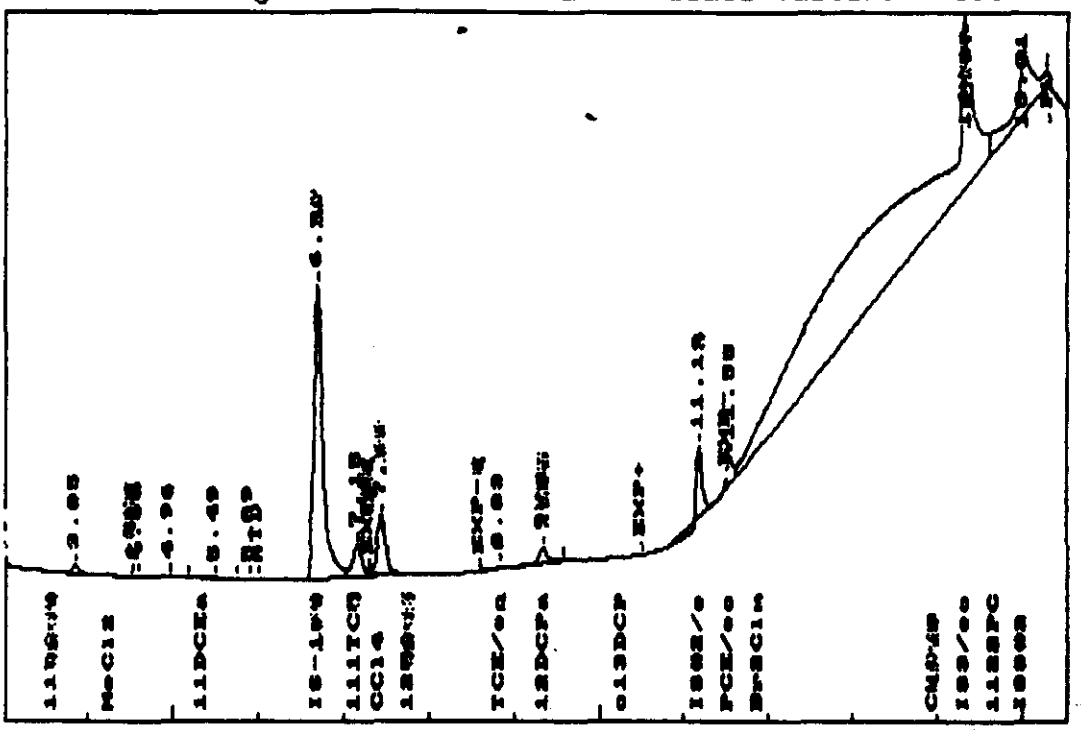
TOTAL AMOUNT = 3290.9702

PEAKS NOT FOUND IN THIS RUN

NAME	[illegible] TIME.	REFERENCE PEAK
11DCEe/e	[illegible]0	IS-1/ecd
MeCl2	[illegible]6	IS-1/ecd
CHCl3	[illegible]7	IS-1/ecd
12DCEa	[illegible]77	IS-1/ecd
c13DCPe	10.28	IS#2/ecd
112TCEa	11.38	IS#2/ecd
Br2Clmethane	11.90	IS#2/ecd
CHBr3	13.96	IS3/ecd
1122PCEa	14.69	IS3/ecd

Areas, times, and heights stored in: E:D410H10.ATB
Data File = E:D410H10.PTS Printed on 04-10-1991 at 12:55:59
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 26509 uv High Value: 54349 uv Scale factor: 1.0

ORIGINAL
(Red)



ORIGINAL

EXTERNAL STANDARD TABLE

07-24-1991 11:15:12 Version 5.0

Sample Name: S-15 Data File: e:c410h10

Date: 04-10-1991 12:36:30 Method: CAPISH 07-24-1991 11:09:07 # 93

Interface: 16 Cycle#: 10 Operator DEK Channel#: 0 Vial#: N.A.

Starting Peak Width: 6 Threshold: .5 Area Threshold: 50

Instrument Type: VARIAN 3300 Column Type: db-624

Solvent Description: He 3.00ml/min

Conditions: 40H4-55@6-140@10 spt27.6:1 Mkup33 N2 PIDr11/ECDr1

Detector 0: PID Detector 1: ECD

Misc. Information: #1/M604;#2/M611;tc11/m067;IS/~~M617~~ OK DEK 7/24/91

Starting Delay: 3.00 Ending retention time: 15.30

Area reject: 0 One sample per 0.602 sec.

Amount injected: 1.00 Dilution factor: 1.00

Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in QCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	HEIGHT BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	6.421	IS-1/pid	72.5503	42.9600%	17906	3010	5.9	1	0	-.7751	4.0516E-03
7	9.080	IS-2/pid	79.7783	47.2400%	6651	1369	4.9	1	0	-.5494	1.1995E-02
7	13.986	IS-3/pid	8.4191	4.9853%	1708	346	4.9	2	0	-.3573	4.9301E-03
9	14.619	IS3#2	8.1308	4.8146%	1007	258	3.9	1	0	-.2737	8.0[illegible]E-03

TOTAL AMOUNT = 168.8786

ORIGINAL (Red)

```
****** EXTERNAL STANDARD TABLE ******
******************** 06-17-1991 17:44:48 Version 5.0 ********************
* Sample Name: S-15                                  Data File: e:d410h10      *
* Date: 04-10-1991 12:36:30 Method: DAPISH2 06-17-1991 16:23:25  #  83        *
* Interface: 16  Cycle#:  10  Operator DEK Channel#: 1    Vial#: N.A.         *
* Starting Peak Width:  6   Threshold: .5  Area Threshold: 50                 *
*****************************************************************************
* Instrument Type: VARIAN 3300          Column Type: db-624                  *
*              Solvent Description: He 7.00ml/min                            *
* Conditions: 40H4-55@6-140@10 spt37.6:1 MkupII N2 PIDr11/ECDr1              *
*            Detector 0: PID                  Detector 1: ECD                *
* Misc. Information: #1/M604;#2/M611;tc11/m067;IS/M617                       *
*****************************************************************************
Starting Delay:    3.00                    Ending retention time:    15.50
Area reject:        0                      One sample per   0.602 sec.
Amount injected:        1.00               Dilution factor:        1.00
Sample Weight:          1.000000
```

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in QCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	6.702	IS-1/ecd	112.1486	31.0317%	102484	14308	7.2	2	0	.9078	1.0943E-03
14	11.187	IS#2/ecd	94.0806	26.0322%	25822	3674	7.0	1	0	.4507	3.64[illegible]E-03
16	14.328	IS3/ecd	61.4233	16.9959%	223786	6949	32.2	2	0	.3546	2.74[illegible]E-04
17	15.010	IS3#2	93.7481	25.9402%	89925	3314	27.1	2	0	.1996	1.04[illegible]E-03

TOTAL AMOUNT = 361.4005

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE; p. 1 of 1

Sample Name: S-15
Disc File: C:\NELSON\DATA\C410H10.ATB

Printout Date/Time: 04-10-1991 13:03:17
Method File: C:\NELSON\CAPCCH.MET Updated: 04-10-1991 11:20:31 version: 102
RT Window Width File: C:\NELSON\CAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

ATB File Peak No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window
1	CS2	3.592	-0.040	0.140	3	-0.012	0.087	R-or	M-file	IS dont	bracket
2	c12DCE/VAc	6.000	-0.110	0.098	3	-0.063	0.024	R-or	M-file	IS dont	bracket
3	IS-1/pid	6.421	-0.050	0.121	3	0.000	0.020	R-or	M-file	IS dont	bracket
4	IS-2/pid	9.080	-0.050	0.094	4	0.000	0.020	R-or	M-file	IS dont	bracket
5	toluene	10.475	-0.050	0.105	4	0.008	0.031	4	6	0.0456	0.0221
6	IS-3/pid	13.826	-0.211	0.088	6	0.000	0.020	R-or	M-file	IS dont	bracket
8	IS3#2	14.308	-0.351	0.092	6	-0.131	0.026	R-or	M-file	IS dont	bracket

out RT Index

ORIGINAL (Red)

RETENTION TIME EVALUATION TABLE; p. 2 of 2

Sample Name: S-15
Disc File: C:\NELSON\DATA\C410H10.ATB

Printout Date/Time: 04-10-1991 13:03:19
Method File: C:\NELSON\CAPCCH.MET Updated: 04-10-1991 11:20:31 version: 102
RT Window Width File: C:\NELSON\CAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

Method Peak number	Compound Name	External Standard Method			Relative Retention Time Method				Retention Time Index Method				
		Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	RRT RT Window High	Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	[illegible] Window Low	[illegible] Window [illegible]
1	11DCE/acet	3.361	3.276	3.446	7	3.335	3.259	3.411	R-or M-file IS dont [illegible]				
2	CS2	3.632	3.492	3.772	7	3.604	3.517	3.691	R-or M-file IS dont [illegible]				
3	MeCl2	4.013	3.878	4.149	7	3.982	3.896	4.068	R-or M-file IS dont [illegible]				
4	t12DCEe	4.465	4.338	4.592	7	4.430	4.374	4.487	R-or M-file IS dont bracket compound				
5	2-butanone	5.247	5.147	5.348	7	5.207	5.184	5.229	R-or M-file IS dont bracket compound				
6	c12DCE/VAc	6.110	6.012	6.208	7	6.063	6.039	6.087	R-or M-file IS dont bracket compound				
7	IS-1/pid	6.472	6.351	6.592	7	6.421	6.401	6.441	R-or M-file IS dont bracket compound				
8	benzene	7.565	7.461	7.669	7	7.507	7.465	7.548	7	10	7.5150	7.4950	7.5350
9	TCE	8.609	8.506	8.711	10	8.561	8.534	8.588	7	10	8.5585	8.5336	8.5833
10	IS-2/pid	9.130	9.037	9.224	10	9.080	9.060	9.100	R-or M-file IS dont bracket compound				
11	c13DCP	10.033	9.890	10.177	10	9.978	9.817	10.140	10	21	9.9537	9.7992	10.1081
12	4me2pent	10.294	10.202	10.386	10	10.238	10.215	10.260	10	21	10.2060	10.1860	10.2260
13	toluene	10.525	10.420	10.630	10	10.467	10.436	10.499	10	21	10.4292	10.4071	10.4513
14	t13DCP	10.856	10.771	10.941	10	10.796	10.755	10.838	10	21	10.7495	10.7289	10.7700
15	PCE/p	[illegible]	[illegible]	[illegible]	10	11.265	11.219	11.312	10	21	11.2056	11.1856	11.2256
16	2-hexanone	[illegible]	[illegible]	[illegible]	10	11.445	11.387	11.503	10	21	11.3803	11.3538	11.4068
17	cl-benzene	[illegible]	[illegible]	[illegible]	21	12.344	12.313	12.375	10	21	12.3702	12.3489	12.3915
18	eth-benzene	[illegible]	[illegible]	[illegible]	21	12.512	12.492	12.532	10	21	12.5352	12.5152	12.5552
19	p&mxylene	12.883	12.787	12.978	21	12.689	12.669	12.709	10	21	12.7099	12.6899	12.7299
20	oxyl/styrene	13.445	13.349	13.540	21	13.243	13.223	13.263	10	21	13.2534	13.2334	13.2734
21	IS-3/pid	14.037	13.949	14.124	21	13.826	13.806	13.846	R-or M-file IS dont bracket compound				
22	IS3#2	14.659	14.567	14.751	21	14.439	14.413	14.465	R-or M-file IS dont bracket compound				

ORIGINAL
(Red)

RETENTION TIME EVALUATION TABLE; p. 1 of 2

Sample Name: S-15
Disc File: C:\NELSON\DATA\D410H10.ATB

Printout Date/Time: 04-10-1991 13:06:25
Method File: C:\NELSON\DAPCCH.MET Updated: 04-10-1991 11:16:50 version: 94
RT Window Width File: C:\NELSON\DAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

ATB File No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window
5	11DCEa	5.488	0.080	0.098	8	0.144	0.020	R-or M-file IS dont bracket			
8	IS-1/ecd	6.702	-0.080	0.129	8	0.000	0.020	R-or M-file IS dont bracket			
9	111TCEa	7.154	-0.080	0.093	8	0.005	0.128	8	14	-0.0010	0.1037
10	CCl4	7.445	-0.070	0.086	8	0.019	0.114	8	14	0.0084	0.0720
11	TCE/ecd	8.829	-0.070	0.084	14	-0.015	0.111	8	14	0.0053	0.0305
12	12DCPa	9.351	-0.070	0.095	14	-0.011	0.032	8	14	0.0041	0.0200
13	BrCl2methane	9.582	-0.080	0.108	14	-0.020	0.159	8	14	-0.0065	0.1076
14	IS#2/ecd	11.187	-0.070	0.118	14	0.000	0.020	R-or M-file IS dont bracket			
15	PCE/ecd	11.548	-0.070	0.073	14	0.002	0.128	14	16	-0.0012	0.1092
16	IS3/ecd	14.328	-0.060	0.098	16	0.000	0.020	R-or M-file IS dont bracket			
17	IS3#2	15.010	-0.050	0.091	16	0.013	0.048	R-or M-file IS dont bracket			

ORIGINAL (Red)

RETENTION TIME EVALUATION TABLE; p. 2 of 2

Sample Name: S-15
Disc File: C:\NELSON\DATA\D410H10.ATB

Printout Date/Time: 04-10-1991 13:06:28
Method File: C:\NELSON\DAPCCH.MET Updated: 04-10-1991 11:16:50 version: 94
RT Window Width File: C:\NELSON\DAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

Method	Compound Name	External Standard Method			Relative Retention Time Method					Retention Time Index Method				
File Peak		Predictd	Ext. Std. Window		Ref.Pk.	Predictd	RRT RT Window			Ref.Peaks		Predictd	Ret.Index Window	
er		Ret.Time	Low	High	Number	Ret.Time	Low	High		No.1	No.2	Ret.Time	Low	High
1	11DCEe/e	3.642	3.494	3.790	4	3.599	3.507	3.691	IR-or M-file IS dont bracket compound					
2	MeC12	4.314	4.169	4.460	4	4.263	4.188	4.339	IR-or M-file IS dont bracket compound					
3	11DCEa	5.408	5.310	5.506	4	5.344	5.324	5.364	IR-or M-file IS dont bracket compound					
4	IS-1/ecd	6.783	6.653	6.912	4	6.702	6.682	6.722	IR-or M-file IS dont bracket compound					
5	CHC13	6.953	6.821	7.085	4	6.871	6.845	6.897		4	13	6.8732	6.8458	6.9007
6	111TCEa	7.234	7.141	7.327	4	7.148	7.019	7.278		4	13	7.1548	7.0512	7.2585
7	CC14	7.515	7.429	7.601	4	7.426	7.312	7.540		4	13	7.4364	7.3644	7.5084
8	12DCEa	7.866	7.766	7.967	4	7.773	7.713	7.833		4	13	7.7883	7.7556	7.8211
9	TCE/ecd	8.900	8.815	8.984	13	8.844	8.733	8.955		4	13	8.8241	8.7936	8.8546
10	12DCPa	9.421	9.326	9.517	13	9.363	9.330	9.395		4	13	9.3470	9.3270	9.3670
11	BrC12methane	9.662	9.554	9.770	13	9.602	9.442	9.762		4	13	9.5883	9.4807	9.6960
12	c13DCPe	10.344	10.242	10.447	13	10.280	10.112	10.448		4	13	10.2721	10.1338	10.4105
13	IS02/ecd	11.257	11.139	11.376	13	11.187	11.167	11.207	IR-or M-file IS dont bracket compound					
14	112TCEa	11.448	11.206	11.690	13	11.377	11.259	11.495		13	18	11.3784	11.2514	11.5055
15	PCE/ecd	11.619	11.546	11.691	13	11.546	11.417	11.675		13	18	11.5496	11.4404	11.6587
16	BrCl2ethane	11.970	11.849	12.091	13	11.895	11.695	12.096		13	18	11.9019	11.7433	12.0604
17	CHBr3	14.017	13.901	14.132	18	13.958	13.882	14.034		13	18	13.9552	13.8788	14.0316
18	IS3/ecd	14.388	14.289	14.486	18	14.328	14.308	14.348	IR-or M-file IS dont bracket compound					
19	1122PCEa	14.799	14.634	14.864	18	14.687	14.609	14.765	IR-or M-file IS dont bracket compound					
20	IS302	15.060	14.969	15.151	18	14.997	14.949	15.045	IR-or M-file IS dont bracket compound					

ORIGINAL (Red)

***** INTERNAL STANDARD TABLE *****

********** 07-18-1991 10:50:06 Version 5.0 **********

* Sample Name: S-BACK Data File: e:c410h11 *
* Date: 04-10-1991 13:07:02 Method: CAPCOH 07-15-1991 13:33:18 # 142 *
* Interface: 16 Cycle#: 11 Operator DEK Channel#: 0 Vial#: N.A. *
* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

****

* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *
* Detector 0: PID Detector 1: ECD *
* Misc. Information: #1/M604;#2/M611;tc11/m067;IS/M617 *

****

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 30.00
Internal Standard Amount: 100
Sample Weight: 16.469999

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
.	6.000	c12DCE/VAc	DRTW ~~6.0590~~	2.3740%	486	79	6.1 1	2	2	-1.039	1.2[redacted]E-02
2	6.421	IS-1/pid	100.0000	0.0000%	16952	2781	6.1 1	2	2	0	5.8[redacted]
3	9.060	IS-2/pid	100.0000	0.0000%	4515	963	4.7 1	3	3	0	2.2[redacted]
4	10.455	toluene	0.7170	0.2809%	105	28	3.7 1	3	3	.1027	[redacted]
5	11.538	2-hexanone	DRTW ~~10.1513~~	3.9774%	93	27	3.5 1	3	3	1.038	1.0[redacted]
6	12.813	p&mxylene	0.3580	0.1403%	81	22	3.7 1	7	3	0	4.4[redacted]
7	13.966	IS-3/pid	120.2743	47.1248%	7254	1075	6.7 3	7	3	0	1.6581E-02
8	14.298		37.4015	14.6543%	927	98	9.5 4		3		4.0340E-02
9	14.599	IS3#2	80.2643	31.4484%	2957	550	5.4 2	7	3	.0901	2.7144E-02

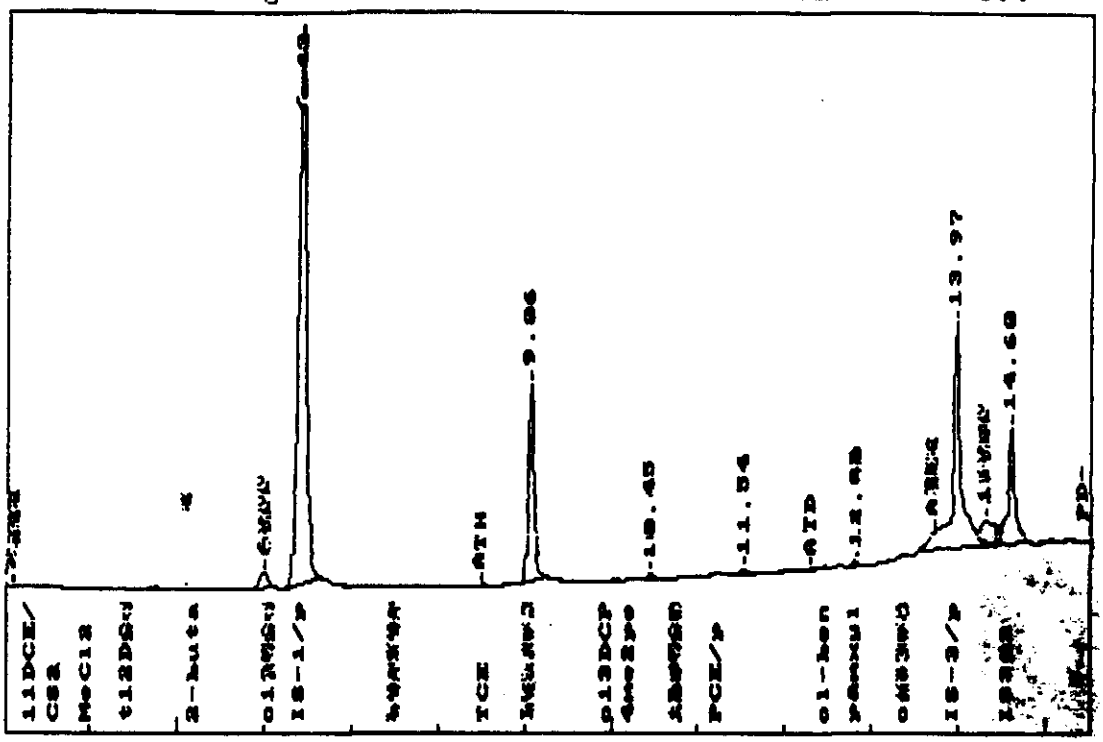
TOTAL AMOUNT = 255.2254

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
11DCE/acet	3.34	IS-1/pid
	3.60	IS-1/pid
MeCl2	3.98	IS-1/pid
t12DCEe	4.43	IS-1/pid
2-butanone	5.21	IS-1/pid
benzene	7.51	IS-1/pid
TCE	[redacted]	IS-2/pid
c13DCP	[redacted]	IS-2/pid
4me2pent	[redacted]	IS-2/pid
t13DCP	[redacted]	IS-2/pid
PCE/p	[redacted]	IS-2/pid
c1-benzene	[redacted]	IS-3/pid
eth-benzene	12.64	IS-3/pid
oxyl/styrene	13.38	IS-3/pid

Areas, times, and heights stored in: E:C410H11.ATB
Data File = E:C410H11.PTS Printed on 04-10-1991 at 13:24:13
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 8518 uv High Value: 11328 uv Scale factor: 1.0

ORIGINAL (Red)



****** INTERNAL STANDARD TABLE ******

******************** 07-18-1991 10:50:56 Version 5.0 ********************** ORIGINAL (Red)

* Sample Name: S-BACK Data File: e:d410h11 *
* Date: 04-10-1991 13:07:02 Method: DAPCCH 07-15-1991 13:41:55 # 91 *
* Interface: 16 Cycle#: 11 Operator DEK Channel#: 1 Vial#: N.A. *
* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

****

* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 FIDr11/ECDr1 *
* Detector 0: FID Detector 1: ECD *
* Misc. Information: #1/M604;#2/M611;tcl1/m067;IS/M617 *

****

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 30.00
Internal Standard Amount: 100
Sample Weight: 16.469999

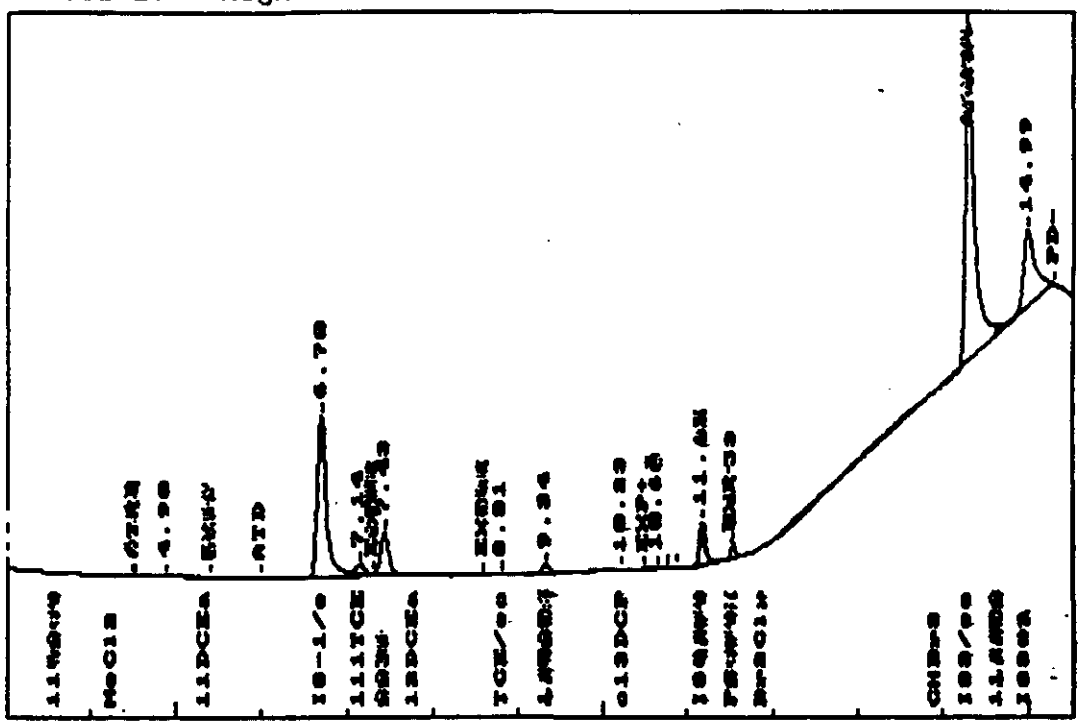
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
	4.495		0.7209	0.0861%	340	17	19.5	1		4		2.12[illegible]E-0[illegible]
2	4.896		0.1105	0.0132%	52	12	4.5	1		4		[illegible]
3	5.398	11DCEa	ORTW ~~14.0079~~	1.6727%	80	17	4.8	1	4	4	1.009	[illegible]
4	6.702	IS-1/ecd	100.0000	0.0000%	85860	11624	7.4	3	4	4	0	[illegible]
5	7.144	111TCEa	0.7441	0.0889%	5985	727	8.2	4	4	4	0	[illegible]
6	7.435	CCl4	0.4488	0.0536%	20433	3068	6.7	1	4	4	.1162	[illegible]
7	8.809	TCE/ecd	0.2100	0.0251%	296	59	5.0	1	13	13	-.2142	7.1059E-04
8	9.341	12DCPa	495.6384	59.1834%	3231	545	5.9	1	13	13	0	1.5342E-01
9	10.234	c13DCPe	2.5538	0.3049%	180	29	6.2	1	13	13	-.2669	1.4188E-02
10	10.655		1.4191	0.1695%	126	26	5.0	1		13		1.1226E-02
11	10.756		0.6183	0.0738%	55	25	2.2	2		13		1.1226E-02
12	10.886		2.0028	0.2392%	178	50	3.6	2		13		1.1226E-02
13	11.167	IS#2/ecd	100.0000	0.0000%	16226	3032	5.4	1	13	13	0	6.1628E-03
14	11.528	PCE/ecd	0.4455	0.0530%	4573	1072	4.3	1	13	13	0	9.6977E-05
15	14.298	IS3/ecd	138.7500	16.5679%	164072	25138	6.5	2	15	13	0	8.4566E-04
	14.990	IS3#2	179.7936	21.4689%	55975	5430	10.3	2	15	13	.1622	3.2120E-03

TOTAL AMOUNT = 837.4617

PEAKS NOT FOUND IN THIS RUN

NAME	ADJU[illegible]T.TIME.	REFERENCE PEAK
11DCEe/e	[illegible]0	IS-1/ecd
MeCl2	[illegible]26	IS-1/ecd
CHCl3	[illegible]87	IS-1/ecd
12DCEa	[illegible]77	IS-1/ecd
BrCl2methane	[illegible]58	IS#2/ecd
112TCEa	11.36	IS#2/ecd
Br2Clmethane	11.87	IS#2/ecd
CHBr3	13.93	IS3/ecd
1122PCEa	14.66	IS3/ecd

Areas, times, and heights stored in: E:D410H11.ATB
Data File = E:D410H11.PTS Printed on 04-10-1991 at 13:26:21
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 26582 uv High Value: 67276 uv Scale factor: 1.0



ORIGINAL (Red)

EXTERNAL STANDARD TABLE

07-24-1991 11:15:38 Version 5.0

Sample Name: G-BACK Data File: e:c41dn11

Date: 04-10-1991 13:07:02 Method: CAFISH 07-24-1991 11:09:07 # 93

Interface: 16 **Cycle#: 11** Operator DEK Channel#: 0 Vial#: N.A.

Starting Peak Width: 6 Threshold: .5 Area Threshold: 50

Instrument Type: VARIAN 3300 Column Type: db-624

Solvent Description: He 7.00ml/min

Conditions: 3044-55@5-140@10 sp=37.5:1 MkLo=0 N2 FID=11/ECD=1

Detector 0: FID Detector 1: ECD

Misc. Information: #1/M604;#2/M611;tc11/m067;IS/M617

Starting Delay 3.00 Ending retention time: 15.50

Area reject: 0 One sample per 0.602 sec.

Amount injected: 1.00 Dilution factor: 1.00

Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in QCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT BL	REF PEAK	% DELTA RET TIME	CONC.AREA
	6.421	IS-1/pid	68.5844	37.6414%	16952	2781	6.1 1	0	-.7751	4.0516E-03
	9.060	IS-2/pid	54.1591	29.6811%	4515	963	4.7 1	0	-.7692	1.1995E-02
7	13.966	IS-3/pid	35.7616	19.5986%	7254	1075	6.7 3	0	-.5003	4.9301E-03
9	14.599	I33#2	23.8653	13.0790%	2957	550	5.4 2	0	-.4106	8.0707E-03

TOTAL AMOUNT = 182.4704

***** EXTERNAL STANDARD TABLE **** ORIGINAL (Red)

******************** 06-17-1991 17:50:56 Version 5.0 ********************

* Sample Name: S-BACK Data File: e:d410h11 *

* Date: 04-10-1991 13:07:02 Method: DAPISH2 06-17-1991 16:23:25 # 83 *

* Interface: 16 Cycle#: 11 Operator DEK Channel#: 1 Vial#: N.A. *

* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

* Instrument Type: VARIAN 3300 Column Type: db-624 *

* Solvent Description: He 7.00ml/min *

* Conditions: 40H4-55@6-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *

* Detector 0: FID Detector 1: ECD *

* Misc. Information: #1/M604;#2/M611;tcl1/m067;IS/M617 *

Starting Delay: 3.00 Ending retention time: 15.50

Area reject: 0 One sample per 0.602 sec.

Amount injected: 1.00 Dilution factor: 1.00

Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in QCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	6.702	IS-1/ecd	93.9573	36.6356%	95860	11624	7.4	3	0	.9078	1.0943E-03
	.1.167	IS#2/ecd	59.1194	23.0516%	16226	3032	5.4	1	0	.2705	3.6434E-03
15	14.298	IS3/ecd	45.0334	17.5593%	164072	25138	6.5	2	0	.1438	2.7447E-04
16	14.990	IS3#2	58.3547	22.7535%	55975	5430	10.3	2	0	0	1.042[illegible]E-03

TOTAL AMOUNT = 256.4648

ORIGINAL (Red)

RETENTION TIME EVALUATION TABLE; p. 1 of

Sample Name: S-BACK
Disc File: C:\NELSON\DATA\C410H11.ATB

Printout Date/Time: 04-10-1991 13:31:18
Method File: C:\NELSON\CAPCCH.MET Updated: 04-10-1991 11:20:31 version: 102
RT Window Width File: C:\NELSON\CAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

ATB File No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window
1	c12DCE/VAc	6.000	-0.110	0.098	2	-0.063	0.024	R-or M-file IS dont bracket			
2	IS-1/pid	6.421	-0.050	0.121	2	0.000	0.020	R-or M-file IS dont bracket			
3	IS-2/pid	9.060	-0.070	0.094	3	0.000	0.020	R-or M-file IS dont bracket			
4	toluene	10.455	-0.070	0.105	3	0.011	0.031	3	7	0.0000	0.0225
5	2-hexanone	11.538	0.030	0.079	3	0.119	0.058	3	7	0.1003	0.0270
6	p&mxylene	12.813	-0.070	0.095	7	-0.006	0.020	3	7	0.0000	0.0200
7	IS-3/pid	13.966	-0.070	0.088	7	0.000	0.020	R-or M-file IS dont bracket			
9	IS3#2	14.599	-0.060	0.092	7	0.013	0.026	R-or M-file IS dont bracket			

out

out

ORIGINAL (Red)

RETENTION TIME EVALUATION TABLE; p. 2 of 2

Sample Name: S-BACK
Disc File: C:\NELSON\DATA\C410H11.ATB

Printout Date/Time: 04-10-1991 13:31:21
Method File: C:\NELSON\CAPCCH.MET Updated: 04-10-1991 11:20:31 version: 102
RT Window Width File: C:\NELSON\CAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 08:58:44
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:c325h1 e:c325h2 e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

Method Peak Number	Compound Name	External Standard Method: Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Relative Retention Time Method: Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	RRT RT Window High	Retention Time Index Method: Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	Ret.Index Window Low	Ret.Index Window High
1	11DCE/acet	3.361	3.276	3.446	7	3.335	3.259	3.411	R-or M-file IS dont bracket compound				
2	CS2	3.632	3.492	3.772	7	3.604	3.517	3.691	R-or M-file IS dont bracket compound				
3	MeCl2	4.013	3.878	4.149	7	3.982	3.896	4.068	R-or M-file IS dont bracket compound				
4	t12DCEe	4.465	4.338	4.592	7	4.430	4.374	4.487	R-or M-file IS dont bracket compound				
5	2-butanone	5.247	5.147	5.348	7	5.207	5.184	5.229	R-or M-file IS dont bracket compound				
6	c12DCE/VAc	6.110	6.012	6.208	7	6.063	6.039	6.087	R-or M-file IS dont bracket compound				
7	IS-1/pid	6.472	6.351	6.592	7	6.421	6.401	6.441	R-or M-file IS dont bracket compound				
8	benzene	7.565	7.461	7.669	7	7.507	7.465	7.548	7	10	7.5067	7.4867	7.5267
9	TCE	9.609	8.506	8.711	10	8.542	8.515	8.569	7	10	8.5423	8.5176	8.5671
10	IS-2/pid	9.130	9.037	9.224	10	9.060	9.040	9.080	R-or M-file IS dont bracket compound				
11	c13DCP	10.033	9.890	10.177	10	9.956	9.795	10.118	10	21	9.9631	9.8062	10.1201
12	4me2pent	10.294	10.202	10.386	10	10.215	10.192	10.238	10	21	10.2240	10.2040	10.2440
13	toluene	10.525	10.420	10.630	10	10.444	10.413	10.475	10	21	10.4548	10.4323	10.4772
14	t13DCP	10.856	10.771	10.941	10	10.773	10.731	10.814	10	21	10.7859	10.7650	10.8068
15	PCE/p	11.328	11.232	11.423	10	11.241	11.194	11.287	10	21	11.2574	11.2373	11.2775
16	2-hexanone	[illegible]	11.430	11.587	10	11.420	11.362	11.478	10	21	11.4380	11.4111	11.4650
17	cl-benzene	[illegible]	12.429	12.634	21	12.469	12.438	12.500	10	21	12.4614	12.4398	12.4831
18	eth-benzene	12.702	12.607	12.798	21	12.639	12.619	12.659	10	21	12.6320	12.6120	12.6520
19	pmxylene	12.883	12.787	12.978	21	12.818	12.798	12.838	10	21	12.8126	12.7926	12.8326
20	oxyl/styrene	13.445	13.349	13.540	21	13.377	13.357	13.397	10	21	13.3745	13.3545	13.3945
21	IS-3/pid	14.037	13.949	14.124	21	13.966	13.946	13.986	R-or M-file IS dont bracket compound				
22	IS3#2	14.659	14.567	14.751	21	14.585	14.559	14.611	R-or M-file IS dont bracket compound				

ORIGINAL (Red)

RETENTION TIME EVALUATION TABLE; p. 1 of

Sample Name: S-BACK
Disc File: C:\NELSON\DATA\D410H11.ATB

Printout Date/Time: 04-10-1991 13:33:48
Method File: C:\NELSON\DAPCCH.MET Updated: 04-10-1991 11:16:50 version: 94
RT Window Width File: C:\NELSON\DAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

ATB File No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window
3	11DCEa	5.398	-0.010	0.098	4	0.054	0.020	R-or M-file IS dont bracket			
4	IS-1/ecd	6.702	-0.080	0.129	4	0.000	0.020	R-or M-file IS dont bracket			
5	111TCEa	7.144	-0.090	0.093	4	-0.005	0.128	4	13	-0.0090	0.1034
6	CCl4	7.435	-0.080	0.086	4	0.009	0.114	4	13	0.0016	0.0718
7	TCE/ecd	8.809	-0.090	0.084	13	-0.019	0.110	4	13	-0.0053	0.0305
8	12DCPa	9.341	-0.080	0.095	13	-0.005	0.032	4	13	0.0059	0.0200
9	c13DCPe	10.234	-0.110	0.103	13	-0.027	0.167	4	13	-0.0221	0.1380
13	IS#2/ecd	11.167	-0.090	0.118	13	0.000	0.020	R-or M-file IS dont bracket			
14	PCE/ecd	11.528	-0.090	0.073	13	0.003	0.128	13	15	0.0000	0.1090
15	IS3/ecd	14.298	-0.090	0.098	15	0.000	0.020	R-or M-file IS dont bracket			
16	IS3#2	14.990	-0.070	0.091	15	0.024	0.048	R-or M-file IS dont bracket			

ORIGINAL (Red)

RETENTION TIME EVALUATION TABLE; p. 2 of 2

Sample Name: S-BACK
Disc File: C:\NELSON\DATA\D410H11.ATB

Printout Date/Time: 04-10-1991 13:33:51
Method File: C:\NELSON\DAPCCH.MET Updated: 04-10-1991 11:16:50 version: 94
RT Window Width File: C:\NELSON\DAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

Method File Peak Number	Compound Name	External Standard Method			Relative Retention Time Method						Retention Time Index Method				
		Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	RRT RT Window High	Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	Ret.Index Window Low	Ret.Index Window High
1	11DCEa/e	3.642	3.494	3.790	4	3.599	3.507	3.691	R-or M-file IS dont bracket compound				
2	MeC12	4.314	4.169	4.460	4	4.263	4.188	4.339	R-or M-file IS dont bracket compound				
3	11DCEa	5.408	5.310	5.506	4	5.344	5.324	5.364	R-or M-file IS dont bracket compound				
4	IS-1/ecd	6.783	6.653	6.912	4	6.702	6.682	6.722	R-or M-file IS dont bracket compound				
5	CHC13	6.953	6.821	7.085	4	6.871	6.845	6.897	4	13	6.8725	6.8451	6.8998
6	111TCEa	7.234	7.141	7.327	4	7.148	7.019	7.278	4	13	7.1528	7.0494	7.2562
7	CC14	7.515	7.429	7.601	4	7.426	7.312	7.540	4	13	7.4331	7.3613	7.5049
8	12DCEa	7.866	7.766	7.967	4	7.773	7.713	7.833	4	13	7.7835	7.7508	7.8161
9	TCE/ecd	8.900	8.815	8.984	13	8.828	8.717	8.939	4	13	8.8146	8.7841	8.8450
10	12DCPa	9.421	9.326	9.517	13	9.346	9.313	9.378	4	13	9.3352	9.3152	9.3552
11	BrC12methane	9.662	9.554	9.770	13	9.585	9.425	9.744	4	13	9.5754	9.4680	9.6828
12	c13DCPe	10.344	10.242	10.447	13	10.261	10.093	10.429	4	13	10.2561	10.1181	10.3942
13	IS#2/ecd	11.257	11.139	11.376	13	11.167	11.147	11.187	R-or M-file IS dont bracket compound				
14	112TCEa	11.448	11.206	11.690	13	11.356	11.238	11.474	13	18	11.3578	11.2309	11.4846
15	PCE/ecd	11.619	11.546	11.691	13	11.525	11.397	11.654	13	18	11.5283	11.4193	11.6373
16	Br2Clmethane	11.970	11.849	12.091	13	11.874	11.673	12.074	13	18	11.8795	11.7212	12.0378
17	CHBr3	14.017	13.901	14.132	18	13.929	13.852	14.005	13	18	13.9263	13.8501	14.0025
18	IS3/ecd	14.388	14.289	14.486	18	14.298	14.278	14.318	R-or M-file IS dont bracket compound				
19	1122PCEa	14.749	14.634	14.864	18	14.656	14.579	14.734	R-or M-file IS dont bracket compound				
20	IS3#2	15.060	14.969	15.151	18	14.966	14.918	15.013	R-or M-file IS dont bracket compound				

P. 10/2

INTERNAL STANDARD TABLE

07-15-1991 08:19:14 Version 3.0

Sample Name: S-16 Data File: [illegible]

Date: 04-10-1991 13:33:12 Method: DAFCOM 07-15-1991 13:33:18 # 112

Injection: 16 Cycle#: 12 Operator DEK Channel#: 0 Vial#: N.A.

Starting Peak Width: 6 Threshold: .5 Area Threshold: 50

Instrument Type: VARIAN 3300 Column Type: db-624

Solvent Description: He 7.00ml/min

Column: 40M4-SS@6-140@10 sp37.5:1 MXL22 N2 FIDr11/ECDr1

Detector 0: FID Detector 1: ECD

Peak Information: #1/M604;#2/M611;tc11/m067;IS/M617

Starting Retention Time: 3.20 Ending retention time: 15.50

Area Reject: 0 One sample per 0.602 sec.

Injection Volume: 1.00 Dilution factor: 30.00

Internal Standard Amount: 100

Response Factor: 12.530000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
	3.301	11DCE/acet	238.4394	1.7702%	3879	677	5.7	2	7	7	-.7135	6.1470E-02
2	3.441		244.1674	1.8127%	8568	1276	6.7	2		7		2.8498E-02
3	3.953	MeCl2	2479.6177	18.4086%	757	142	5.3	1	7	7	-.4192	3.2735E+00
4	4.395	t12DCEe	61.1955	0.4543%	1449	260	5.6	1	7	7	-.4931	4.2241E-02
5	5.037		2.7192	0.0202%	95	22	4.4	1		7		2.8498E-02
6	6.020	c12DCE/Ac	2269.4763	16.8485%	68693	11711	5.9	2	7	7	-.3968	3.3038E-02
7	6.401	IS-1/pid	100.0000	0.0000%	8401	933	9.0	2	7	7	0	1.1903E-02
8	7.144		8.0461	0.0597%	282	47	6.0	1		7		2.8498E-02
9	7.485	benzene	1131.3258	8.3989%	36749	11165	5.1	1	7	7	0	1.9935E-02
10	8.538	TCE	789.6877	5.8626%	36706	7708	4.8	1	11	11	-.1575	2.1514E-02
11	9.070	IS-2/pid	100.0000	0.0000%	2565	373	6.9	1	11	11	0	3.8980E-02
12	9.943	c1TDCP	205.0078	1.5220%	464	105	4.4	2	11	11	-.2422	4.4207E-01
13	10.062		162.4849	1.2063%	1741	387	4.5	2		11		9.3328E-02
14	10.224	4mePent	2342.9951	17.3943%	9073	1601	5.7	2	11	11	0	2.5824E-01
15	10.465	toluene	1350.1440	10.0234%	85746	19167	4.5	3	11	11	0	1.5746E-02
[illegible]	10.496		250.4861	1.8596%	2684	403	6.7	4		11		9.3328E-02
[illegible]	10.846	t1TDCP	512.4171	3.8042%	1659	215	7.7	4	11	11	.5706	3.0884E-01
18	11.097		47.9965	0.3563%	514	95	5.4	4		11		9.3328E-02
19	11.267	PCE/p	70.0385	0.5200%	4408	971	4.5	2	11	11	.1287	1.5891E-02
20	11.579	2-hexanone	318.6856	2.3659%	1266	295	4.4	2	11	11	1.278	2.5169E-01
21	12.231		21.0266	0.1561%	225	65	3.5	2		11		9.3328E-02
22	12.331		17.8540	0.1326%	191	43	4.4	2		11		9.3328E-02
23	12.471	cl-benzene	13.6548	0.1014%	538	118	4.6	2	31	11	-.4803	2.5399E-02
24	12.642	eth-benzene	39.4404	0.2926%	3170	814	3.9	2	31	11	-.4739	1.2431E-02
25	12.823	p&mxylene	149.4258	1.1093%	14664	3444	4.3	3	31	11	-.4672	1.0190E-02
26	13.174		16.6687	0.1237%	179	47	3.8	4		11		9.3328E-02
27	13.374	oxyl/styrene	58.6308	0.4353%	4143	892	4.6	2	31	11	-.5223	1.4152E-02
28	13.585		40.4792	0.3005%	434	98	4.4	2		11		9.3328E-02
29	13.736		11.2929	0.0838%	121	37	3.3	1		11		9.3328E-02
30	13.906		15.6304	0.1160%	167	51	3.3	2		11		9.3328E-02
31	14.037	~~IS-3/pid~~ not DS3	6.9095	0.0513%	180	37	4.9	2	31	11	0	3.8361E-02
32	14.338		42.7380	0.3173%	458	89	5.1	2		11		9.3328E-02
33	14.629	IS3#2	154.8387	1.1495%	2466	288	8.6	2	31	11	-.2053	6.2797E-02
34	14.739		137.6606	1.0220%	1475	225	6.5	2		11		9.3328E-02
35	15.080		131.5858	0.9769%	1410	258	5.5	2		11		9.3328E-02
36	15.261		127.1675	0.9441%	1363	275	4.9	2		11		9.3328E-02

TOTAL AMOUNT = 13469.9043

PEAKS NOT FOUND IN THIS RUN

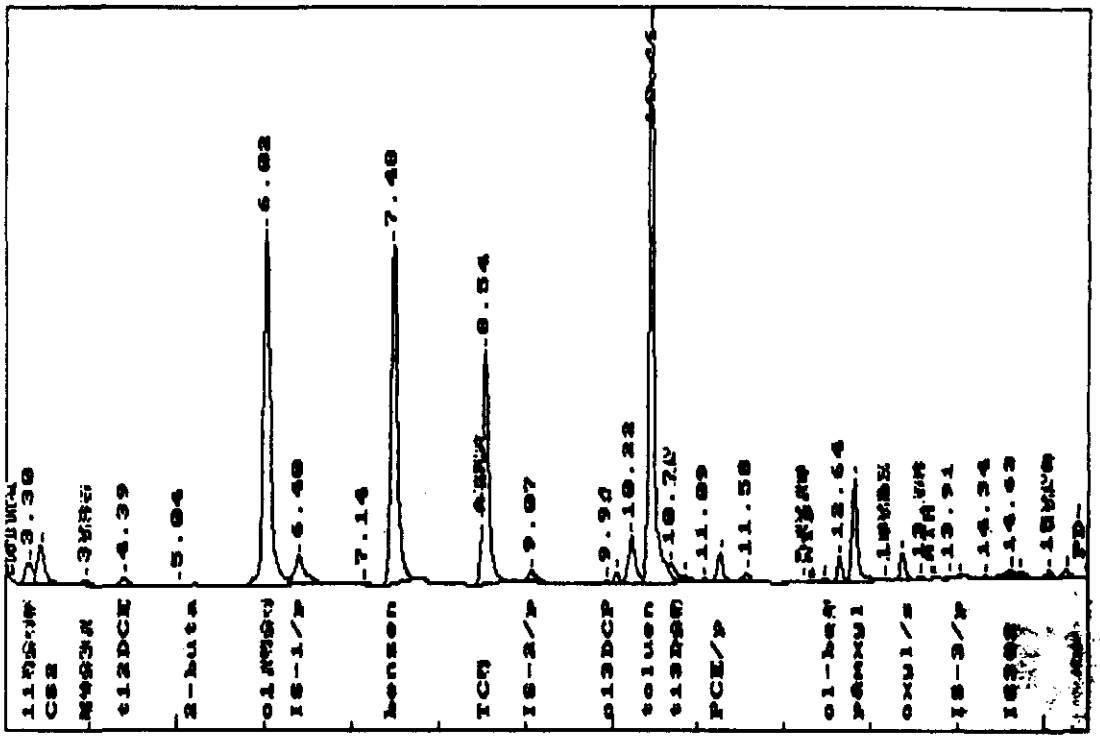
2-butanone 5.1? 13-1 ?

e: C410h12 p2of2 RL 410k

ORIGINAL
(Red)

Areas, times, and heights stored in: E:C410H12.ATB
Data File = E:C410H12.PTS Printed on 04-10-1991 at 13:50:48
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 8539 uv High Value: 27792 uv Scale factor: 1.0

ORIGINAL (Red)



ORIGINAL (Red)

INTERNAL STANDARD TABLE

********** 07-18-1991 09:25:52 Version 5.0 **********

* Sample Name: S-16 Data File: c:d410n12 *
* Date: 04-10-1991 13:33:12 Method: DAFCCH 07-15-1991 13:41:55 # 91 *
* Interface: 16 Cycle#: 12 Operator DEK Channel#: 1 Vial#: N.A. *
* Starting Peak Width: 6 Threshold: .5 Area Threshold: 50 *

* Instrument Type: VARIAN 3300 Column Type: db-624 *
* Solvent Description: He 7.00ml/min *
* Conditions: 40H4-5E06-140@10 spt37.6:1 Mkup33 N2 PIDr11/ECDr1 *
* Detector 0: PID Detector 1: ECD *
* Misc. Information: #1/M604;#2/M611;tcl1/m067;IS/M617 *

Starting Delay: 3.00 Ending retention time: 15.50
Area reject: 0 One sample per 0.602 sec.
Amount injected: 1.00 Dilution factor: 30.00
Internal Standard Amount: 100
Sample Weight: 12.530000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in ppb	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	INT.STD PEAK	% DELTA RET TIME	CONC/AREA
	3.261		1.6739	0.0219%	401	70	5.7	1		8		4.1750E-03
2	3.582	11DCEe/e	876.6145	11.4755%	24930	3544	7.0	1	8	8	-.3258	3.5163E-02
3	4.224	MeCl2	2394.2695	31.3428%	6185	865	7.2	1	8	8	-.7719	3.8713E-01
4	4.846		0.1709	0.0022%	41	15	2.7	1		8		4.1700E-03
5	5.329	11DCEa	842.6178	11.0305%	2438	299	8.1	1	8	8	-.1549	3.4540E-01
6	5.990		1.0795	0.0141%	259	24	10.9	1		8		4.1750E-03
7	6.371		1.3296	0.0174%	318	33	9.7	1		8		4.1750E-03
8	6.692	IS-1/ecd	100.0000	0.0000%	57348	9554	6.0	2	8	8	0	1.7437E-03
9	6.853	CHCl3	85.4830	1.1190%	56441	7896	7.1	2	8	8	-.1131	1.5146E-03
10	7.144	111TCEa	110.1091	1.4414%	450008	59917	7.5	4	8	8	0	2.4468E-04
11	8.309	TCE/ecd	944.2794	12.3613%	337902	54042	6.3	3	14	14	-.3038	2.7945E-03
12	9.331	12DCPa	2211.3652	28.9550%	3666	363	10.1	4	14	14	-.2472	6.0335E-01
13	11.037		39.6518	0.5191%	898	15	58.0	1		14		4.4147E-02
14	11.177	IS#2/ecd	100.0000	0.0000%	5423	1067	5.1	1	14	14	0	1.8439E-02
15	11.538	PCE/ecd	129.8342	1.6996%	340433	66403	5.1	1	14	14	0	3.8138E-04

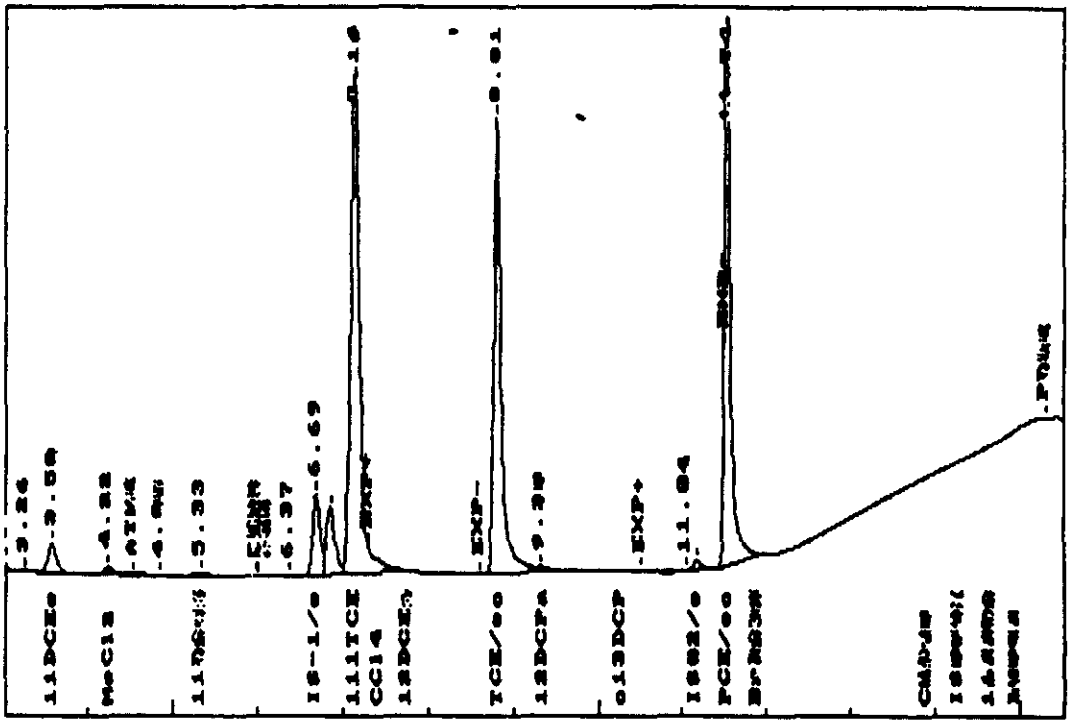
TOTAL AMOUNT = 7638.9780

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
CCl4	7.41	IS-1/ecd
12DCEa	7.76	IS-1/ecd
BrClmethane	9.59	IS#2/ecd
c13DCPe	10.27	IS#2/ecd
112TCEa	11.37	IS#2/ecd
Br2Clmethane	11.88	IS#2/ecd
CHBr3	13.92	IS3/ecd
IS3/ecd	14.29	IS3/ecd
1122PCEa	14.64	IS3/ecd
IS3#2	14.95	IS3/ecd

Areas, times, and heights stored in: E:D410H12.ATB
Data File = E:D410H12.PTS Printed on 04-10-1991 at 13:52:56
Start time: 3.00 min. Stop time: 15.50 min. Offset: 0 mv.
Low Value: 26679 uv High Value: 94404 uv Scale factor: 1.0

ORIGINAL (Red)



ORIGINAL (Red)

****** EXTERNAL STANDARD TABLE ******

********** 07-24-1991 11:16:43 Version 5.0 **********

* Sample Name: S-16 Data File: e:[illegible]

* Date: 04-10-1991 13:33:12 Method: [illegible] 07-24-1991 11:09:07 # 93

* Interface: 16 **Cycle#: 12** Operator [illegible] Channel#: 0 Vial#: N.A.

* Starting Peak Width: 6 Threshold: 15 Area Threshold: 50

* Instrument Type: VARIAN 3300 Column Type: db-624

* Solvent Description: [illegible] 7.00ml/min

* Conditions: 40H4-55@6-140@10 spt27.[illegible] [illegible] N2 FIDr11/ECDr1

* Detector 0: FID Detector 1: ECD

* [illegible] Information: #1/M604:#2/M611;[illegible]/m067;IS/M017

Starting Delay: 3.00 Ending retention time: 15.50

Area reject: 0 One sample per 0.602 sec.

Amount in ecsd: 1.00 Dilution factor: 1.00

Sample weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in QCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
[illegible]	6.401	IS-1/pid	34.0396	39.7664%	8401	933	9.0	2	0	-1.085	4.0516E-03
[illegible]	9.070	IS-2/pid	30.7712	35.9481%	2565	373	6.9	1	0	-.6593	1.1995E-02
31	14.037	~~IS-3/pid~~	0.8880	1.0374%	180	37	4.9	2	0	0	4.9301E-03
33	14.629	IS3#2	19.9000	23.2480%	2466	288	8.6	2	0	-.2053	8.0707E-03

TOTAL AMOUNT = 85.5988

wrong peak, no IS3 present

***** EXTERNAL STANDARD TABLE *****

07-08-1991 10:10:07 Version 5.0

Sample Name: S-16 | Data File: a:\41\b12

Date: 04-10-1991 13:33:12 Method: OAPISH 07-08-1991 09:42:46 # 82

Interface: 16 Cycle#: 12 Operator DEK Channel#: 1 Vial#: N.A.

Starting Peak Width: 6 Threshold: .5 Area Threshold: 50

Instrument Type: VARIAN 3300 Column Type: db-624

Solvent Description: He 7.09ml/min

Conditions: 40-4-5506-140210 ast77.6;1 Mkup30 N2 PID=11/ECD=1

Detector 1: ECD

Misc. Information: #1/M604;#2/M611;tcl1/m067;I3/M617

Starting Delay: 7.00 | Ending retention time: 15.00
Area reject: 0 | One sample per 0.602 sec.
Amount injected: 1.00 | Dilution factor: 1.00
Sample Weight: 1.000000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in OCarea%	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
	6.692	IS-1/ecd	63.7672	67.7610%	58272	7722	7.5	2	0	0	1.0943E-03
14	11.177	IS#2/ecd	30.3398	32.2390%	8327	1063	7.8	1	0	0	3.6434E-03

TOTAL AMOUNT = 94.1060

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
IS3/ecd	14.15	IS3/ecd
TCE#2	14.95	IS3/ecd

RETENTION TIME EVALUATION TABLE: [illegible] 1 of 2

Sample Name: S-16
Disc File: a:c410h1[illegible].ATB

[illegible] Date/Time: 07-10-1991 [illegible]
[illegible] File: C:\NELSON\capcch.MET Updated: [illegible] Version: [illegible]
[illegible] Width File: C:\NELSON\capcch.RTW Version No. [illegible]
[illegible] Width File Last Updated: [illegible]
[illegible] temperature range: Low: 20 degrees C High: [illegible] degrees C
[illegible] flow rates allowed for RT window application: Low: [illegible] High: 8.03
[illegible] window widths enlarged if coeluting pairs of target compounds.
[illegible] RT window width: .02
[illegible] Based on 99% Confidence Interval Using t Distribution.
[illegible] for RT window development:
[illegible] e:c325h2 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

ATB File Peak No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window
1	11DCE/acet	3.301	-0.060	0.065	7	-0.024	0.075	R-or M-file IS dont bracket			
3	MeCl2	3.953	-0.060	0.135	7	-0.017	0.085	R-or M-file IS dont bracket			
4	t12DCEe	4.395	-0.070	0.127	7	-0.022	0.056	R-or M-file IS dont bracket			
6	c12DCE/VAc	6.020	-0.090	0.098	7	-0.024	0.024	R-or M-file IS dont bracket			
7	IS-1/pid	6.401	-0.070	0.121	7	0.000	0.020	R-or M-file IS dont bracket			
9	benzene	7.485	-0.080	0.104	7	0.002	0.041	7	11	-0.0142	0.0200
10	TCE	8.538	-0.070	0.103	11	-0.013	0.027	7	11	-0.0081	0.0249
11	IS-2/pid	9.070	-0.060	0.094	11	0.000	0.020	R-or M-file IS dont bracket			
12	c13DCP	9.943	-0.090	0.144	11	-0.024	0.161	11	31	-0.0412	0.1579
14	AmeZpent	10.224	-0.070	0.092	11	-0.002	0.023	11	31	-0.0243	0.0200
15	toluene	10.465	-0.060	0.105	11	0.009	0.031	11	31	-0.0171	0.0226
17	t13DCP	10.846	-0.010	0.085	11	0.062	0.042	11	31	0.0290	0.0210
19	PCE/p	11.267	-0.060	0.095	11	0.014	0.046	11	31	-0.0270	0.0202
20	2-hexanone	11.579	0.070	0.079	11	0.146	0.058	11	31	0.1013	0.0271
23	cl-benzene	12.471	-0.060	0.103	31	-0.060	0.031	11	31	-0.0417	0.0218
24	eth-benzene	12.642	-0.060	0.095	31	-0.060	0.020	11	31	-0.0438	0.0200
25	p%mxylene	12.823	-0.060	0.095	31	-0.060	0.020	11	31	-0.0460	0.0200
27	oxyl/styrene	13.374	-0.070	0.095	31	-0.070	0.020	11	31	-0.0630	0.0200
31	IS-3/pid	14.037	0.000	0.088	31	0.000	0.020	R-or M-file IS dont bracket			
33	IS3#2	14.629	-0.030	0.092	31	-0.030	0.026	R-or M-file IS dont bracket			

IS3 not detected
∴ use ext. std RTw

RETENTION TIME EVALUATION TABLE: p.2 of 2

Sample Name: S-16
Disk File: a:c410h12.ATB

[illegible] Date/Time: 07-10-1991 [illegible]
[illegible] C:\NELSON\capcch.MET Updated: [illegible] version: 135
[illegible] Width File: C:\NELSON\capcch.MTW Version No. 1
[illegible] File Last Updated: [illegible]
[illegible] temperature range: Low: 70 degrees C High: 22 degrees C
[illegible] flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
[illegible] time window width is enlarged if coeluting pairs of target compounds.
[illegible] allowable RT window width: .02
[illegible] on 99 % Confidence Interval Using t Distribution.
[illegible] for RT window development:
[illegible] e:c325h3 e:c325h4 e:c325h6 e:c325h7 e:c325h8 e:c325h9

Method File Peak Number	Compound Name	External Standard Method: Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Relative Retention Time Method: Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	RRT RT Window High	Retention Time Index Method: Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	Ret.Index Window Low	Ret.Index Window High
1	11DCE/acet	3.361	3.276	3.446	7	3.325	3.249	3.401	R-or	M-file	IS dont	bracket	compound
2	CS2	3.632	3.492	3.772	7	3.593	3.505	3.680	R-or	M-file	IS dont	bracket	compound
3	MeCl2	4.013	3.878	4.149	7	3.970	3.884	4.056	R-or	M-file	IS dont	bracket	compound
4	t12DCEe	4.465	4.338	4.592	7	4.416	4.360	4.473	R-or	M-file	IS dont	bracket	compound
5	2-butanone	5.247	5.147	5.348	7	5.191	5.168	5.213	R-or	M-file	IS dont	bracket	compound
6	c12DCE/VAc	6.110	6.012	6.208	7	6.044	6.020	6.068	R-or	M-file	IS dont	bracket	compound
7	IS-1/pid	6.472	6.351	6.592	7	6.401	6.381	6.421	R-or	M-file	IS dont	bracket	compound
8	benzene	7.565	7.461	7.669	7	7.483	7.442	7.524	7	10	7.4991	7.4791	7.5191
9	TCE	8.609	8.506	8.711	10	8.552	8.525	8.579	7	10	8.5465	8.5216	8.5713
10	IS-2/pid	9.130	9.037	9.224	10	9.070	9.050	9.090	R-or	M-file	IS dont	bracket	compound
11	c12DCP	10.033	9.890	10.177	10	9.967	9.806	10.129	10	21	9.9842	9.8263	10.1422
12	4me2pent	10.294	10.202	10.386	10	10.226	10.204	10.249	10	21	10.2488	10.2283	10.2683
13	toluene	10.525	10.420	10.630	10	10.456	10.424	10.487	10	21	10.4819	10.4593	10.5045
14	t12DCP	10.856	10.771	10.941	10	10.785	10.743	10.826	10	21	10.8171	10.7961	10.8381
15	PCE/p	11.328	11.232	11.423	10	11.253	11.207	11.299	10	21	11.2944	11.2742	11.3146
16	2-hexanone	11.508	11.430	11.587	10	11.432	11.374	11.491	10	21	11.4772	11.4501	11.5044
17	cl-benzene	12.532	12.429	12.634	21	12.532	12.501	12.563	10	21	12.5132	12.4914	12.5350
18	eth-benzene	12.702	12.607	12.798	21	12.702	12.682	12.722	10	21	12.6859	12.6659	12.7059
19	p&mxylene	12.883	12.787	12.978	21	12.883	12.863	12.903	10	21	12.8687	12.8487	12.8887
20	oxyl/styrene	13.445	13.349	13.540	21	13.445	13.425	13.465	10	21	13.4374	13.4174	13.4574
21	IS-3/pid	14.037	13.949	14.124	21	14.037	14.017	14.057	R-or	M-file	IS dont	bracket	compound
22	IS3#2	14.659	14.567	14.751	21	14.659	14.633	14.685	R-or	M-file	IS dont	bracket	compound

RETENTION TIME EVALUATION TABLE; p. 1 of 1

Sample Name: S-16
Disc File: C:\NELSON\DATA\D410H12.ATB

Printout Date/Time: 04-10-1991 14:09:28
Method File: C:\NELSON\DAPCCH.MET Updated: 04-10-1991 11:16:50 version: 94
RT Window Width File: C:\NELSON\DAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

ATB File No.	Compound Name	Observed Ret.Time (min.)	External Standard RT Diff. obs-pred	External Standard Ext.Std. RTwindow	Relative Retention Time Ref.Pk. Number	Relative Retention Time RT Diff. obs-pred	Relative Retention Time RRT RT Window	Retention Index Method Ref.Peaks No.1	Retention Index Method Ref.Peaks No.2	Retention Index Method RT Diff. obs-pred	Retention Index Method Ret.Indx Window
2	11DCEe/e	3.582	-0.060	0.148	8	-0.012	0.091	R-or M-file IS dont bracket			
3	MeC12	4.224	-0.090	0.145	8	-0.033	0.075	R-or M-file IS dont bracket			
5	11DCEa	5.328	-0.080	0.098	8	-0.008	0.020	R-or M-file IS dont bracket			
8	IS-1/ecd	6.692	-0.090	0.129	8	0.000	0.020	R-or M-file IS dont bracket			
9	CHC13	6.853	-0.100	0.132	8	-0.008	0.025	8	14	-0.0104	0.0274
10	111TCEa	7.144	-0.090	0.093	8	0.006	0.128	8	14	-0.0010	0.1037
11	TCE/ecd	8.809	-0.090	0.084	14	-0.027	0.111	8	14	-0.0047	0.0305
12	12DCPa	9.331	-0.090	0.095	14	-0.023	0.032	8	14	-0.0059	0.0200
14	IS#2/ecd	11.177	-0.080	0.118	14	0.000	0.020	R-or M-file IS dont bracket			
15	PCE/ecd	11.538	-0.080	0.073	14	0.003	0.128	RT Index pred.&RTW not calc.			

RETENTION TIME EVALUATION TABLE;p.2 of 2

Sample Name: S-16
Disc File: C:\NELSON\DATA\D410H12.ATB

Printout Date/Time: 04-10-1991 14:09:31
Method File: C:\NELSON\DAPCCH.MET Updated: 04-10-1991 11:16:50 version: 94
RT Window Width File: C:\NELSON\DAPCCH.RTW Version No. 1
RT Window Width File Last Updated: 03-26-1991 10:02:53
RT Window ambient temperature range: Low: 20 degrees C High: 22 degrees C
Carrier gas flow rates allowed for RT Window application: Low: 5.95 HIGH: 8.05
Retention time window widths enlarged if coeluting pairs of target compounds.
Minimum allowable RT window width: .02
RT Windows Based on 99 % Confidence Interval Using t Distribution.
Data file I.D.'s for RT window development:
e:d325h1 e:d325h2 e:d325h3 e:d325h4 e:d325h6 e:d325h7 e:d325h8 e:d325h9

Method File Peak Number	Compound Name	External Standard Method			Relative Retention Time Method				Retention Time Index Method				
		Predictd Ret.Time	Ext. Std. Window Low	Ext. Std. Window High	Ref.Pk. Number	Predictd Ret.Time	RRT RT Window Low	RRT RT Window High	Ref.Peaks No.1	Ref.Peaks No.2	Predictd Ret.Time	Ret.Index Window Low	Ret.Index Window High
1	11DCEa/e	3.642	3.494	3.790	4	3.594	3.502	3.685	R-or M-file IS dont bracket compound				
2	MeCl2	4.314	4.169	4.460	4	4.257	4.182	4.332	R-or M-file IS dont bracket compound				
3	11DCEa	5.408	5.310	5.506	4	5.336	5.316	5.356	R-or M-file IS dont bracket compound				
4	IS-1/ecd	6.783	6.653	6.912	4	6.692	6.672	6.712	R-or M-file IS dont bracket compound				
5	CHCl3	6.953	6.821	7.085	4	6.861	6.835	6.886	4	13	6.8632	6.8358	6.8906
6	111TCEa	7.234	7.141	7.327	4	7.138	7.009	7.267	4	13	7.1448	7.0411	7.2484
7	CCl4	7.515	7.429	7.601	4	7.415	7.301	7.529	4	13	7.4263	7.3543	7.4983
8	12DCEa	7.866	7.766	7.967	4	7.761	7.702	7.821	4	13	7.7783	7.7456	7.8110
9	TCE/ecd	8.900	8.815	8.984	13	8.836	8.725	8.947	4	13	8.8140	8.7835	8.8446
10	12DCPa	9.421	9.326	9.517	13	9.354	9.322	9.387	4	13	9.3370	9.3170	9.3570
11	BrCl2methane	9.662	9.554	9.770	13	9.593	9.433	9.753	4	13	9.5783	9.4707	9.6859
12	c13DCPe	10.344	10.242	10.447	13	10.271	10.103	10.439	4	13	10.2621	10.1237	10.4004
13	IS#2/ecd	11.257	11.139	11.376	13	11.177	11.157	11.197	R-or M-file IS dont bracket compound				
14	112TCEa	11.448	11.206	11.690	13	11.366	11.249	11.484	RT Index predictions&RTWs not calc'd				
15	PCE/ecd	11.619	11.546	11.691	13	11.536	11.407	11.665	RT Index predictions&RTWs not calc'd				
16	Br2Clmethane	11.970	11.849	12.091	13	11.884	11.684	12.085	RT Index predictions&RTWs not calc'd				
17	CHBr3	14.017	13.901	14.132	***RRT REFERENCE PEAK NOT FOUND***				RT Index predictions&RTWs not calc'd				
18	IS3/ecd	14.388	14.289	14.486	***RRT REFERENCE PEAK NOT FOUND***				R-or M-file IS dont bracket compound				
19	1122PCEa	14.749	14.634	14.864	***RRT REFERENCE PEAK NOT FOUND***				R-or M-file IS dont bracket compound				
20	IS3#2	15.060	14.969	15.151	***RRT REFERENCE PEAK NOT FOUND***				R-or M-file IS dont bracket compound				