

Date : 02-MAY-2011 16:13

Client ID: LL-SB3-0-0,5-041911

Instrument: nt4.i

Sample Info: SS71J

Volume Injected (uL): 1.0

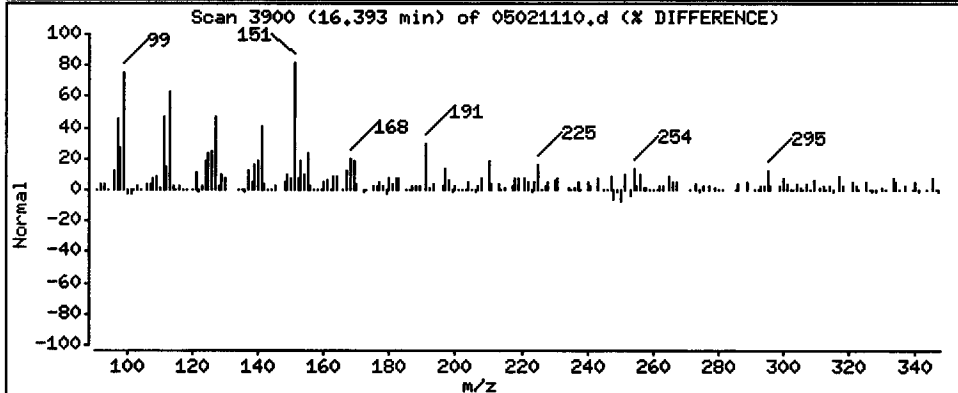
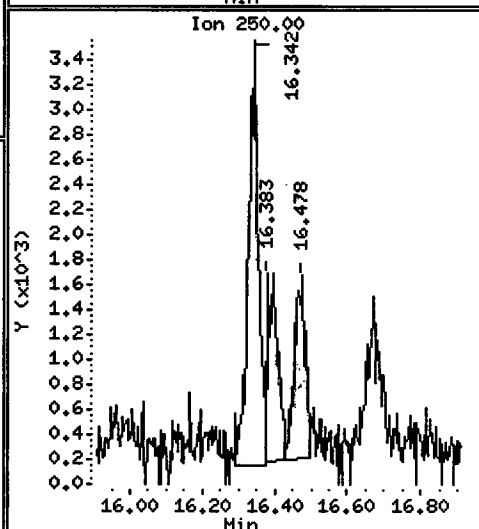
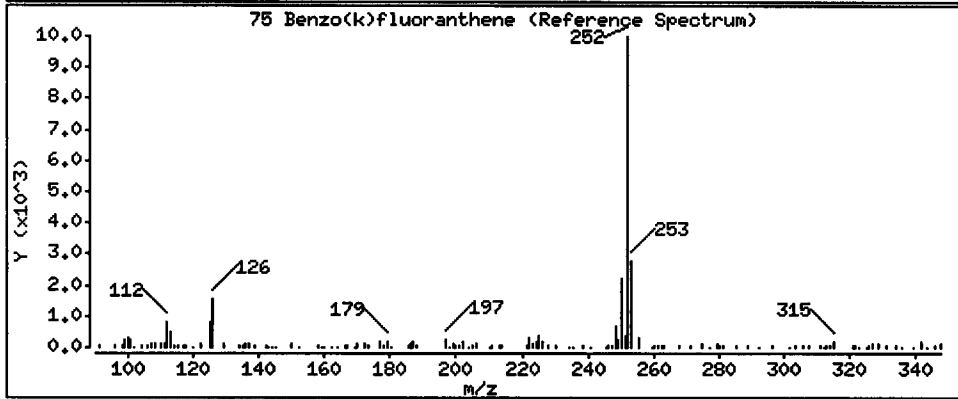
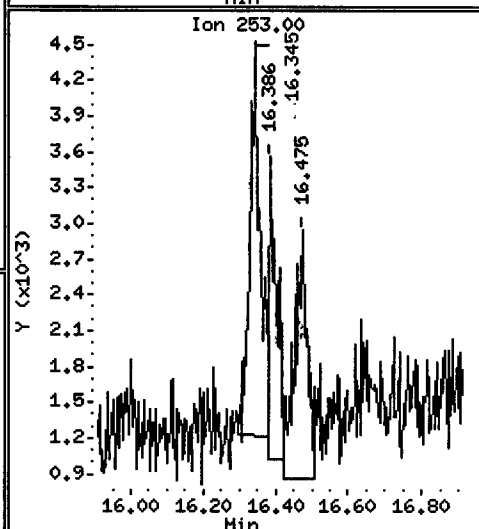
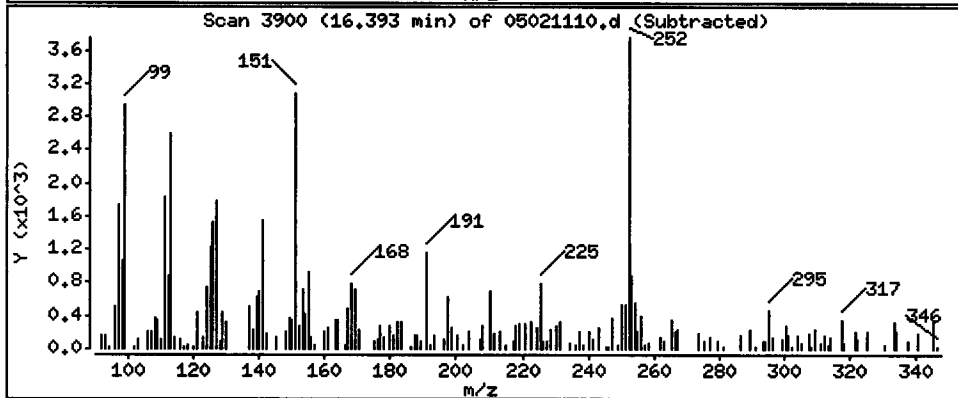
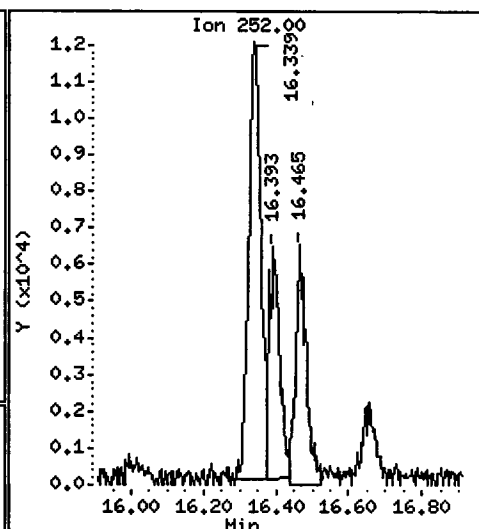
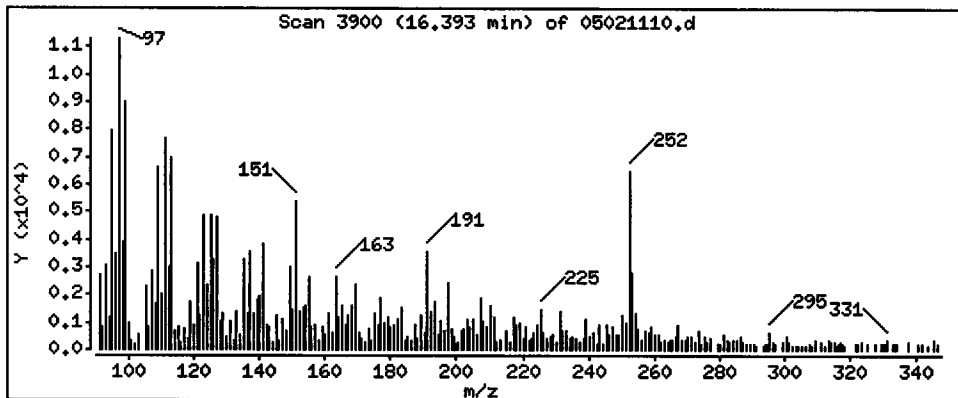
Operator: JZ

Column phase: ZB35

Column diameter: 0,32

75 Benzo(k)fluoranthene

Concentration: 4,913 ug/kg



Date : 02-MAY-2011 16:13

Client ID: LL-SB3-0-0.5-041911

Instrument: nt4.i

Sample Info: SS71J

Volume Injected (uL): 1.0

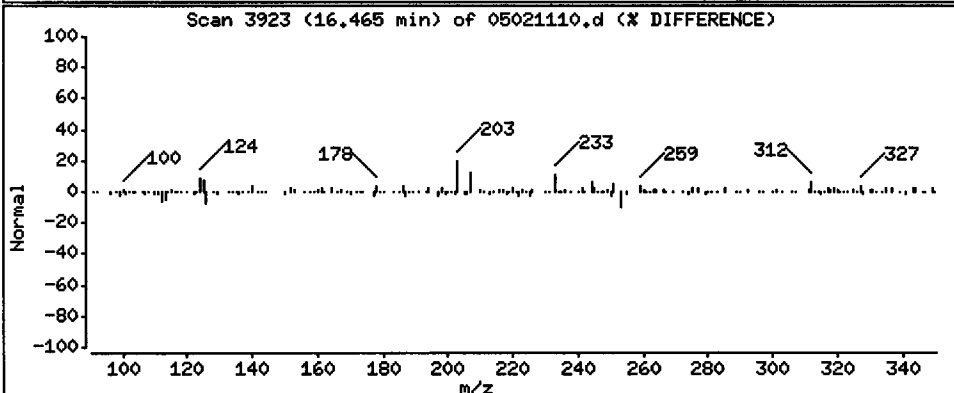
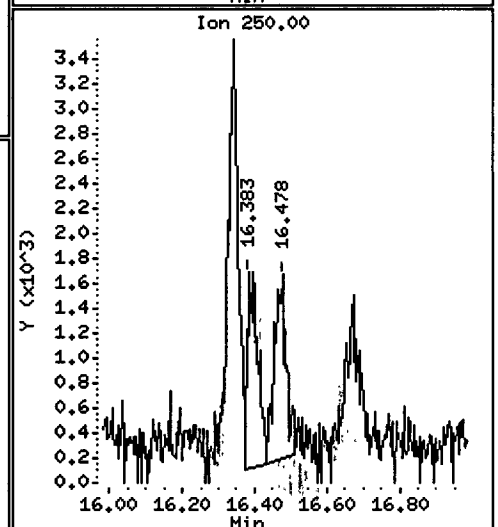
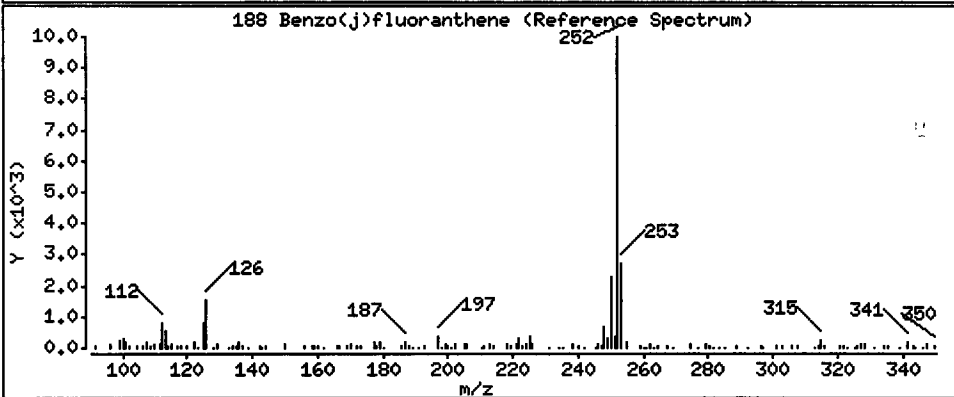
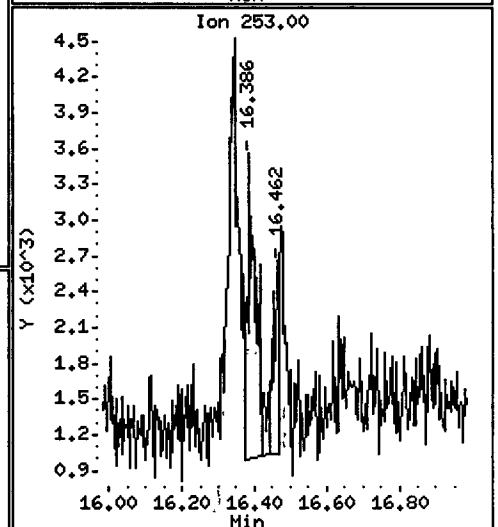
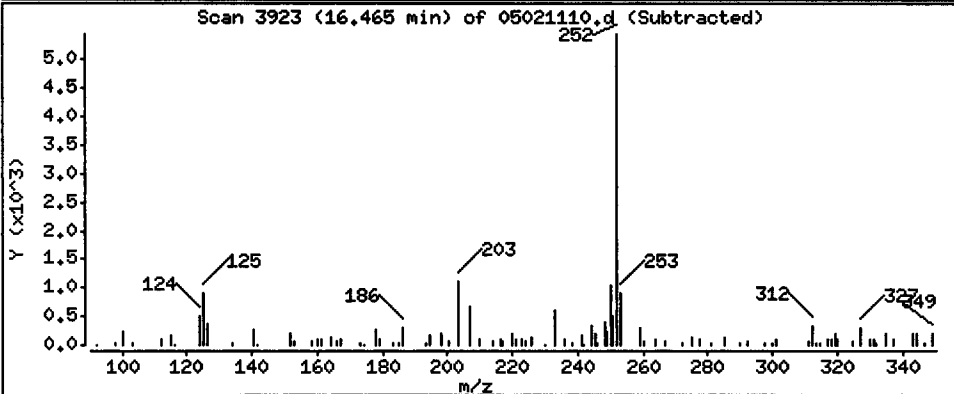
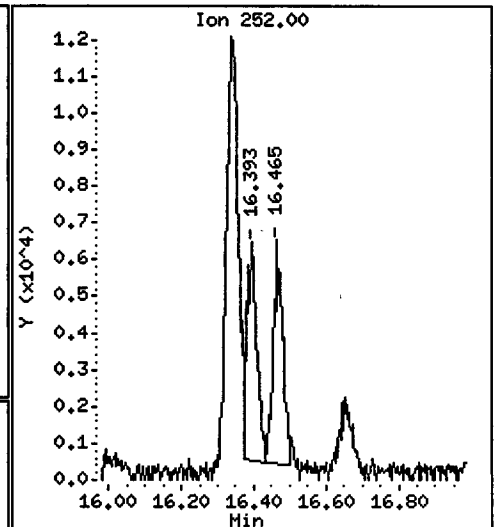
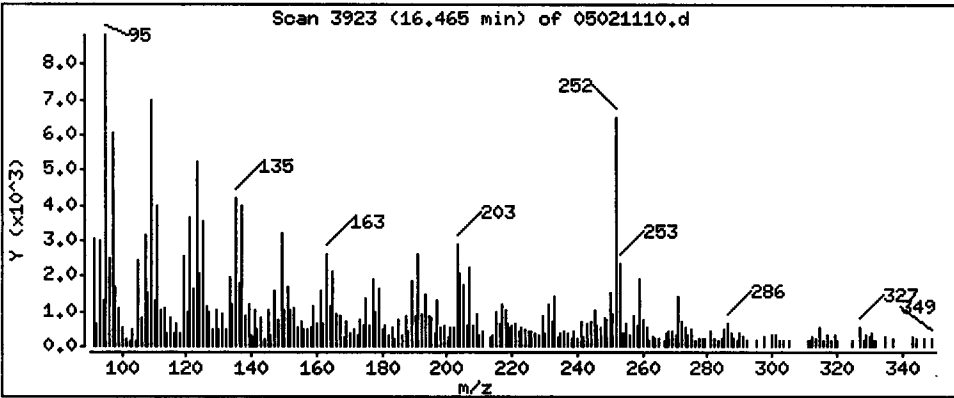
Operator: JZ

Column phase: ZB35

Column diameter: 0.32

188 Benzo(j)fluoranthene

Concentration: 4.072 ug/kg



Date : 02-MAY-2011 16:13

Client ID: LL-SB3-0-0,5-041911

Instrument: nt4.i

Sample Info: SS71J

Volume Injected (uL): 1.0

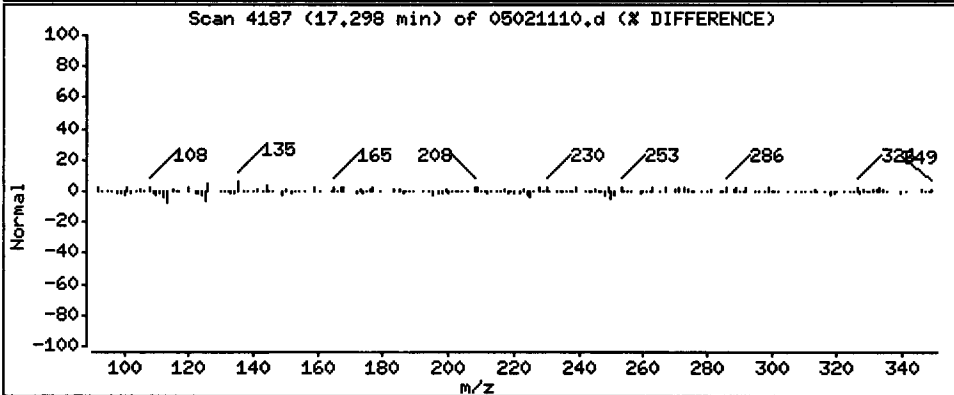
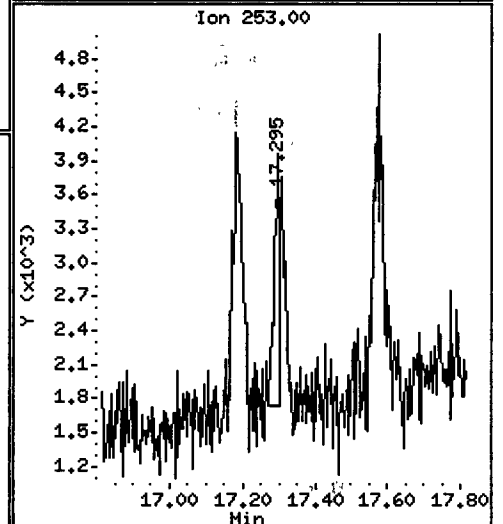
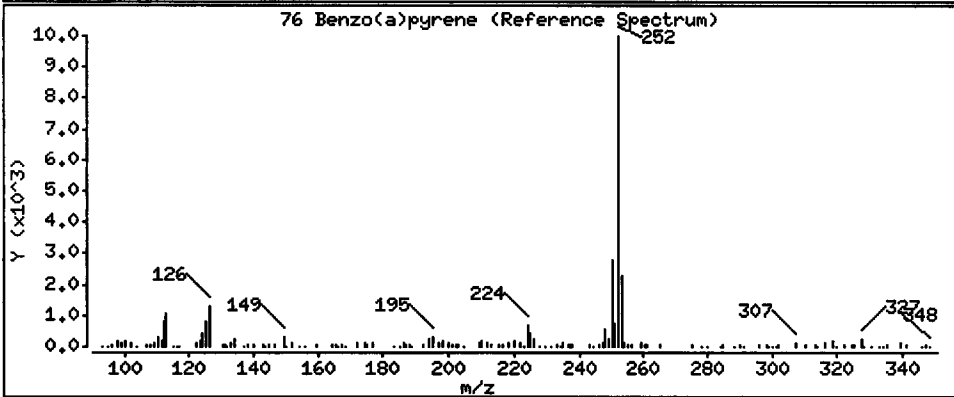
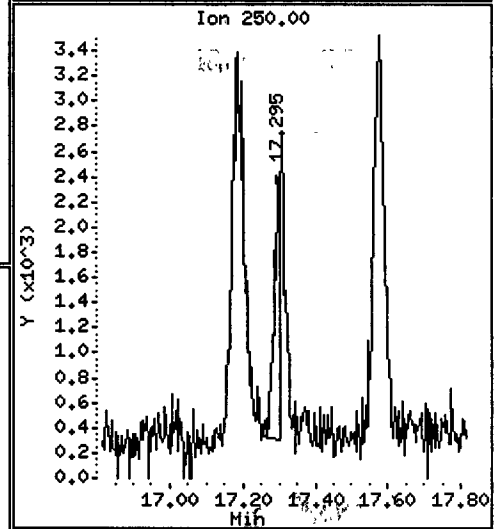
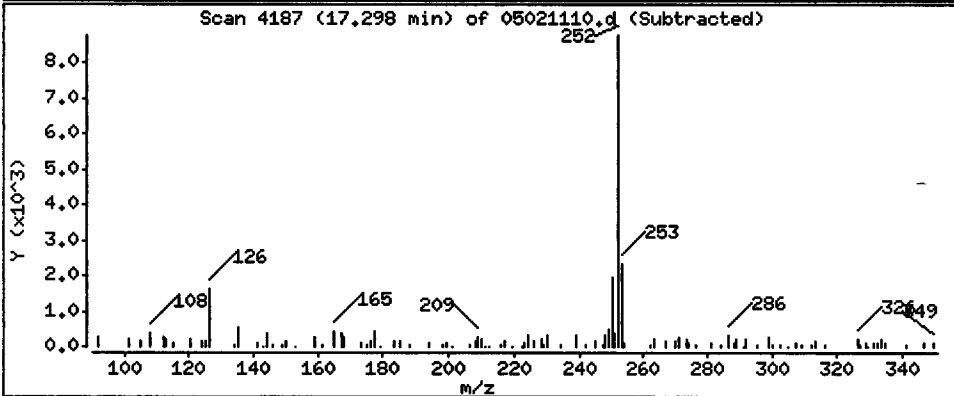
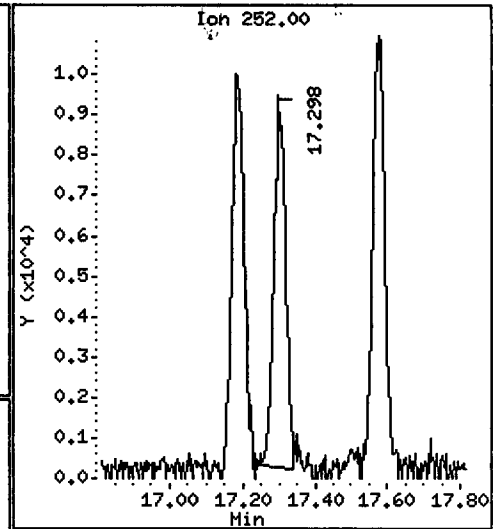
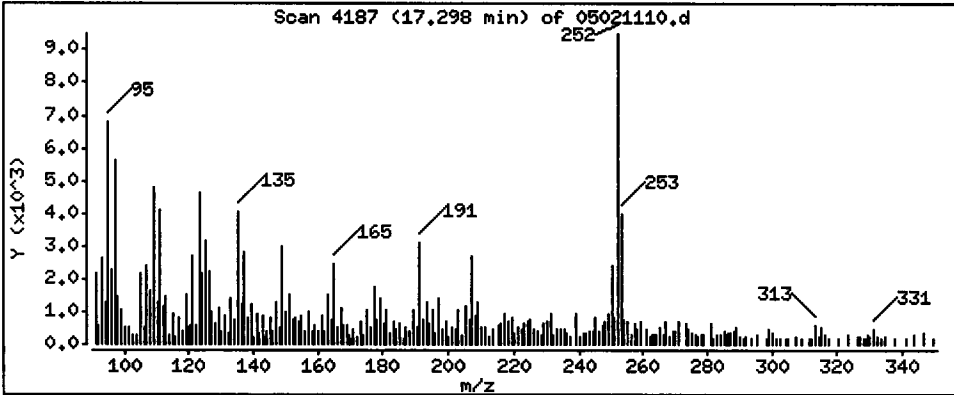
Operator: JZ

Column phase: ZB35

Column diameter: 0.32

76 Benzo(a)pyrene

Concentration: 8.690 ug/kg



Date : 02-MAY-2011 16:13

Client ID: LL-SB3-0-0,5-041911

Instrument: nt4.i

Sample Info: SS71J

Volume Injected (uL): 1.0

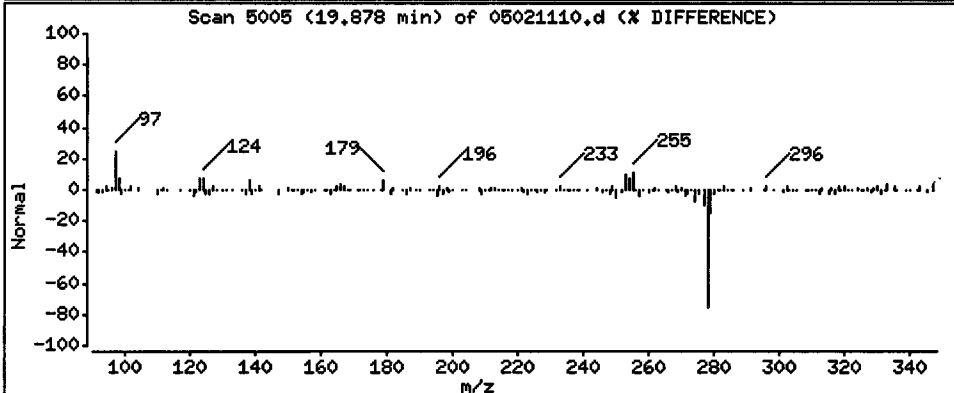
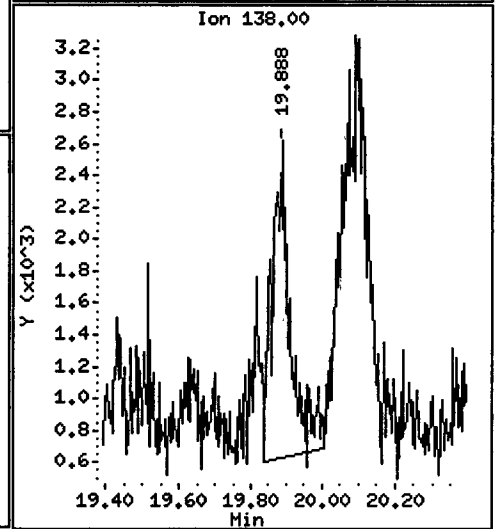
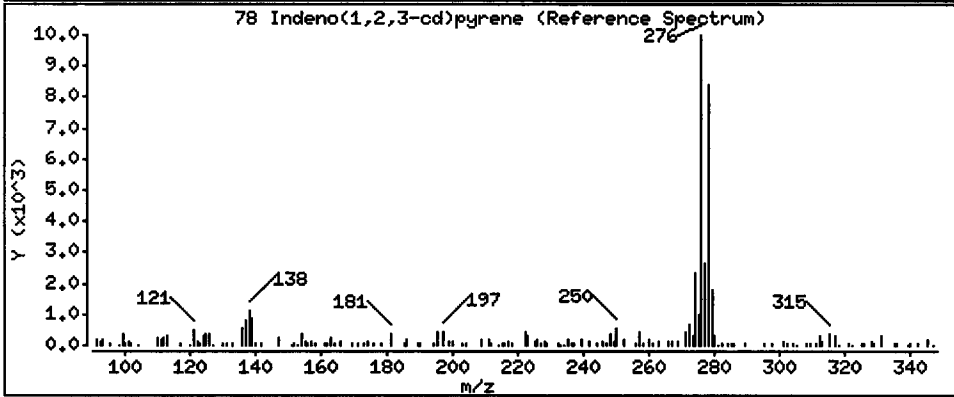
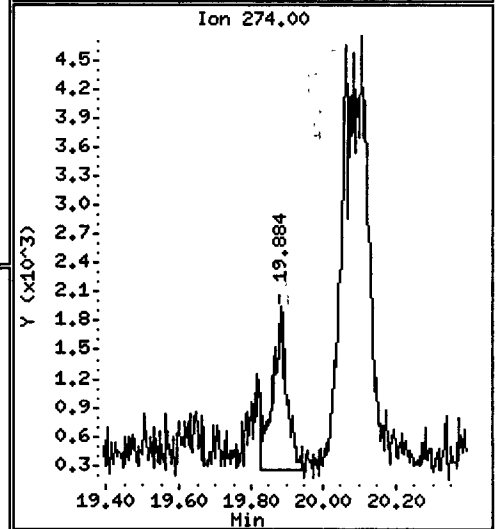
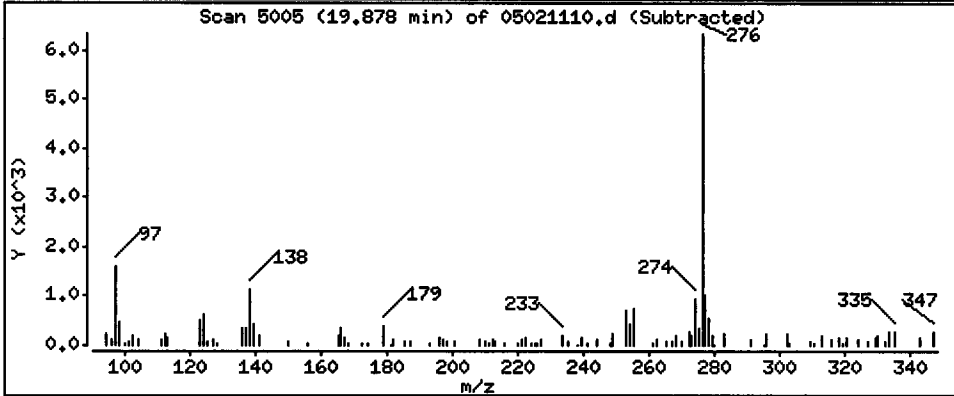
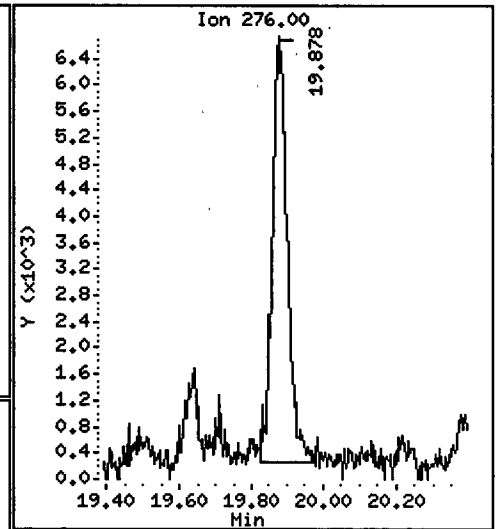
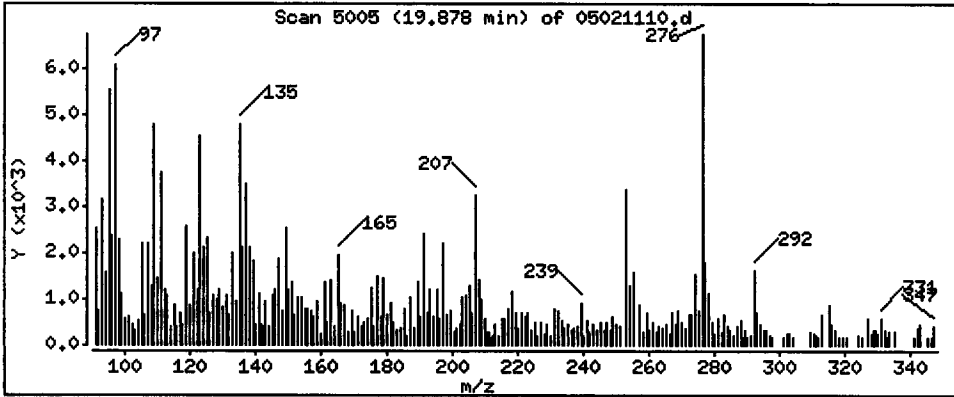
Operator: JZ

Column phase: ZB35

Column diameter: 0.32

78 Indeno(1,2,3-cd)pyrene

Concentration: 6.859 ug/kg



CO-ELUTION SUMMARY FOR FILE - 05021110.d

Lab ID: SS71J, Method: SIMPNA0421.m, Instrument: nt4.i, Date: 02-MAY-2011

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20110502.b/05021111.d
 Lab Smp Id: SS71K Client Smp ID: LL-SB3-1.5-2-041911
 Inj Date : 02-MAY-2011 16:41
 Operator : JZ Inst ID: nt4.i
 Smp Info : SS71K
 Misc Info : 11-8664
 Comment : 1ul Injection
 Method : /chem3/nt4.i/20110502.b/SIMPNA0421.m
 Meth Date : 02-May-2011 19:51 jianqing Quant Type: ISTD
 Cal Date : 21-APR-2011 22:25 Cal File: 04211107.d
 Als bottle: 11
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pmax.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Vt / (Ws * (100 - M) / 100) * CpndVariable

Handwritten signature and date: 05/02/11

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	12.47000	Weight of sample extracted (g)
M	10.30000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)
* 27 Naphthalene-d8	136	4.869	4.881	(1.000)	252640	2.00000	
28 Naphthalene	128	Compound Not Detected.					
\$ 190 2-Methylnaphthalene-d10	152	5.610	5.623	(1.152)	84107	1.19108	53.24
32 2-Methylnaphthalene	141	Compound Not Detected.					
105 1-methylnaphthalene	141	Compound Not Detected.					
40 Acenaphthylene	152	Compound Not Detected.					
* 42 Acenaphthene-d10	164	7.128	7.137	(1.000)	152058	2.00000	
44 Acenaphthene	153	Compound Not Detected.					
46 Dibenzofuran	168	Compound Not Detected.					
49 Fluorene	166	Compound Not Detected.					
* 59 Phenanthrene-d10	188	9.074	9.083	(1.000)	252074	2.00000	
60 Phenanthrene	178	Compound Not Detected.					
61 Anthracene	178	Compound Not Detected.					
64 Fluoranthene	202	Compound Not Detected.					
65 Pyrene	202	Compound Not Detected.					

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)
=====	=====	==	=====	=====	=====	=====	=====
68 Benzo(a)anthracene	228		Compound Not Detected.				
* 69 Chrysene-d12	240	13.818	13.834	(1.000)	258113	2.00000	
71 Chrysene	228		Compound Not Detected.				
74 Benzo(b)fluoranthene	252		Compound Not Detected.				
75 Benzo(k)fluoranthene	252		Compound Not Detected.				
188 Benzo(j)fluoranthene	252		Compound Not Detected.				
76 Benzo(a)pyrene	252		Compound Not Detected.				
* 77 Perylene-d12	264	17.503	17.521	(1.000)	225005	2.00000	
78 Indeno(1,2,3-cd)pyrene	276		Compound Not Detected.				
\$ 191 Dibenzo(a,h)anthracene-d14	292	19.799	19.821	(1.131)	199378	2.14196	95.75
79 Dibenzo(a,h)anthracene	278		Compound Not Detected.				
80 Benzo(g,h,i)perylene	276		Compound Not Detected.				
99 Perylene	252		Compound Not Detected.				

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt4.i	Calibration Date: 02-MAY-2011
Lab File ID: 05021111.d	Calibration Time: 12:06
Lab Smp Id: SS71K	Client Smp ID: LL-SB3-1.5-2-041
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Soil
Operator: JZ	
Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m	
Misc Info: 11-8664	

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	276036	138018	552072	252640	-8.48
42 Acenaphthene-d10	158527	79264	317054	152058	-4.08
59 Phenanthrene-d10	277528	138764	555056	252074	-9.17
69 Chrysene-d12	304115	152058	608230	258113	-15.13
77 Perylene-d12	257833	128916	515666	225005	-12.73

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	4.88	4.38	5.38	4.87	-0.25
42 Acenaphthene-d10	7.14	6.64	7.64	7.13	-0.13
59 Phenanthrene-d10	9.08	8.58	9.58	9.07	-0.10
69 Chrysene-d12	13.83	13.33	14.33	13.82	-0.11
77 Perylene-d12	17.52	17.02	18.02	17.50	-0.11

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

Analytical Resources, Inc.

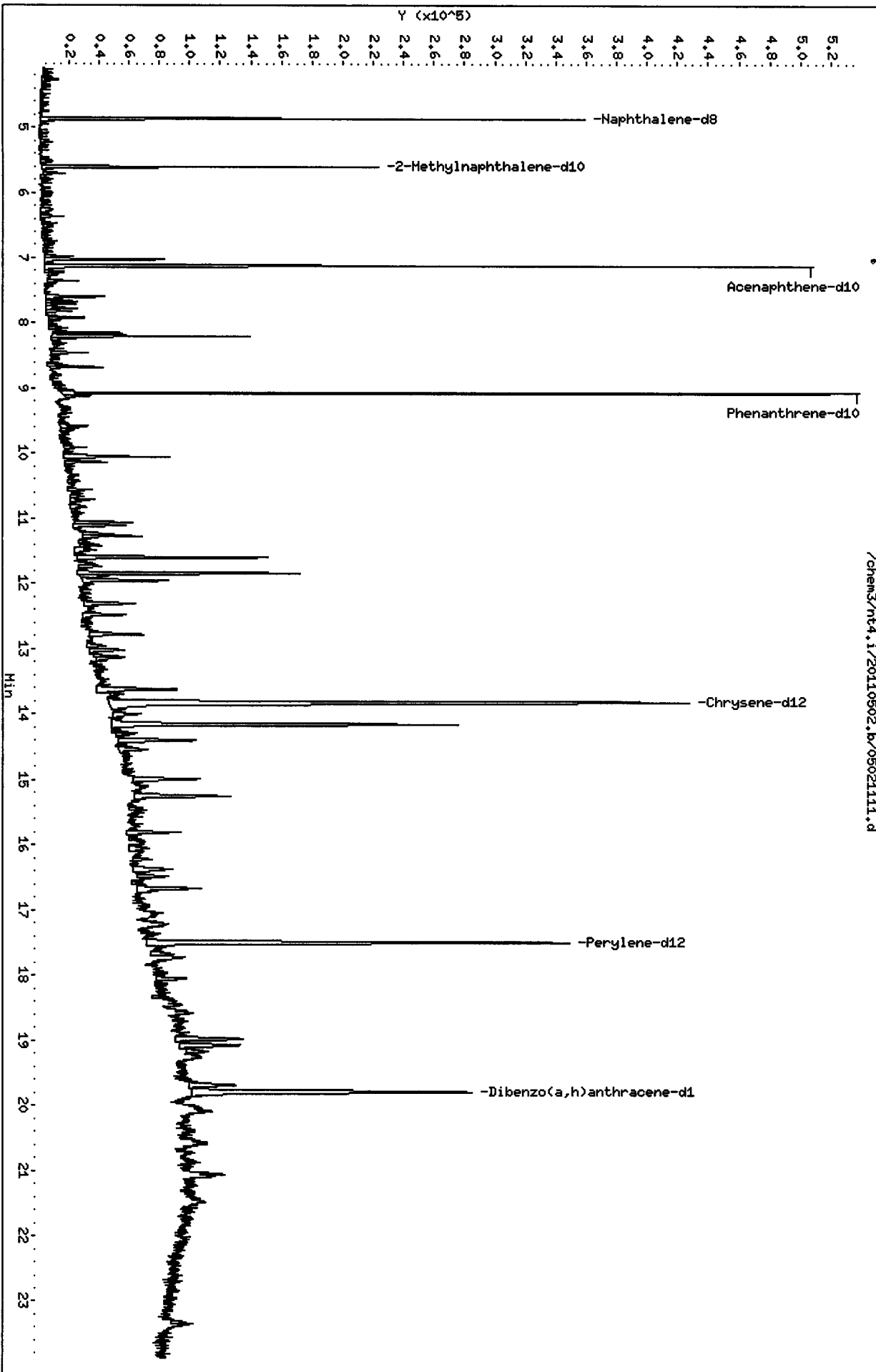
RECOVERY REPORT

Client Name: Floyd Snider
Sample Matrix: SOLID
Lab Smp Id: SS71K
Level: LOW
Data Type: MS DATA
SpikeList File: pnalcss.spk
Sublist File: pnax.sub
Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m
Misc Info: 11-8664

Client SDG: SS71
Fraction: SV
Client Smp ID: LL-SB3-1.5-2-041911
Operator: JZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED,	LIMITS
\$ 190 2-Methylnaphthalen	134.1	53.24	39.70	34-100
\$ 191 Dibenzo(a,h)anthra	134.1	95.75	71.40	10-117

/chem3/nt4.i/20110502.b/05021111.d



CO-ELUTION SUMMARY FOR FILE - 05021111.d

Lab ID: SS71K, Method: SIMPNA0421.m, Instrument: nt4.i, Date: 02-MAY-2011

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatle Report SW846 Method 8270D

Data file : /chem3/nt4.i/20110502.b/05021112.d
 Lab Smp Id: SS71L Client Smp ID: LL-SB3-2-4-041911
 Inj Date : 02-MAY-2011 17:09
 Operator : JZ Inst ID: nt4.i
 Smp Info : SS71L
 Misc Info : 11-8665
 Comment : 1ul Injection
 Method : /chem3/nt4.i/20110502.b/SIMPNA0421.m
 Meth Date : 02-May-2011 19:51 jianqing Quant Type: ISTD
 Cal Date : 21-APR-2011 22:25 Cal File: 04211107.d
 Als bottle: 12
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnax.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Vt / (Ws * (100 - M) / 100) * CpndVariable

D 05/02/11

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	12.26000	Weight of sample extracted (g)
M	11.10000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/mL)	FINAL (ug/kg)	
* 27 Naphthalene-d8	136	4.870	4.881	(1.000)	257926	2.00000		
28 Naphthalene	128	Compound Not Detected.						
\$ 190 2-Methylnaphthalene-d10	152	5.611	5.623	(1.152)	110715	1.53576	70.45	
32 2-Methylnaphthalene	141	Compound Not Detected.						
105 1-methylnaphthalene	141	Compound Not Detected.						
40 Acenaphthylene	152	Compound Not Detected.						
* 42 Acenaphthene-d10	164	7.125	7.137	(1.000)	151824	2.00000		
44 Acenaphthene	153	Compound Not Detected.						
46 Dibenzofuran	168	Compound Not Detected.						
49 Fluorene	166	Compound Not Detected.						
* 59 Phenanthrene-d10	188	9.074	9.083	(1.000)	257714	2.00000		
60 Phenanthrene	178	Compound Not Detected.						
61 Anthracene	178	Compound Not Detected.						
64 Fluoranthene	202	Compound Not Detected.						
65 Pyrene	202	Compound Not Detected.						

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/kg)
68 Benzo(a)anthracene	228				Compound Not Detected.		
* 69 Chrysene-d12	240	13.819	13.834	(1.000)	262559	2.00000	
71 Chrysene	228				Compound Not Detected.		
74 Benzo(b)fluoranthene	252				Compound Not Detected.		
75 Benzo(k)fluoranthene	252				Compound Not Detected.		
188 Benzo(j)fluoranthene	252				Compound Not Detected.		
76 Benzo(a)pyrene	252				Compound Not Detected.		
* 77 Perylene-d12	264	17.509	17.521	(1.000)	229636	2.00000	
78 Indeno(1,2,3-cd)pyrene	276				Compound Not Detected.		
\$ 191 Dibenzo(a,h)anthracene-d14	292	19.796	19.821	(1.131)	197594	2.07999	95.42
79 Dibenzo(a,h)anthracene	278				Compound Not Detected.		
80 Benzo(g,h,i)perylene	276				Compound Not Detected.		
99 Perylene	252				Compound Not Detected.		

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt4.i	Calibration Date: 02-MAY-2011
Lab File ID: 05021112.d	Calibration Time: 12:06
Lab Smp Id: SS71L	Client Smp ID: LL-SB3-2-4-04191
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Soil
Operator: JZ	
Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m	
Misc Info: 11-8665	

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	276036	138018	552072	257926	-6.56
42 Acenaphthene-d10	158527	79264	317054	151824	-4.23
59 Phenanthrene-d10	277528	138764	555056	257714	-7.14
69 Chrysene-d12	304115	152058	608230	262559	-13.66
77 Perylene-d12	257833	128916	515666	229636	-10.94

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	4.88	4.38	5.38	4.87	-0.24
42 Acenaphthene-d10	7.14	6.64	7.64	7.12	-0.17
59 Phenanthrene-d10	9.08	8.58	9.58	9.07	-0.10
69 Chrysene-d12	13.83	13.33	14.33	13.82	-0.11
77 Perylene-d12	17.52	17.02	18.02	17.51	-0.07

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

Analytical Resources, Inc.

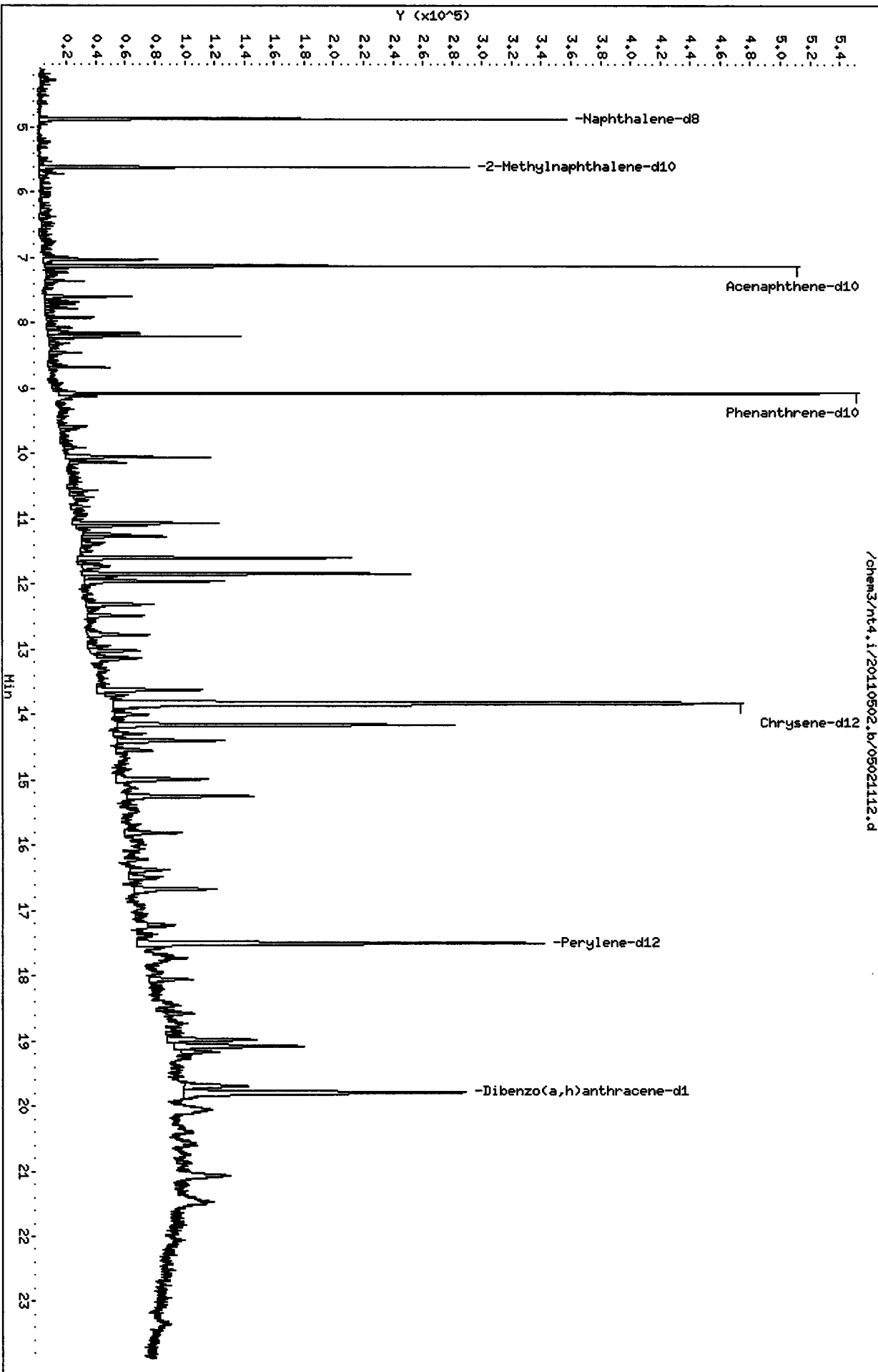
RECOVERY REPORT

Client Name: Floyd Snider
Sample Matrix: SOLID
Lab Smp Id: SS71L
Level: LOW
Data Type: MS DATA
SpikeList File: pnalcss.spk
Sublist File: pnax.sub
Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m
Misc Info: 11-8665

Client SDG: SS71
Fraction: SV
Client Smp ID: LL-SB3-2-4-041911
Operator: JZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 190 2-Methylnaphthalen	137.6	70.45	51.19	34-100
\$ 191 Dibenzo(a,h)anthra	137.6	95.42	69.33	10-117

/chem3/nt4.i/20110502.b/05021112.d



CO-ELUTION SUMMARY FOR FILE - 05021112.d

Lab ID: SS71L, Method: SIMPNA0421.m, Instrument: nt4.i, Date: 02-MAY-2011

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

SS71 : 00940

Analytical Resources, Inc.

Semivolatle Report SW846 Method 8270D

Data file : /chem3/nt4.i/20110502.b/05021113.d
 Lab Smp Id: SS71M Client Smp ID: LL-SB2-0-0.5-041911
 Inj Date : 02-MAY-2011 17:36
 Operator : JZ Inst ID: nt4.i
 Smp Info : SS71M
 Misc Info : 11-8666
 Comment : 1ul Injection
 Method : /chem3/nt4.i/20110502.b/SIMPNA0421.m
 Meth Date : 02-May-2011 19:51 jianqing Quant Type: ISTD
 Cal Date : 21-APR-2011 22:25 Cal File: 04211107.d
 Als bottle: 13
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnax.sub
 Target Version: 3.50

Handwritten: 05/02/11

Concentration Formula: $Amt * DF * Vt / (Ws * (100 - M) / 100) * CpndVariable$

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	12.26000	Weight of sample extracted (g)
M	12.80000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/mL)	FINAL (ug/kg)	
* 27 Naphthalene-d8	136	4.873	4.881	(1.000)	258494	2.00000		
28 Naphthalene	128	Compound Not Detected.						
\$ 190 2-Methylnaphthalene-d10	152	5.611	5.623	(1.151)	116055	1.60629	75.13	
32 2-Methylnaphthalene	141	Compound Not Detected.						
105 1-methylnaphthalene	141	Compound Not Detected.						
40 Acenaphthylene	152	Compound Not Detected.						
* 42 Acenaphthene-d10	164	7.125	7.137	(1.000)	153505	2.00000		
44 Acenaphthene	153	Compound Not Detected.						
46 Dibenzofuran	168	Compound Not Detected.						
49 Fluorene	166	Compound Not Detected.						
* 59 Phenanthrene-d10	188	9.075	9.083	(1.000)	252652	2.00000		
60 Phenanthrene	178	9.106	9.118	(1.003)	9718	0.07860	3.676	
61 Anthracene	178	Compound Not Detected.						
64 Fluoranthene	202	10.813	10.824	(1.192)	19094	0.13981	6.539	
65 Pyrene	202	11.289	11.301	(0.817)	21549	0.16237	7.594	

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)	
=====	====	==	=====	=====	=====	=====	=====	
68 Benzo(a)anthracene	228	13.702	13.717	(0.992)	9333	0.07581	3.546	
* 69 Chrysene-d12	240	13.819	13.834	(1.000)	263940	2.00000		
71 Chrysene	228	13.882	13.903	(1.005)	20003	0.16768	7.842	
74 Benzo(b)fluoranthene	252	16.336	16.354	(0.933)	18052	0.14744	6.896	
75 Benzo(k)fluoranthene	252	16.393	16.411	(0.936)	8544	0.06781	3.171	
188 Benzo(j)fluoranthene	252	16.475	16.483	(0.941)	8120	0.06571	3.073	
76 Benzo(a)pyrene	252	17.292	17.316	(0.988)	10263	0.09368	4.381	
* 77 Perylene-d12	264	17.509	17.521	(1.000)	225665	2.00000		
78 Indeno(1,2,3-cd)pyrene	276	19.869	19.893	(1.135)	10675	0.08283	3.874	
\$ 191 Dibenzo(a,h)anthracene-d14	292	19.800	19.821	(1.131)	202029	2.16409	101.2	
79 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
80 Benzo(g,h,i)perylene	276	20.746	20.767	(1.185)	17077	0.15513	7.255	
99 Perylene	252	17.573	17.587	(1.004)	14504	0.15612	7.302	

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt4.i	Calibration Date: 02-MAY-2011
Lab File ID: 05021113.d	Calibration Time: 12:06
Lab Smp Id: SS71M	Client Smp ID: LL-SB2-0-0.5-041
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Soil
Operator: JZ	
Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m	
Misc Info: 11-8666	

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	276036	138018	552072	258494	-6.35
42 Acenaphthene-d10	158527	79264	317054	153505	-3.17
59 Phenanthrene-d10	277528	138764	555056	252652	-8.96
69 Chrysene-d12	304115	152058	608230	263940	-13.21
77 Perylene-d12	257833	128916	515666	225665	-12.48

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	4.88	4.38	5.38	4.87	-0.18
42 Acenaphthene-d10	7.14	6.64	7.64	7.13	-0.16
59 Phenanthrene-d10	9.08	8.58	9.58	9.07	-0.09
69 Chrysene-d12	13.83	13.33	14.33	13.82	-0.11
77 Perylene-d12	17.52	17.02	18.02	17.51	-0.07

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

Analytical Resources, Inc.

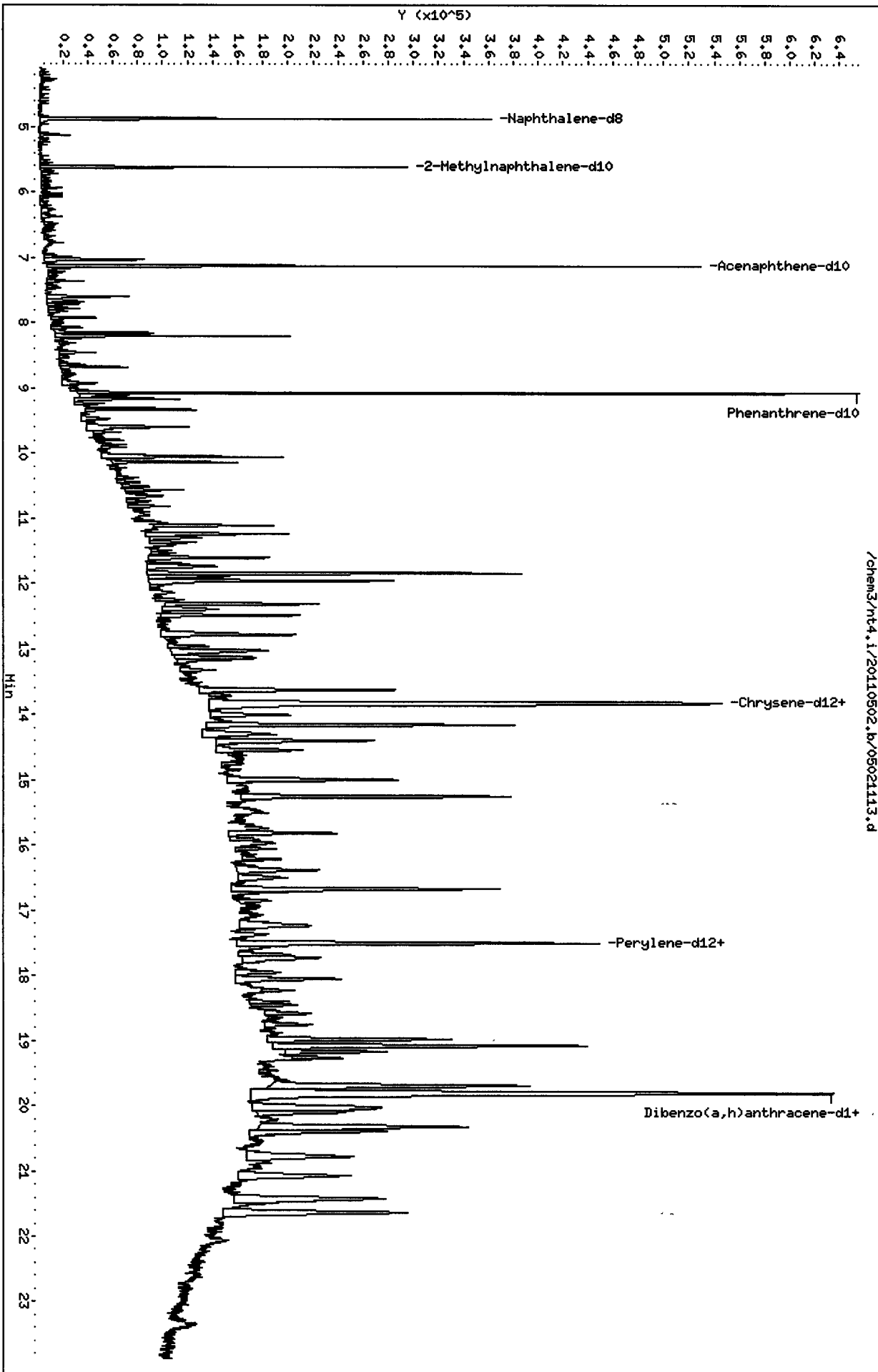
RECOVERY REPORT

Client Name: Floyd Snider
Sample Matrix: SOLID
Lab Smp Id: SS71M
Level: LOW
Data Type: MS DATA
SpikeList File: pnalcss.spk
Sublist File: pnax.sub
Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m
Misc Info: 11-8666

Client SDG: SS71
Fraction: SV
Client Smp ID: LL-SB2-0-0.5-041911
Operator: JZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 190 2-Methylnaphthalen	140.3	75.13	53.54	34-100
\$ 191 Dibenzo(a,h)anthra	140.3	101.2	72.14	10-117

/chem3/nt4.i/20110502.b/05021113.d



Date : 02-MAY-2011 17:36

Client ID: LL-SB2-0-0.5-041911

Instrument: nt4.i

Sample Info: SS71M

Volume Injected (uL): 1.0

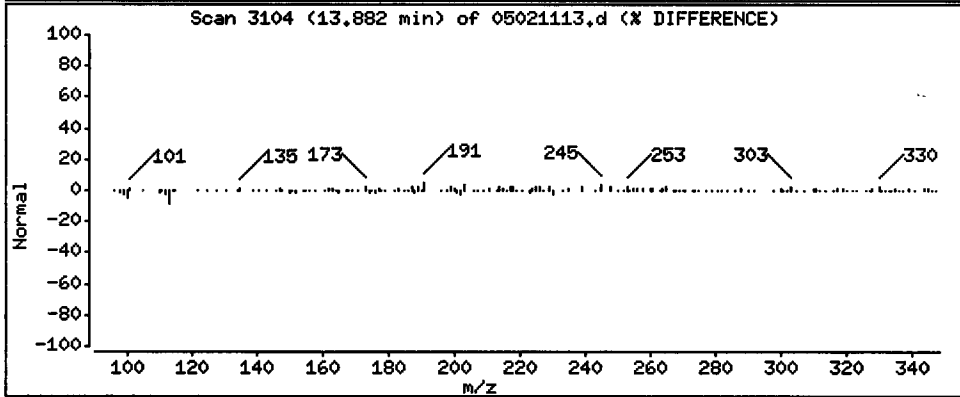
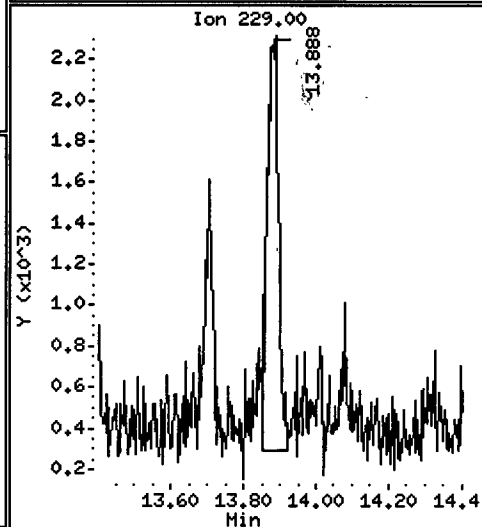
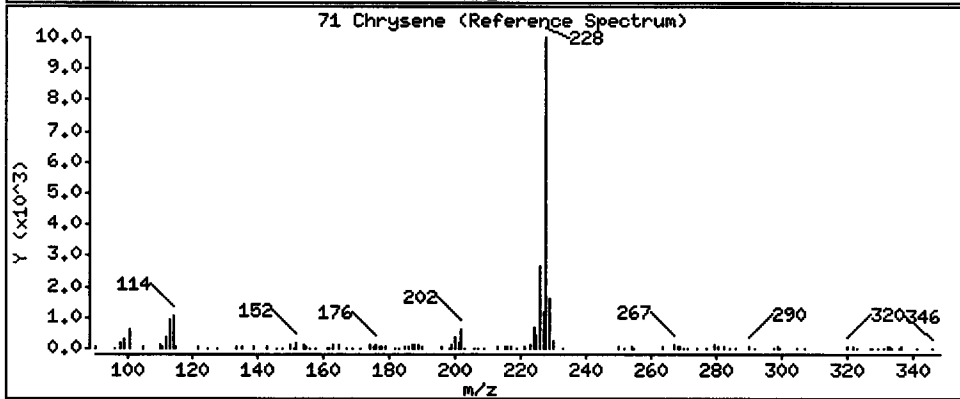
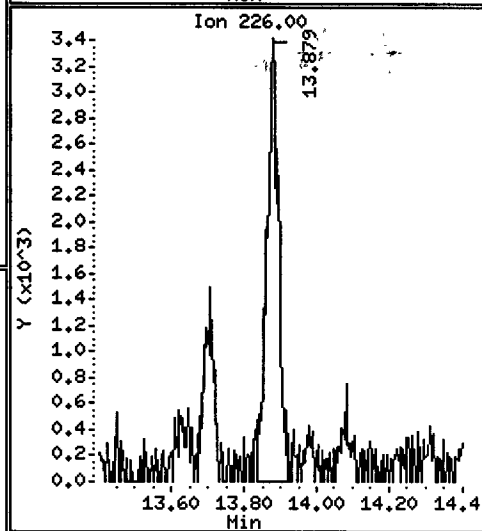
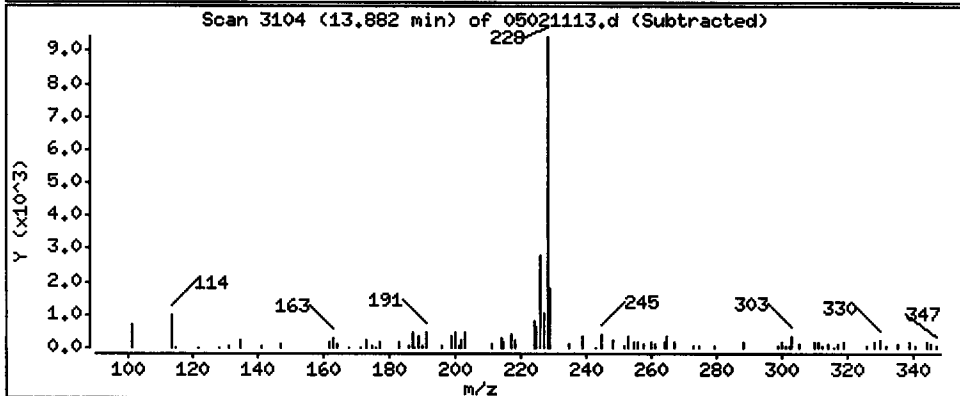
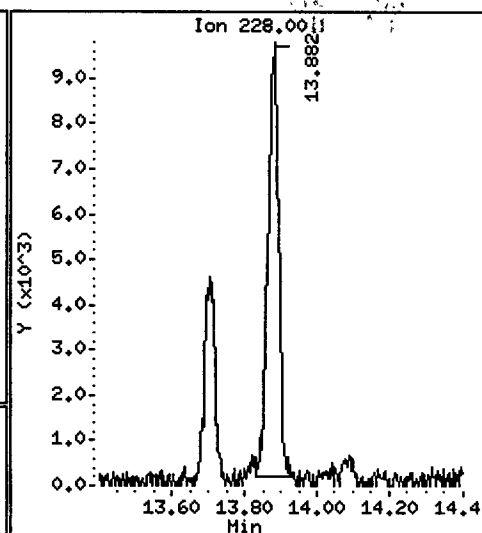
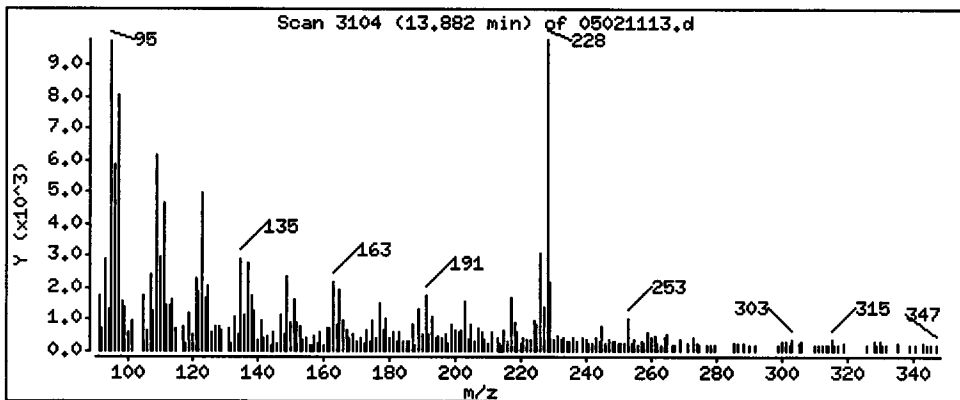
Operator: JZ

Column phase: ZB35

Column diameter: 0.32

71 Chrysene

Concentration: 7.842 ug/kg



Date : 02-MAY-2011 17:36

Client ID: LL-SB2-0-0,5-041911

Instrument: nt4.i

Sample Info: SS71M

Volume Injected (uL): 1.0

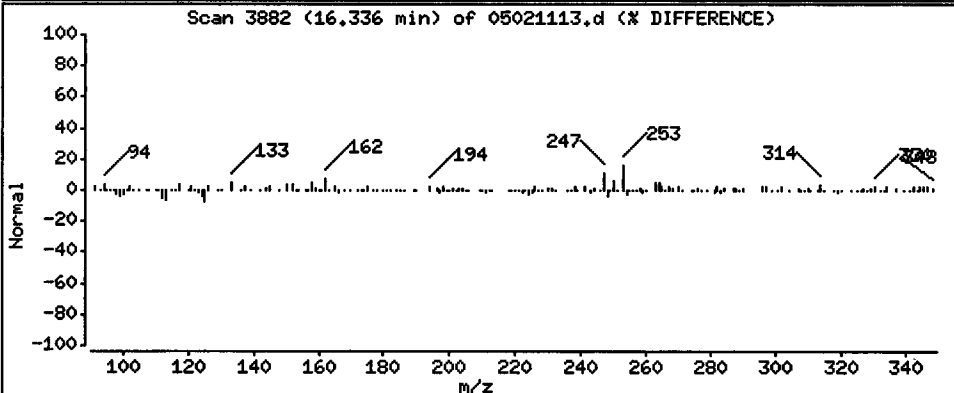
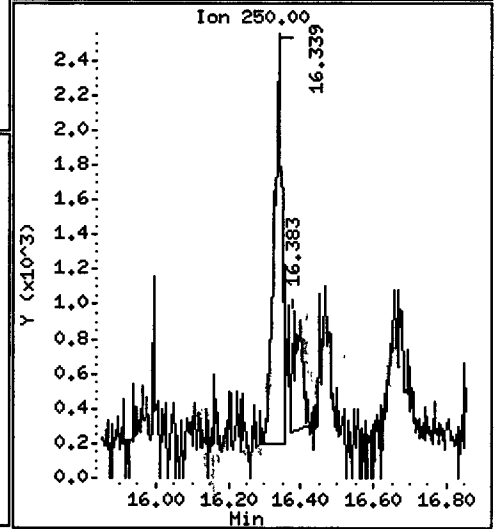
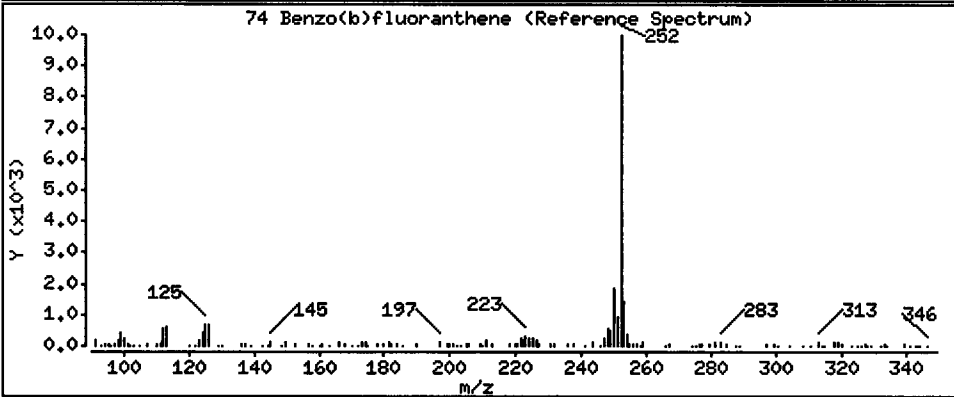
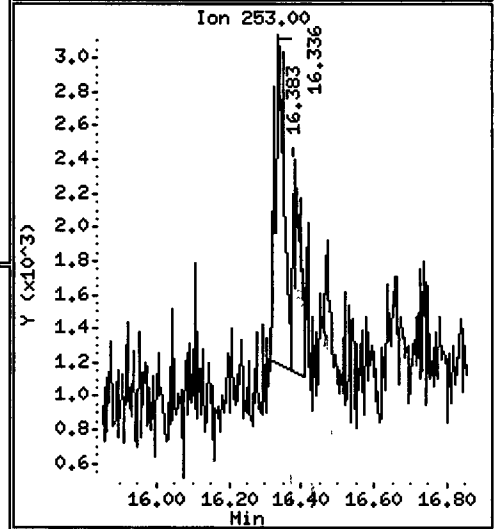
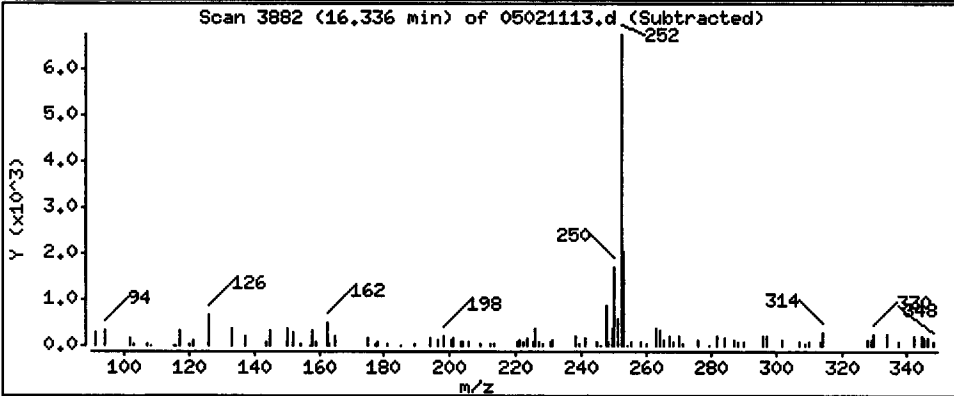
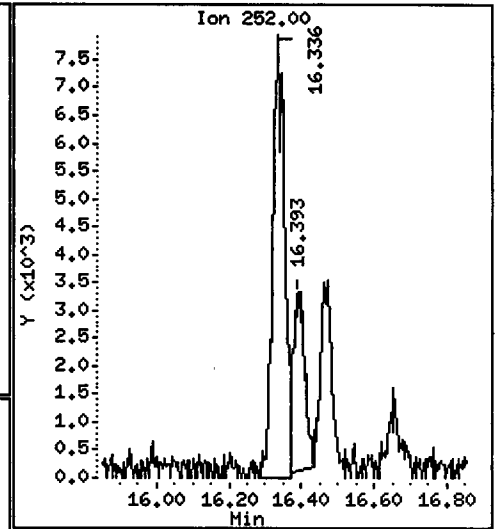
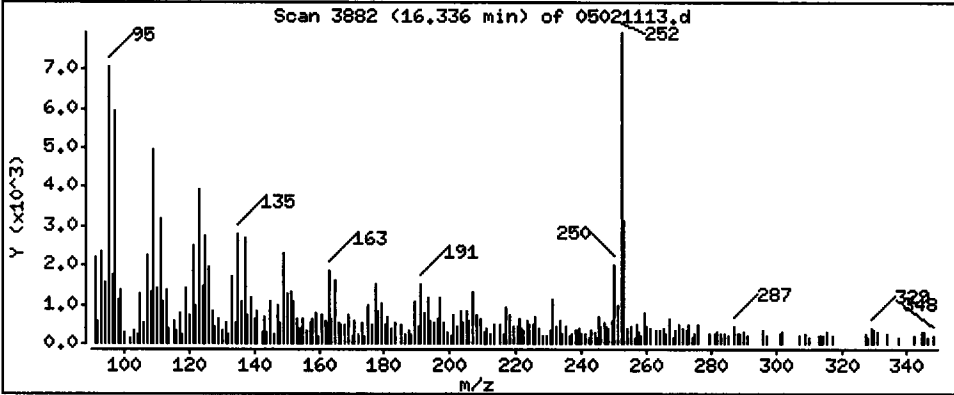
Operator: JZ

Column phase: ZB35

Column diameter: 0.32

74 Benzo(b)fluoranthene

Concentration: 6.896 ug/kg



Date : 02-MAY-2011 17:36

Client ID: LL-SB2-0-0,5-041911

Instrument: nt4.i

Sample Info: SS71M

Volume Injected (uL): 1.0

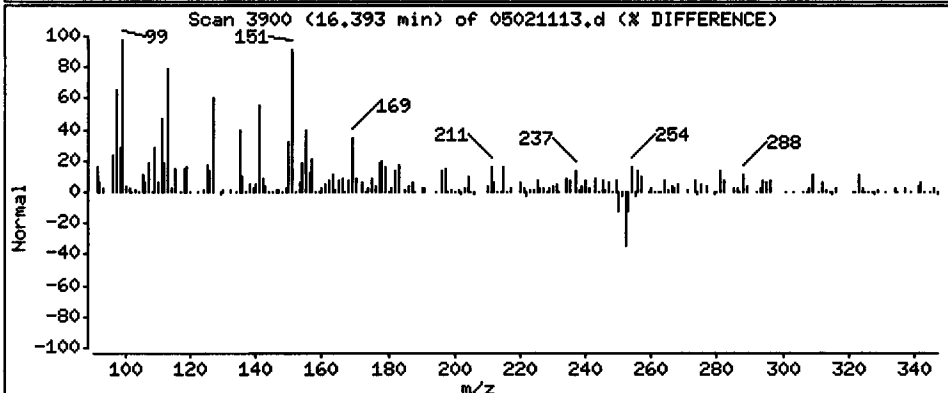
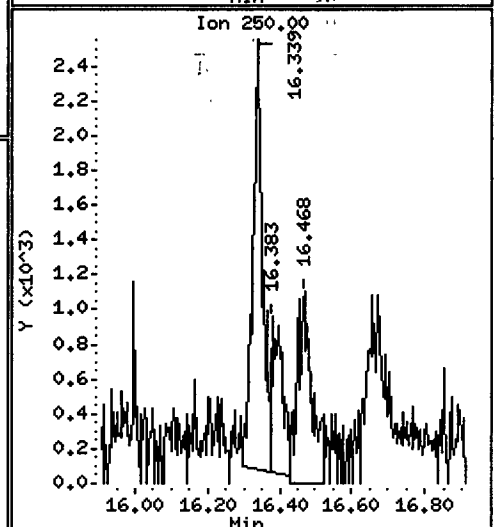
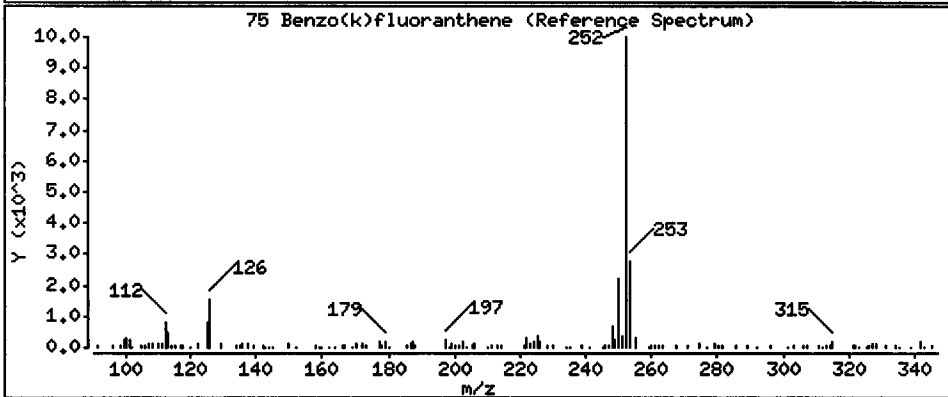
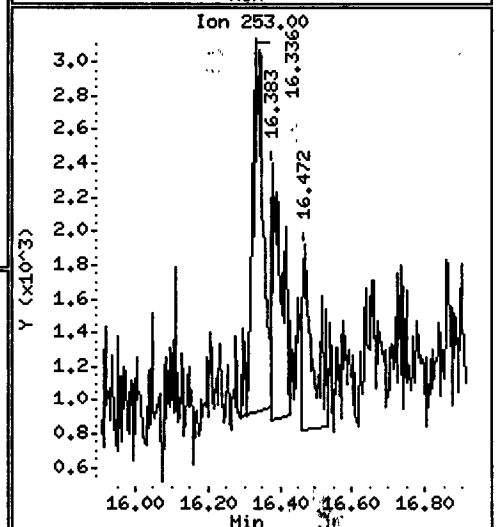
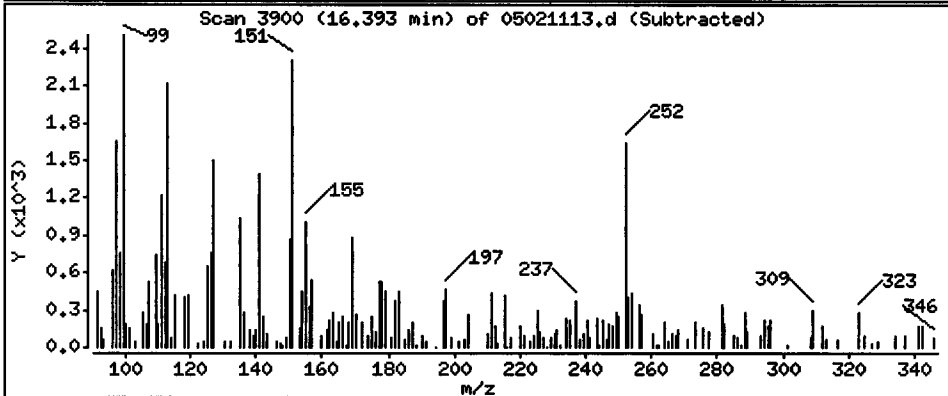
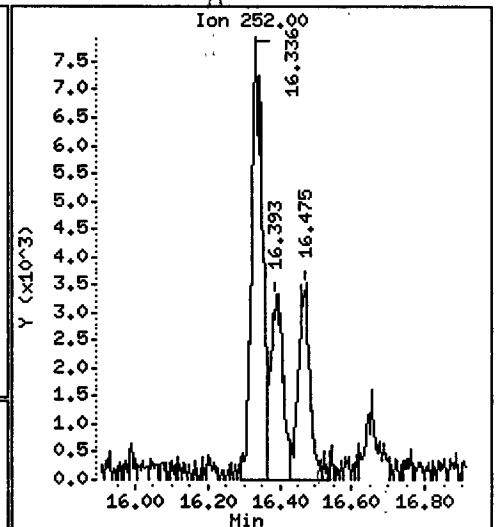
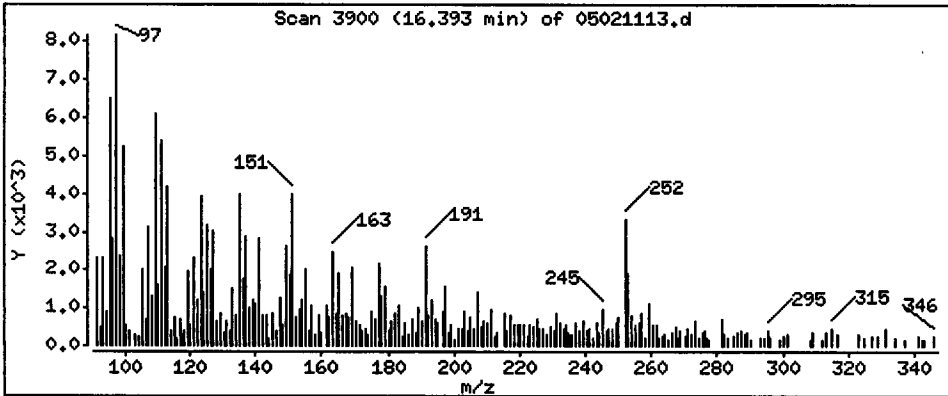
Operator: JZ

Column phase: ZB35

Column diameter: 0.32

75 Benzo(k)fluoranthene

Concentration: 3.171 ug/kg



Date : 02-MAY-2011 17:36

Client ID: LL-SB2-0-0,5-041911

Instrument: nt4.i

Sample Info: SS71M

Volume Injected (uL): 1.0

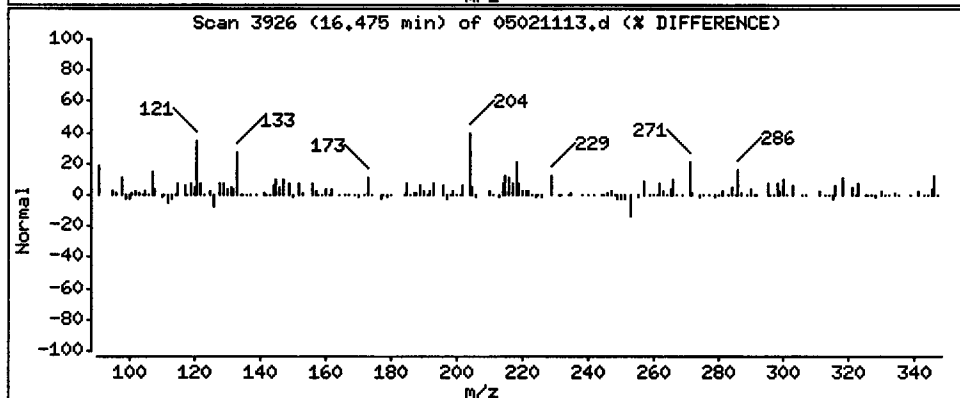
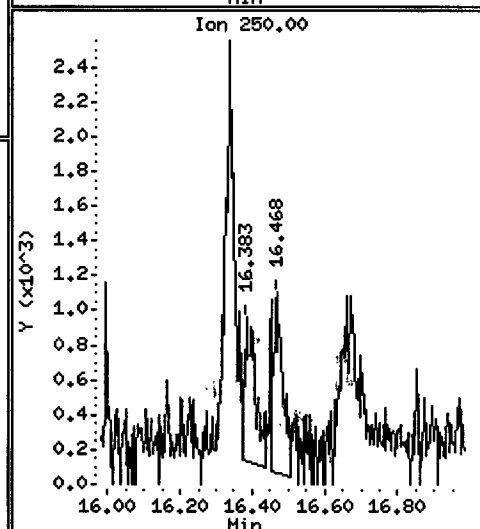
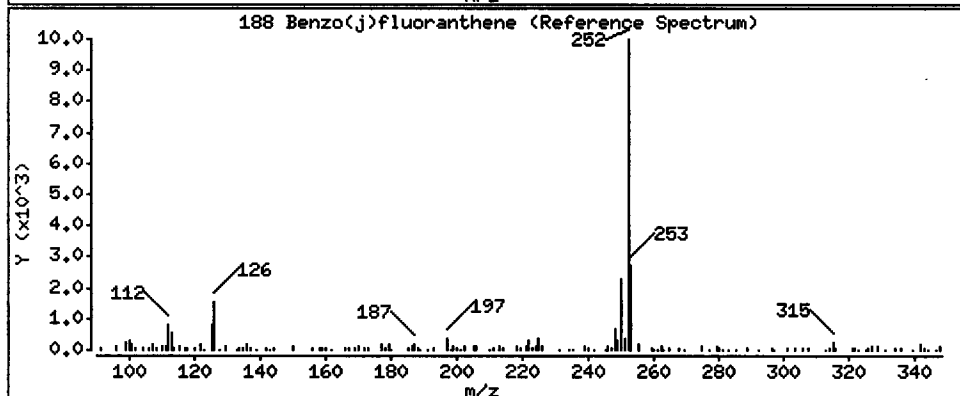
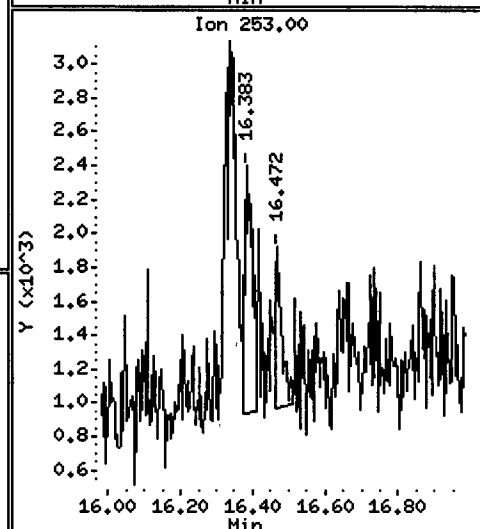
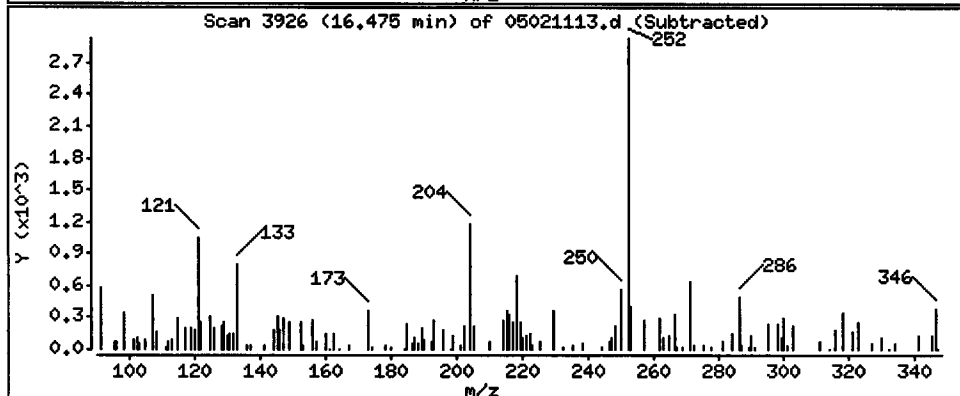
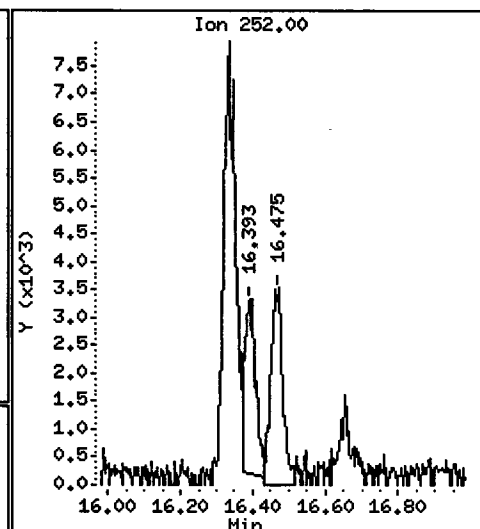
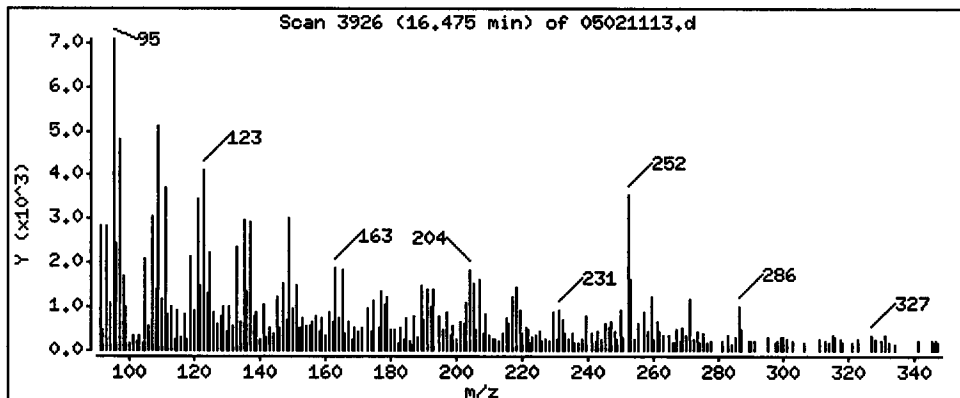
Operator: JZ

Column phase: ZB35

Column diameter: 0.32

188 Benzo(j)fluoranthene

Concentration: 3.073 ug/kg



CO-ELUTION SUMMARY FOR FILE - 05021113.d

Lab ID: SS71M, Method: SIMPNA0421.m, Instrument: nt4.i, Date: 02-MAY-2011

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatle Report SW846 Method 8270D

Data file : /chem3/nt4.i/20110502.b/05021114.d
 Lab Smp Id: SS71N Client Smp ID: LL-SB2-1.5-2-041911
 Inj Date : 02-MAY-2011 18:04
 Operator : JZ Inst ID: nt4.i
 Smp Info : SS71N
 Misc Info : 11-8667
 Comment : 1ul Injection
 Method : /chem3/nt4.i/20110502.b/SIMPNA0421.m
 Meth Date : 02-May-2011 19:51 jianqing Quant Type: ISTD
 Cal Date : 21-APR-2011 22:25 Cal File: 04211107.d
 Als bottle: 14
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnax.sub
 Target Version: 3.50

JZ 05/02/11

Concentration Formula: $Amt * DF * Vt / (Ws * (100 - M) / 100) * CpndVariable$

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	11.20000	Weight of sample extracted (g)
M	8.40000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/mL)	FINAL (ug/kg)	
* 27 Naphthalene-d8	136	4.869	4.881	(1.000)	252693	2.00000		
28 Naphthalene	128	Compound Not Detected.						
\$ 190 2-Methylnaphthalene-d10	152	5.611	5.623	(1.152)	112241	1.58917	77.45	
32 2-Methylnaphthalene	141	Compound Not Detected.						
105 1-methylnaphthalene	141	Compound Not Detected.						
40 Acenaphthylene	152	Compound Not Detected.						
* 42 Acenaphthene-d10	164	7.125	7.137	(1.000)	152200	2.00000		
44 Acenaphthene	153	Compound Not Detected.						
46 Dibenzofuran	168	Compound Not Detected.						
49 Fluorene	166	Compound Not Detected.						
* 59 Phenanthrene-d10	188	9.074	9.083	(1.000)	255533	2.00000		
60 Phenanthrene	178	Compound Not Detected.						
61 Anthracene	178	Compound Not Detected.						
64 Fluoranthene	202	Compound Not Detected.						
65 Pyrene	202	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/kg)
=====	=====	==	=====	=====	=====	=====	=====
68 Benzo (a) anthracene	228				Compound Not Detected.		
* 69 Chrysene-d12	240	13.815	13.834	(1.000)	269043	2.00000	
71 Chrysene	228				Compound Not Detected.		
74 Benzo (b) fluoranthene	252				Compound Not Detected.		
75 Benzo (k) fluoranthene	252				Compound Not Detected.		
188 Benzo (j) fluoranthene	252				Compound Not Detected.		
76 Benzo (a) pyrene	252				Compound Not Detected.		
* 77 Perylene-d12	264	17.506	17.521	(1.000)	227743	2.00000	
78 Indeno (1,2,3-cd) pyrene	276				Compound Not Detected.		
\$ 191 Dibenzo (a,h) anthracene-d14	292	19.799	19.821	(1.131)	206052	2.18704	106.6
79 Dibenzo (a,h) anthracene	278				Compound Not Detected.		
80 Benzo (g,h,i) perylene	276				Compound Not Detected.		
99 Perylene	252				Compound Not Detected.		

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt4.i	Calibration Date: 02-MAY-2011
Lab File ID: 05021114.d	Calibration Time: 12:06
Lab Smp Id: SS71N	Client Smp ID: LL-SB2-1.5-2-041
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Soil
Operator: JZ	
Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m	
Misc Info: 11-8667	

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	276036	138018	552072	252693	-8.46
42 Acenaphthene-d10	158527	79264	317054	152200	-3.99
59 Phenanthrene-d10	277528	138764	555056	255533	-7.93
69 Chrysene-d12	304115	152058	608230	269043	-11.53
77 Perylene-d12	257833	128916	515666	227743	-11.67

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	4.88	4.38	5.38	4.87	-0.25
42 Acenaphthene-d10	7.14	6.64	7.64	7.12	-0.17
59 Phenanthrene-d10	9.08	8.58	9.58	9.07	-0.10
69 Chrysene-d12	13.83	13.33	14.33	13.82	-0.13
77 Perylene-d12	17.52	17.02	18.02	17.51	-0.09

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

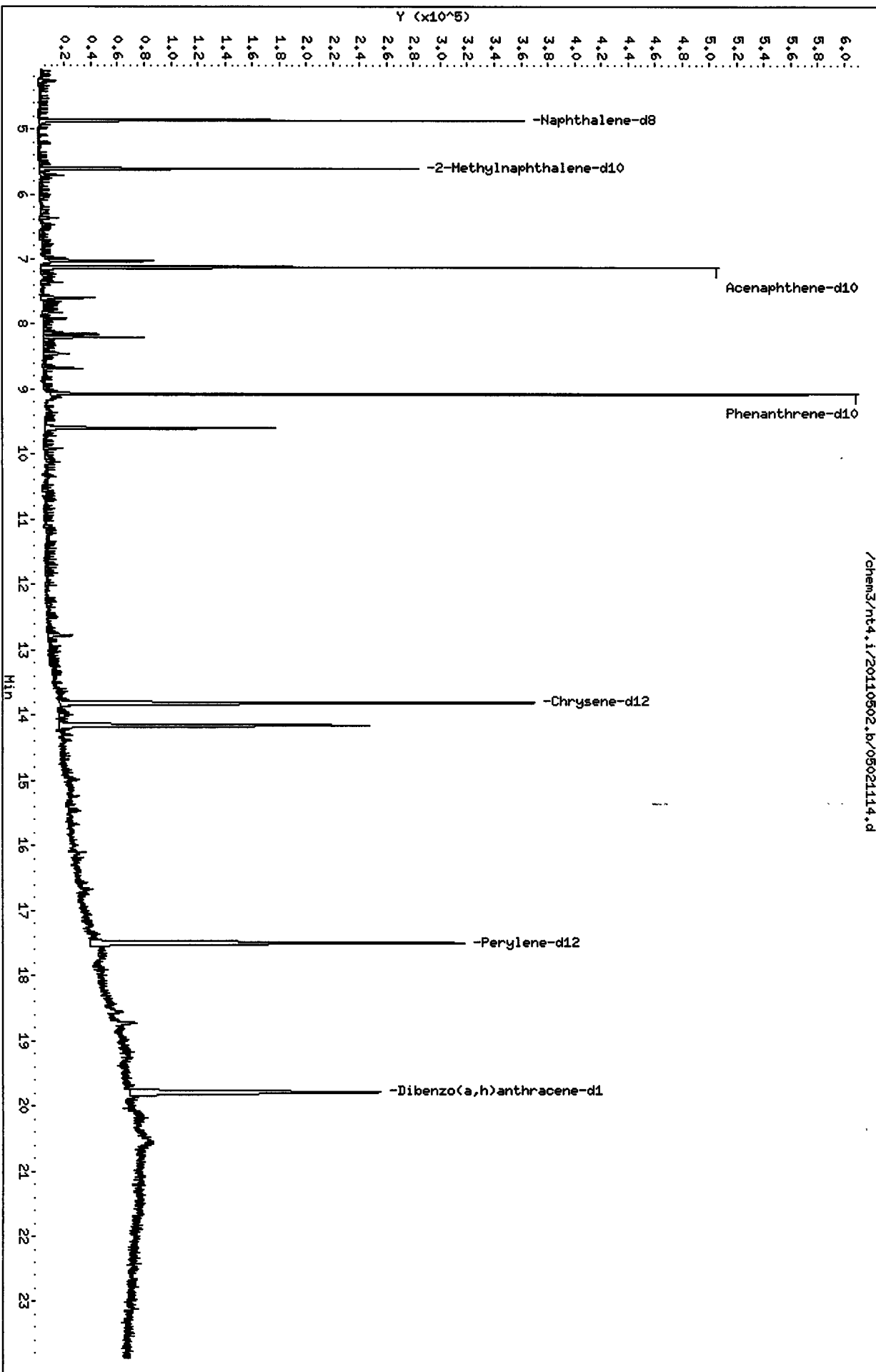
Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Sample Matrix: SOLID
Lab Smp Id: SS71N
Level: LOW
Data Type: MS DATA
SpikeList File: pnalcss.spk
Sublist File: pnax.sub
Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m
Misc Info: 11-8667

Client SDG: SS71
Fraction: SV
Client Smp ID: LL-SB2-1.5-2-041911
Operator: JZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 190 2-Methylnaphthalen	146.2	77.45	52.97	34-100
\$ 191 Dibenzo(a,h) anthra	146.2	106.6	72.90	10-117



CO-ELUTION SUMMARY FOR FILE - 05021114.d

Lab ID: SS71N, Method: SIMPNA0421.m, Instrument: nt4.i, Date: 02-MAY-2011

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatle Report SW846 Method 8270D

Data file : /chem3/nt4.i/20110502.b/05021115.d
 Lab Smp Id: SS710 Client Smp ID: LL-SB2-2-3.5-041911
 Inj Date : 02-MAY-2011 18:32
 Operator : JZ Inst ID: nt4.i
 Smp Info : SS710
 Misc Info : 11-8668
 Comment : 1ul Injection
 Method : /chem3/nt4.i/20110502.b/SIMPNA0421.m
 Meth Date : 02-May-2011 19:51 jianqing Quant Type: ISTD
 Cal Date : 21-APR-2011 22:25 Cal File: 04211107.d
 Als bottle: 15
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pmax.sub
 Target Version: 3.50

05/02/11

Concentration Formula: $Amt * DF * Vt / (Ws * (100 - M) / 100) * CpndVariable$

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	12.33000	Weight of sample extracted (g)
M	10.00000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/mL)	FINAL (ug/kg)	
* 27 Naphthalene-d8	136	4.870	4.881	(1.000)	257573	2.00000		
28 Naphthalene	128	Compound Not Detected.						
\$ 190 2-Methylnaphthalene-d10	152	5.611	5.623	(1.152)	119209	1.65586	74.61	
32 2-Methylnaphthalene	141	Compound Not Detected.						
105 1-methylnaphthalene	141	Compound Not Detected.						
40 Acenaphthylene	152	Compound Not Detected.						
* 42 Acenaphthene-d10	164	7.125	7.137	(1.000)	153518	2.00000		
44 Acenaphthene	153	Compound Not Detected.						
46 Dibenzofuran	168	Compound Not Detected.						
49 Fluorene	166	Compound Not Detected.						
* 59 Phenanthrene-d10	188	9.075	9.083	(1.000)	256039	2.00000		
60 Phenanthrene	178	Compound Not Detected.						
61 Anthracene	178	Compound Not Detected.						
64 Fluoranthene	202	Compound Not Detected.						
65 Pyrene	202	Compound Not Detected.						

Compounds	QUANT SIG		CONCENTRATIONS				
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)
=====	====	==	=====	=====	=====	=====	=====
68 Benzo (a) anthracene	228				Compound Not Detected.		
* 69 Chrysene-d12	240	13.819	13.834	(1.000)	277006	2.00000	
71 Chrysene	228				Compound Not Detected.		
74 Benzo (b) fluoranthene	252				Compound Not Detected.		
75 Benzo (k) fluoranthene	252				Compound Not Detected.		
188 Benzo (j) fluoranthene	252				Compound Not Detected.		
76 Benzo (a) pyrene	252				Compound Not Detected.		
* 77 Perylene-d12	264	17.503	17.521	(1.000)	229557	2.00000	
78 Indeno (1,2,3-cd) pyrene	276				Compound Not Detected.		
\$ 191 Dibenzo (a,h) anthracene-d14	292	19.796	19.821	(1.131)	211232	2.22432	100.2
79 Dibenzo (a,h) anthracene	278				Compound Not Detected.		
80 Benzo (g,h,i) perylene	276				Compound Not Detected.		
99 Perylene	252				Compound Not Detected.		

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt4.i	Calibration Date: 02-MAY-2011
Lab File ID: 05021115.d	Calibration Time: 12:06
Lab Smp Id: SS710	Client Smp ID: LL-SB2-2-3.5-041
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Soil
Operator: JZ	
Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m	
Misc Info: 11-8668	

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	276036	138018	552072	257573	-6.69
42 Acenaphthene-d10	158527	79264	317054	153518	-3.16
59 Phenanthrene-d10	277528	138764	555056	256039	-7.74
69 Chrysene-d12	304115	152058	608230	277006	-8.91
77 Perylene-d12	257833	128916	515666	229557	-10.97

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	4.88	4.38	5.38	4.87	-0.24
42 Acenaphthene-d10	7.14	6.64	7.64	7.13	-0.16
59 Phenanthrene-d10	9.08	8.58	9.58	9.07	-0.09
69 Chrysene-d12	13.83	13.33	14.33	13.82	-0.11
77 Perylene-d12	17.52	17.02	18.02	17.50	-0.10

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

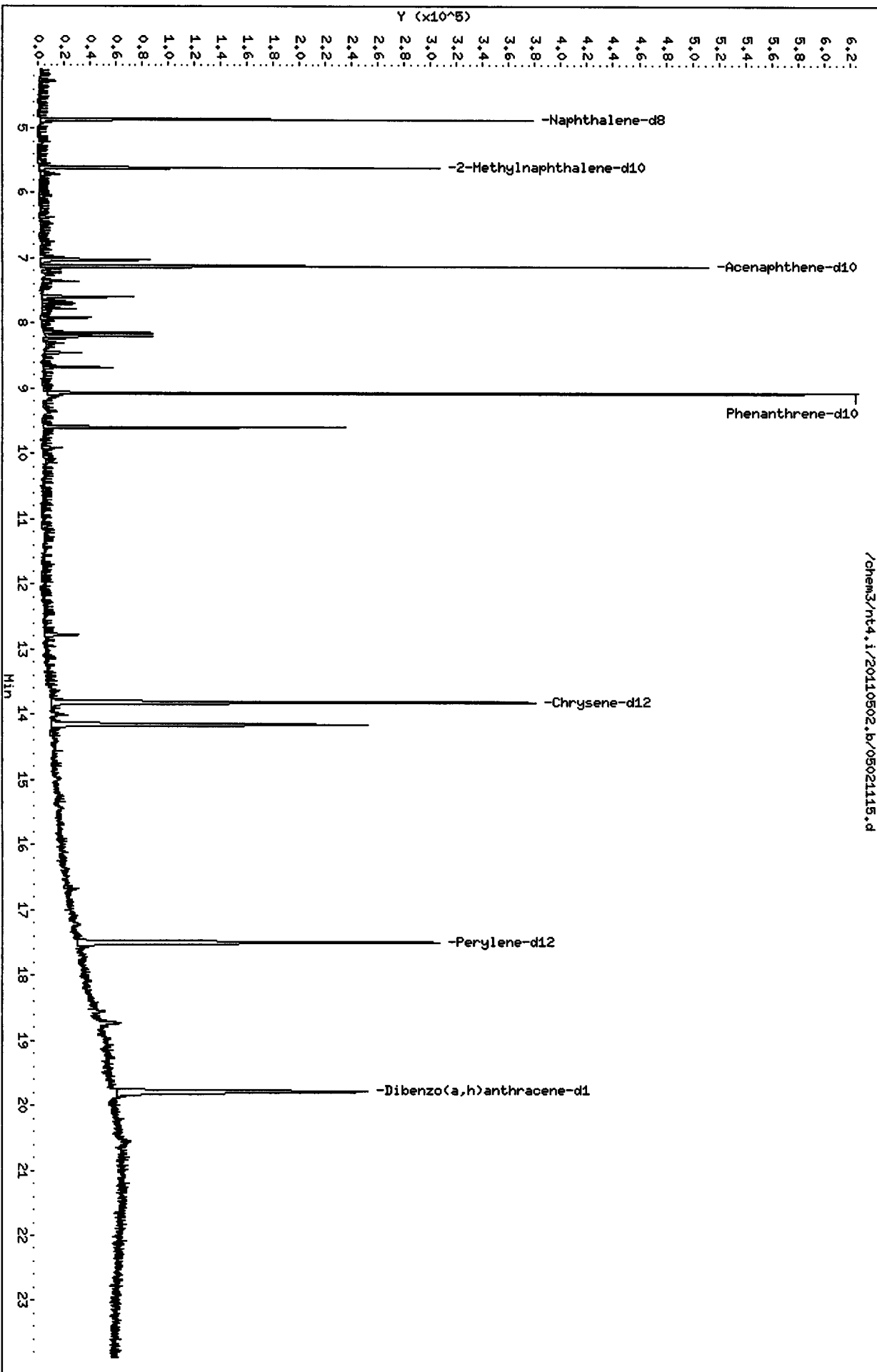
Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider	Client SDG: SS71
Sample Matrix: SOLID	Fraction: SV
Lab Smp Id: SS710	Client Smp ID: LL-SB2-2-3.5-041911
Level: LOW	Operator: JZ
Data Type: MS DATA	SampleType: SAMPLE
SpikeList File: pnalcss.spk	Quant Type: ISTD
Sublist File: pnax.sub	
Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m	
Misc Info: 11-8668	

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 190 2-Methylnaphthalen	135.2	74.61	55.20	34-100
\$ 191 Dibenzo(a,h) anthra	135.2	100.2	74.14	10-117

/chem3/nt4.i/20110502.b/05021115.d



CO-ELUTION SUMMARY FOR FILE - 05021115.d

Lab ID: SS710, Method: SIMPNA0421.m, Instrument: nt4.i, Date: 02-MAY-2011

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

SS71 . 00962

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20110502.b/05021116.d
 Lab Smp Id: SS71P Client Smp ID: LL-SB1-0-0.5-041911
 Inj Date : 02-MAY-2011 18:59
 Operator : JZ Inst ID: nt4.i
 Smp Info : SS71P
 Misc Info : 11-8669
 Comment : 1ul Injection
 Method : /chem3/nt4.i/20110502.b/SIMPNA0421.m
 Meth Date : 02-May-2011 19:51 jianqing Quant Type: ISTD
 Cal Date : 21-APR-2011 22:25 Cal File: 04211107.d
 Als bottle: 16
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pmax.sub
 Target Version: 3.50

Concentration Formula: Amt * DF * Vt / (Ws * (100 - M) / 100) * CpndVariable *DF 02/02/11*

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	11.48000	Weight of sample extracted (g)
M	7.60000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS					
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)
* 27 Naphthalene-d8	136	4.869	4.881	(1.000)	255712	2.00000	
28 Naphthalene	128	Compound Not Detected.					
\$ 190 2-Methylnaphthalene-d10	152	5.610	5.623	(1.152)	101589	1.42137	67.00
32 2-Methylnaphthalene	141	Compound Not Detected.					
105 1-methylnaphthalene	141	Compound Not Detected.					
40 Acenaphthylene	152	Compound Not Detected.					
* 42 Acenaphthene-d10	164	7.127	7.137	(1.000)	153567	2.00000	
44 Acenaphthene	153	Compound Not Detected.					
46 Dibenzofuran	168	Compound Not Detected.					
49 Fluorene	166	Compound Not Detected.					
* 59 Phenanthrene-d10	188	9.074	9.083	(1.000)	259503	2.00000	
60 Phenanthrene	178	Compound Not Detected.					
61 Anthracene	178	Compound Not Detected.					
64 Fluoranthene	202	Compound Not Detected.					
65 Pyrene	202	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/kg)
=====	=====	==	=====	=====	=====	=====	=====
68 Benzo (a) anthracene	228				Compound Not Detected.		
* 69 Chrysene-d12	240	13.818	13.834	(1.000)	270905	2.00000	
71 Chrysene	228				Compound Not Detected.		
74 Benzo (b) fluoranthene	252				Compound Not Detected.		
75 Benzo (k) fluoranthene	252				Compound Not Detected.		
188 Benzo (j) fluoranthene	252				Compound Not Detected.		
76 Benzo (a) pyrene	252				Compound Not Detected.		
* 77 Perylene-d12	264	17.505	17.521	(1.000)	223897	2.00000	
78 Indeno (1,2,3-cd) pyrene	276				Compound Not Detected.		
\$ 191 Dibenzo (a,h) anthracene-d14	292	19.799	19.821	(1.131)	207908	2.24465	105.8
79 Dibenzo (a,h) anthracene	278				Compound Not Detected.		
80 Benzo (g,h,i) perylene	276				Compound Not Detected.		
99 Perylene	252				Compound Not Detected.		

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt4.i	Calibration Date: 02-MAY-2011
Lab File ID: 05021116.d	Calibration Time: 12:06
Lab Smp Id: SS71P	Client Smp ID: LL-SB1-0-0.5-041
Analysis Type: SV	Level: LOW
Quant Type: ISTD	Sample Type: Soil
Operator: JZ	
Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m	
Misc Info: 11-8669	

Test Mode: Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	276036	138018	552072	255712	-7.36
42 Acenaphthene-d10	158527	79264	317054	153567	-3.13
59 Phenanthrene-d10	277528	138764	555056	259503	-6.49
69 Chrysene-d12	304115	152058	608230	270905	-10.92
77 Perylene-d12	257833	128916	515666	223897	-13.16

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	4.88	4.38	5.38	4.87	-0.26
42 Acenaphthene-d10	7.14	6.64	7.64	7.13	-0.13
59 Phenanthrene-d10	9.08	8.58	9.58	9.07	-0.10
69 Chrysene-d12	13.83	13.33	14.33	13.82	-0.11
77 Perylene-d12	17.52	17.02	18.02	17.51	-0.09

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

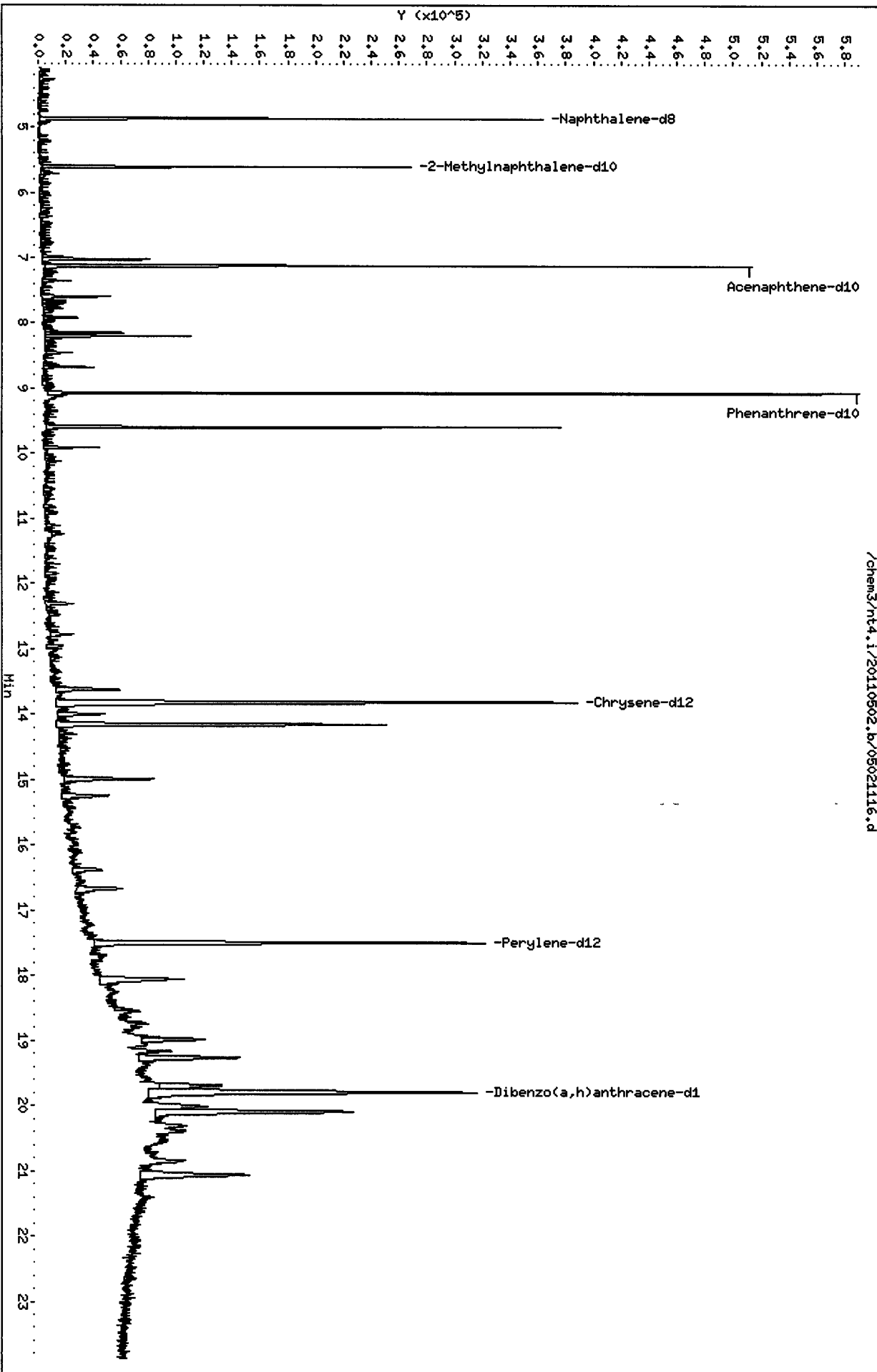
Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Sample Matrix: SOLID
Lab Smp Id: SS71P
Level: LOW
Data Type: MS DATA
SpikeList File: pnalcss.spk
Sublist File: pmax.sub
Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m
Misc Info: 11-8669

Client SDG: SS71
Fraction: SV
Client Smp ID: LL-SB1-0-0.5-041911
Operator: JZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 190 2-Methylnaphthalen	141.4	67.00	47.38	34-100
\$ 191 Dibenzo(a,h)anthra	141.4	105.8	74.82	10-117



CO-ELUTION SUMMARY FOR FILE - 05021116.d

Lab ID: SS71P, Method: SIMPNA0421.m, Instrument: nt4.i, Date: 02-MAY-2011

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

633

SS71 : 00968

Analytical Resources, Inc.

Semivolatle Report SW846 Method 8270D

Data file : /chem3/nt4.i/20110502.b/05021117.d
 Lab Smp Id: SS71Q Client Smp ID: LL-SB1-0-0.5-041911
 Inj Date : 02-MAY-2011 19:27
 Operator : JZ Inst ID: nt4.i
 Smp Info : SS71Q
 Misc Info : 11-8670
 Comment : 1ul Injection
 Method : /chem3/nt4.i/20110502.b/SIMPNA0421.m
 Meth Date : 02-May-2011 19:51 jianqing Quant Type: ISTD
 Cal Date : 21-APR-2011 22:25 Cal File: 04211107.d
 Als bottle: 17
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnax.sub
 Target Version: 3.50

B at 103/11

Concentration Formula: $\text{Amt} * \text{DF} * \text{Vt} / (\text{Ws} * (100 - \text{M}) / 100) * \text{CpndVariable}$

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	11.44000	Weight of sample extracted (g)
M	7.10000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/mL)	FINAL (ug/kg)	
* 27 Naphthalene-d8	136	4.870	4.881	(1.000)	258077	2.00000		
28 Naphthalene	128	Compound Not Detected.						
\$ 190 2-Methylnaphthalene-d10	152	5.611	5.623	(1.152)	112108	1.55417	73.12	
32 2-Methylnaphthalene	141	Compound Not Detected.						
105 1-methylnaphthalene	141	Compound Not Detected.						
40 Acenaphthylene	152	Compound Not Detected.						
* 42 Acenaphthene-d10	164	7.125	7.137	(1.000)	151829	2.00000		
44 Acenaphthene	153	Compound Not Detected.						
46 Dibenzofuran	168	Compound Not Detected.						
49 Fluorene	166	Compound Not Detected.						
* 59 Phenanthrene-d10	188	9.072	9.083	(1.000)	256536	2.00000		
60 Phenanthrene	178	Compound Not Detected.						
61 Anthracene	178	Compound Not Detected.						
64 Fluoranthene	202	Compound Not Detected.						
65 Pyrene	202	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/kg)
=====	====	==	=====	=====	=====	=====	=====
68 Benzo(a)anthracene	228				Compound Not Detected.		
* 69 Chrysene-d12	240	13.819	13.834	(1.000)	270476	2.00000	
71 Chrysene	228				Compound Not Detected.		
74 Benzo(b)fluoranthene	252				Compound Not Detected.		
75 Benzo(k)fluoranthene	252				Compound Not Detected.		
188 Benzo(j)fluoranthene	252				Compound Not Detected.		
76 Benzo(a)pyrene	252				Compound Not Detected.		
* 77 Perylene-d12	264	17.506	17.521	(1.000)	224539	2.00000	
78 Indeno(1,2,3-cd)pyrene	276				Compound Not Detected.		
\$ 191 Dibenzo(a,h)anthracene-d14	292	19.797	19.821	(1.131)	208262	2.24205	105.5
79 Dibenzo(a,h)anthracene	278				Compound Not Detected.		
80 Benzo(g,h,i)perylene	276				Compound Not Detected.		
99 Perylene	252				Compound Not Detected.		

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt4.i
 Lab File ID: 05021117.d
 Lab Smp Id: SS71Q
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JZ
 Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m
 Misc Info: 11-8670

Calibration Date: 02-MAY-2011
 Calibration Time: 12:06
 Client Smp ID: LL-SB1-0-0.5-041
 Level: LOW
 Sample Type: Soil

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	276036	138018	552072	258077	-6.51
42 Acenaphthene-d10	158527	79264	317054	151829	-4.23
59 Phenanthrene-d10	277528	138764	555056	256536	-7.56
69 Chrysene-d12	304115	152058	608230	270476	-11.06
77 Perylene-d12	257833	128916	515666	224539	-12.91

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	4.88	4.38	5.38	4.87	-0.24
42 Acenaphthene-d10	7.14	6.64	7.64	7.13	-0.16
59 Phenanthrene-d10	9.08	8.58	9.58	9.07	-0.13
69 Chrysene-d12	13.83	13.33	14.33	13.82	-0.11
77 Perylene-d12	17.52	17.02	18.02	17.51	-0.08

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

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider

Sample Matrix: SOLID

Lab Smp Id: SS71Q

Level: LOW

Data Type: MS DATA

SpikeList File: pnalcss.spk

Sublist File: pnax.sub

Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m

Misc Info: 11-8670

Client SDG: SS71

Fraction: SV

Client Smp ID: LL-SB1-0-0.5-041911

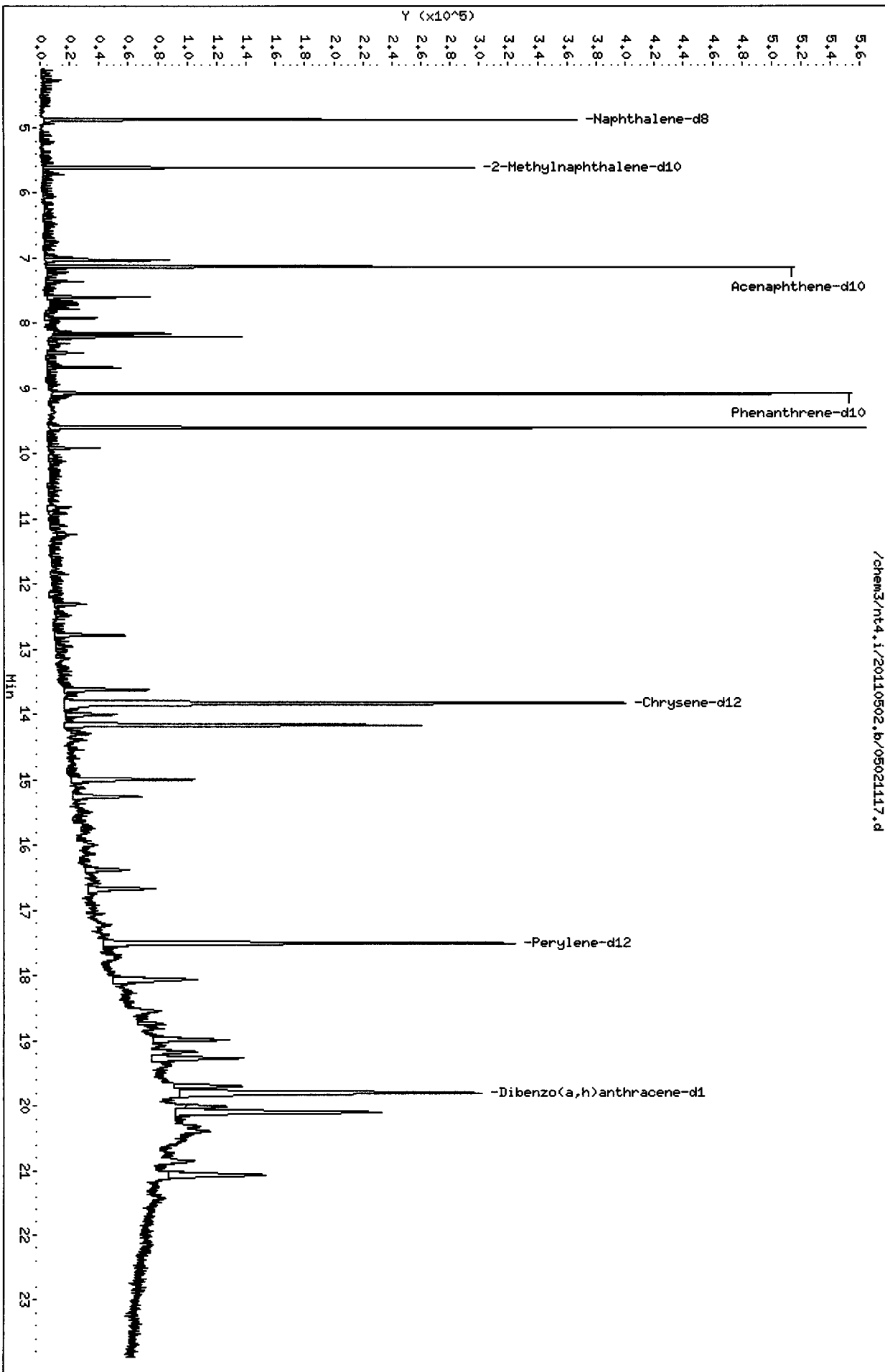
Operator: JZ

SampleType: SAMPLE

Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 190 2-Methylnaphthalen	141.1	73.12	51.81	34-100
\$ 191 Dibenzo(a,h)anthra	141.1	105.5	74.74	10-117

/chem3/nt4.i/20110502.b/05021117.d



CO-ELUTION SUMMARY FOR FILE - 05021117.d

Lab ID: SS71Q, Method: SIMPNA0421.m, Instrument: nt4.i, Date: 02-MAY-2011

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Analytical Resources, Inc.

Semivolatle Report SW846 Method 8270D

Data file : /chem3/nt4.i/20110502.b/05021118.d
 Lab Smp Id: SS71R Client Smp ID: LL-SB1-1.5-2-041911
 Inj Date : 02-MAY-2011 19:55
 Operator : JZ Inst ID: nt4.i
 Smp Info : SS71R
 Misc Info : 11-8671
 Comment : 1ul Injection
 Method : /chem3/nt4.i/20110502.b/SIMPNA0421.m
 Meth Date : 02-May-2011 19:51 jianqing Quant Type: ISTD
 Cal Date : 21-APR-2011 22:25 Cal File: 04211107.d
 Als bottle: 18
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnax.sub
 Target Version: 3.50

Handwritten: 05/03/11

Concentration Formula: Amt * DF * Vt / (Ws * (100 - M) / 100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	11.14000	Weight of sample extracted (g)
M	8.30000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ug/mL)	FINAL (ug/kg)	
* 27 Naphthalene-d8	136	4.872	4.881	(1.000)	260204	2.00000		
28 Naphthalene	128	Compound Not Detected.						
\$ 190 2-Methylnaphthalene-d10	152	5.614	5.623	(1.152)	101266	1.39239	68.15	
32 2-Methylnaphthalene	141	Compound Not Detected.						
105 1-methylnaphthalene	141	Compound Not Detected.						
40 Acenaphthylene	152	Compound Not Detected.						
* 42 Acenaphthene-d10	164	7.128	7.137	(1.000)	153705	2.00000		
44 Acenaphthene	153	Compound Not Detected.						
46 Dibenzofuran	168	Compound Not Detected.						
49 Fluorene	166	Compound Not Detected.						
* 59 Phenanthrene-d10	188	9.074	9.083	(1.000)	257202	2.00000		
60 Phenanthrene	178	Compound Not Detected.						
61 Anthracene	178	Compound Not Detected.						
64 Fluoranthene	202	Compound Not Detected.						
65 Pyrene	202	11.285	11.301	(0.817)	6964	0.05162	2.527	
68 Benzo(a)anthracene	228	Compound Not Detected.						

Compounds	QUANT SIG		CONCENTRATIONS					
	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)	
=====	====	==	=====	=====	=====	=====	=====	
* 69 Chrysene-d12	240	13.818	13.834	(1.000)	268298	2.00000		
71 Chrysene	228	13.881	13.903	(1.005)	6976	0.05753	2.816	
74 Benzo(b)fluoranthene	252	Compound Not Detected.						
75 Benzo(k)fluoranthene	252	Compound Not Detected.						
188 Benzo(j)fluoranthene	252	Compound Not Detected.						
76 Benzo(a)pyrene	252	Compound Not Detected.						
* 77 Perylene-d12	264	17.506	17.521	(1.000)	228949	2.00000		
78 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.						
\$ 191 Dibenzo(a,h)anthracene-d14	292	19.799	19.821	(1.131)	191933	2.02645	99.19	
79 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
80 Benzo(g,h,i)perylene	276	20.733	20.767	(1.184)	6823	0.06109	2.990	
99 Perylene	252	17.566	17.587	(1.003)	6443	0.06836	3.346	

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt4.i
 Lab File ID: 05021118.d
 Lab Smp Id: SS71R
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JZ
 Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m
 Misc Info: 11-8671

Calibration Date: 02-MAY-2011
 Calibration Time: 12:06
 Client Smp ID: LL-SB1-1.5-2-041
 Level: LOW
 Sample Type: Soil

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	276036	138018	552072	260204	-5.74
42 Acenaphthene-d10	158527	79264	317054	153705	-3.04
59 Phenanthrene-d10	277528	138764	555056	257202	-7.32
69 Chrysene-d12	304115	152058	608230	268298	-11.78
77 Perylene-d12	257833	128916	515666	228949	-11.20

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	4.88	4.38	5.38	4.87	-0.19
42 Acenaphthene-d10	7.14	6.64	7.64	7.13	-0.13
59 Phenanthrene-d10	9.08	8.58	9.58	9.07	-0.10
69 Chrysene-d12	13.83	13.33	14.33	13.82	-0.11
77 Perylene-d12	17.52	17.02	18.02	17.51	-0.09

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

Analytical Resources, Inc.

RECOVERY REPORT

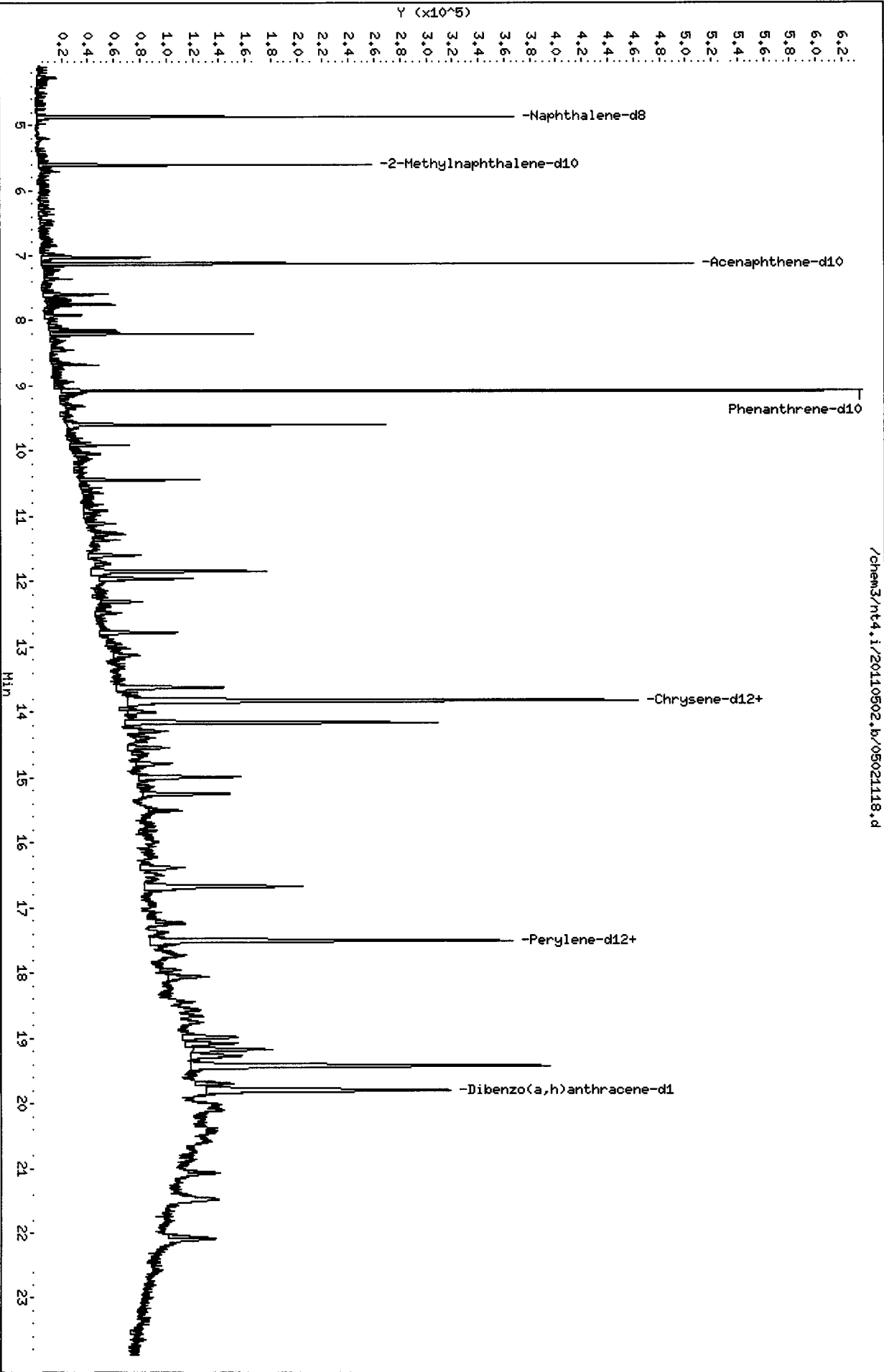
Client Name: Floyd Snider
Sample Matrix: SOLID
Lab Smp Id: SS71R
Level: LOW
Data Type: MS DATA
SpikeList File: pnalcss.spk
Sublist File: pnax.sub
Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m
Misc Info: 11-8671

Client SDG: SS71
Fraction: SV
Client Smp ID: LL-SB1-1.5-2-041911
Operator: JZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 190 2-Methylnaphthalen	146.8	68.15	46.41	34-100
\$ 191 Dibenzo(a,h) anthra	146.8	99.19	67.55	10-117

Data File: /chem3/nt4.i/20110502.b/05021118.d
Date: 02-MAY-2011 19:55
Client ID: LL-SB1-1,5-2-041911
Sample Info: SS71R
Volume Injected (µL): 1.0
Column phase: ZB35

Instrument: nt4.i
Operator: JZ
Column diameter: 0.32



CO-ELUTION SUMMARY FOR FILE - 05021118.d

Lab ID: SS71R, Method: SIMPNA0421.m, Instrument: nt4.i, Date: 02-MAY-2011

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

SIM PNA Sample-sm117s
 Data By: Jianqing Zhou
 Created: 5/ 3/11

Worklist: 1314
 Analyst: JZ
 Comments:

1. SS71S Soil 11-8672 LL-SB1-2-4-041911

Method: 8270D-SIM Sample Amt: 10.55 g-dry-wt
 Ext Date: 4/28/11 EFV (mL): 0.50
 Ext Meth: SW3580A-Waste Dil. Dilution: 1.0
 Instrument: NT4 Date/Time: 5/ 2/11 20:22

Surrogate	On Col (ug/mL)	Spiked (ug/mL)	LCL-UCL (%)	Rec (%)	Q
d10-2-Methylnaphthalene	1.84	3.00	34-100	61.3	
d14-Dibenzo(a,h)anthrace	2.32	3.00	10-117	77.3	

Analyte	On Col (ug/mL)	MDL (ug/kg)	RL (ug/kg)	Final (ug/kg)	Q
Benzo(a)anthracene	0.000	2.085	4.739	< 4.74	U
Chrysene	0.104	1.649	4.739	4.93	U
Benzo(a)pyrene	0.060	2.095	4.739	< 4.74	U
Indeno(1,2,3-cd)pyrene	0.052	1.583	4.739	< 4.74	U
Dibenz(a,h)anthracene	0.000	2.095	4.739	< 4.74	U
Total Benzofluoranthenes	0.095	3.175	4.739	< 4.74	U

Analytical Resources, Inc.

Semivolatile Report SW846 Method 8270D

Data file : /chem3/nt4.i/20110502.b/05021119.d
 Lab Smp Id: SS71S Client Smp ID: LL-SB1-2-4-041911
 Inj Date : 02-MAY-2011 20:22
 Operator : JZ Inst ID: nt4.i
 Smp Info : SS71S
 Misc Info : 11-8672
 Comment : 1ul Injection
 Method : /chem3/nt4.i/20110502.b/SIMPNA0421.m
 Meth Date : 02-May-2011 19:51 jianqing Quant Type: ISTD
 Cal Date : 21-APR-2011 22:25 Cal File: 04211107.d
 Als bottle: 19
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: pnax.sub
 Target Version: 3.50

04/03/11

Concentration Formula: $Amt * DF * Vt / (Ws * (100 - M) / 100) * CpndVariable$

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Volume of final extract (uL)
Ws	11.61000	Weight of sample extracted (g)
M	9.10000	% Moisture

Cpnd Variable

Local Compound Variable

Compounds	QUANT SIG	CONCENTRATIONS					
		RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/kg)
* 27 Naphthalene-d8	136	4.870	4.881	(1.000)	261780	2.00000	
28 Naphthalene	128	Compound Not Detected.					
§ 190 2-Methylnaphthalene-d10	152	5.611	5.623	(1.152)	134584	1.83937	87.14
32 2-Methylnaphthalene	141	Compound Not Detected.					
105 1-methylnaphthalene	141	Compound Not Detected.					
40 Acenaphthylene	152	Compound Not Detected.					
* 42 Acenaphthene-d10	164	7.125	7.137	(1.000)	156393	2.00000	
44 Acenaphthene	153	Compound Not Detected.					
46 Dibenzofuran	168	Compound Not Detected.					
49 Fluorene	166	Compound Not Detected.					
* 59 Phenanthrene-d10	188	9.072	9.083	(1.000)	259469	2.00000	
60 Phenanthrene	178	Compound Not Detected.					
61 Anthracene	178	Compound Not Detected.					
64 Fluoranthene	202	10.813	10.824	(1.192)	10895	0.07768	3.680
65 Pyrene	202	11.289	11.301	(0.817)	12206	0.08955	4.243
68 Benzo(a)anthracene	228	Compound Not Detected.					

Compounds	QUANT		SIG			RESPONSE	CONCENTRATIONS	
	MASS	RT	EXP RT	REL RT	ON-COLUMN (ug/mL)		FINAL (ug/kg)	
* 69 Chrysene-d12	240	13.819	13.834	(1.000)	271074	2.00000		
71 Chrysene	228	13.882	13.903	(1.005)	12684	0.10353	4.905	
74 Benzo(b)fluoranthene	252	16.336	16.354	(0.933)	12211	0.09540	4.520	
75 Benzo(k)fluoranthene	252	Compound Not Detected.						
188 Benzo(j)fluoranthene	252	Compound Not Detected.						
76 Benzo(a)pyrene	252	17.295	17.316	(0.988)	6815	0.05951	2.819	
* 77 Perylene-d12	264	17.507	17.521	(1.000)	235916	2.00000		
78 Indeno(1,2,3-cd)pyrene	276	19.882	19.893	(1.136)	7031	0.05218	2.472	
\$ 191 Dibenzo(a,h)anthracene-d14	292	19.806	19.821	(1.131)	226135	2.31705	109.8	
79 Dibenzo(a,h)anthracene	278	Compound Not Detected.						
80 Benzo(g,h,i)perylene	276	20.743	20.767	(1.185)	10571	0.09186	4.352	
99 Perylene	252	17.579	17.587	(1.004)	20551	0.21159	10.02	

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt4.i
 Lab File ID: 05021119.d
 Lab Smp Id: SS71S
 Analysis Type: SV
 Quant Type: ISTD
 Operator: JZ
 Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m
 Misc Info: 11-8672

Calibration Date: 02-MAY-2011
 Calibration Time: 12:06
 Client Smp ID: LL-SB1-2-4-04191
 Level: LOW
 Sample Type: Soil

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	276036	138018	552072	261780	-5.16
42 Acenaphthene-d10	158527	79264	317054	156393	-1.35
59 Phenanthrene-d10	277528	138764	555056	259469	-6.51
69 Chrysene-d12	304115	152058	608230	271074	-10.86
77 Perylene-d12	257833	128916	515666	235916	-8.50

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
27 Naphthalene-d8	4.88	4.38	5.38	4.87	-0.23
42 Acenaphthene-d10	7.14	6.64	7.64	7.13	-0.16
59 Phenanthrene-d10	9.08	8.58	9.58	9.07	-0.13
69 Chrysene-d12	13.83	13.33	14.33	13.82	-0.11
77 Perylene-d12	17.52	17.02	18.02	17.51	-0.08

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

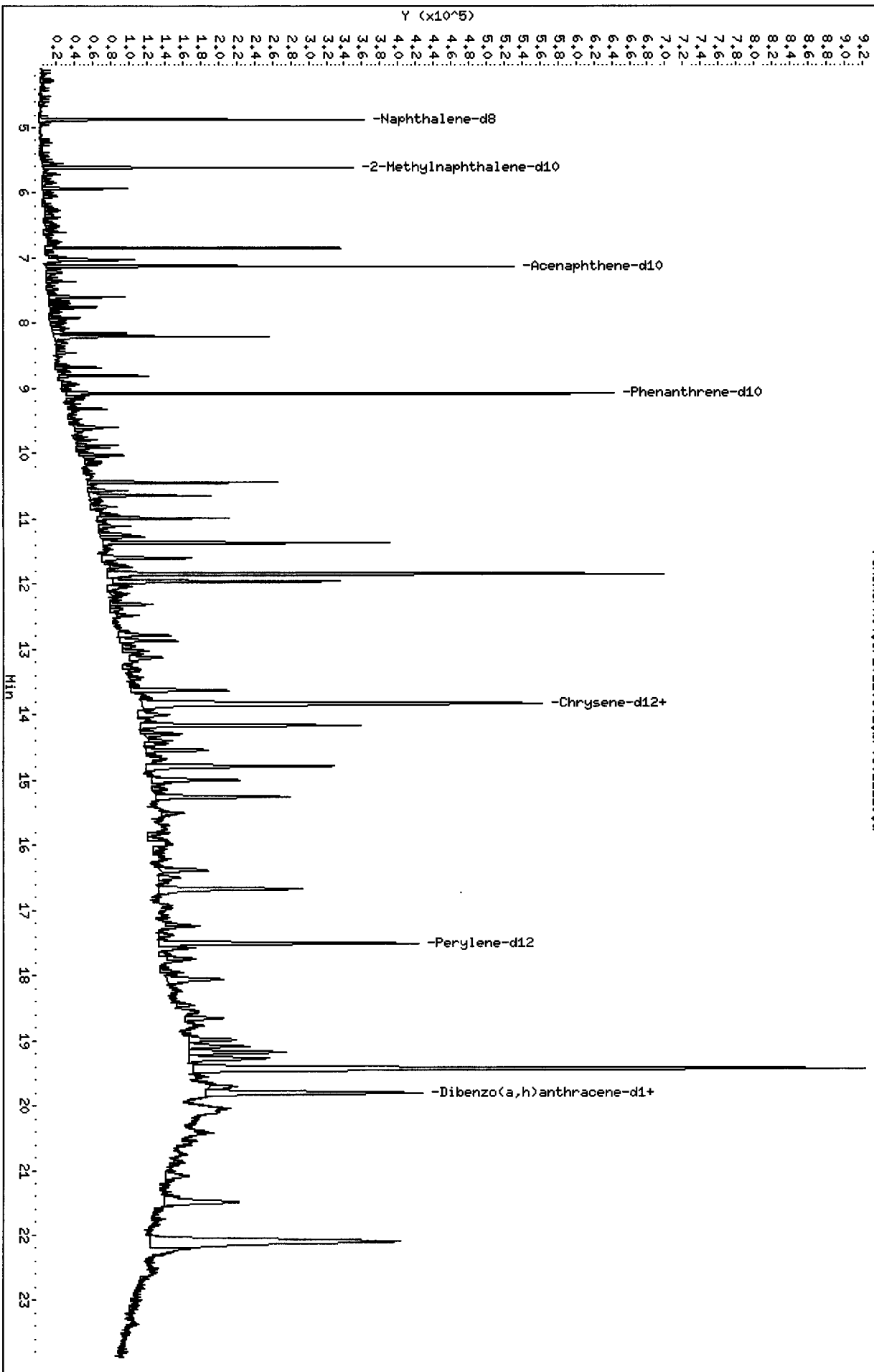
Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd Snider
Sample Matrix: SOLID
Lab Smp Id: SS71S
Level: LOW
Data Type: MS DATA
SpikeList File: pnalcss.spk
Sublist File: pmax.sub
Method File: /chem3/nt4.i/20110502.b/SIMPNA0421.m
Misc Info: 11-8672

Client SDG: SS71
Fraction: SV
Client Smp ID: LL-SB1-2-4-041911
Operator: JZ
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/kg	CONC RECOVERED ug/kg	% RECOVERED	LIMITS
\$ 190 2-Methylnaphthalen	142.1	87.14	61.31	34-100
\$ 191 Dibenzo(a,h)anthra	142.1	109.8	77.23	10-117



Date : 02-MAY-2011 20:22

Client ID: LL-SB1-2-4-041911

Instrument: nt4.i

Sample Info: SS71S

Volume Injected (uL): 1.0

Operator: JZ

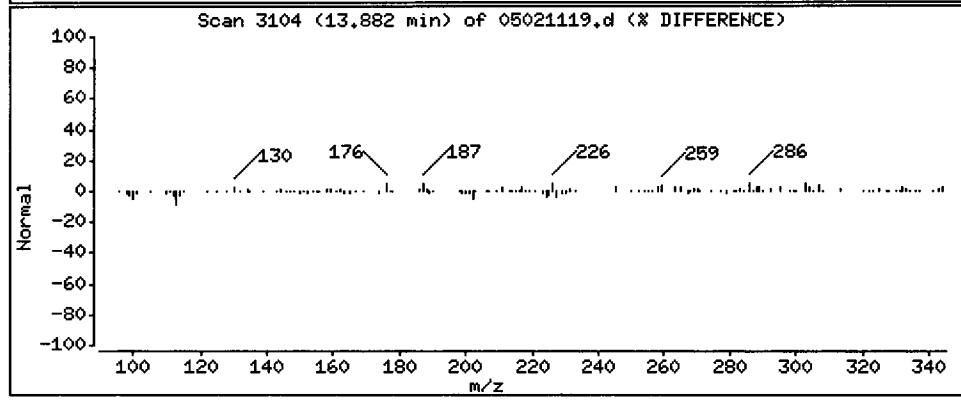
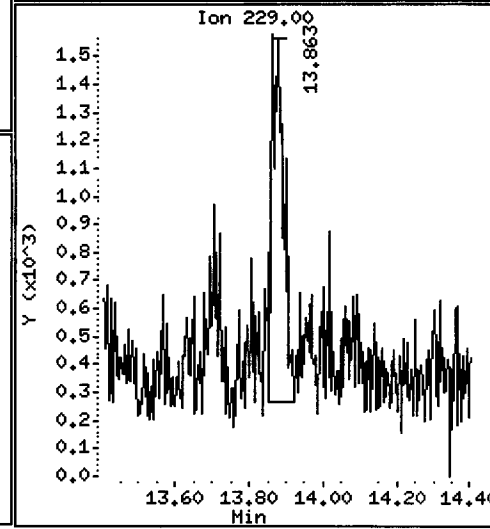
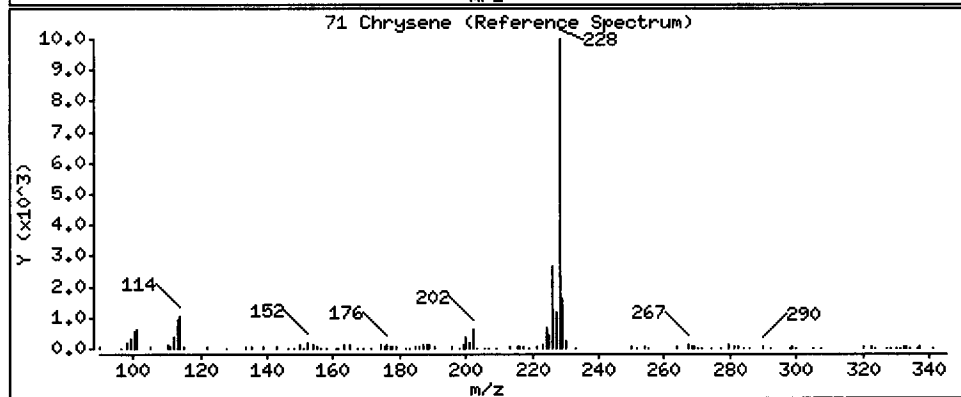
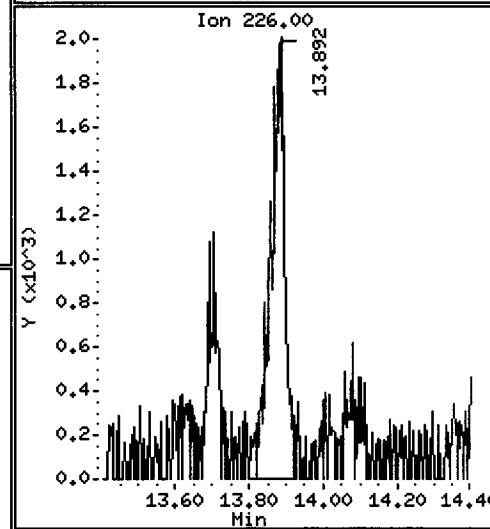
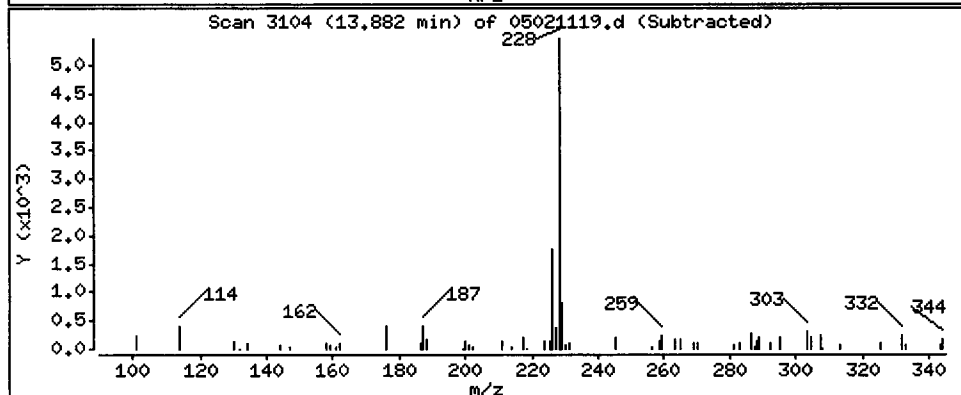
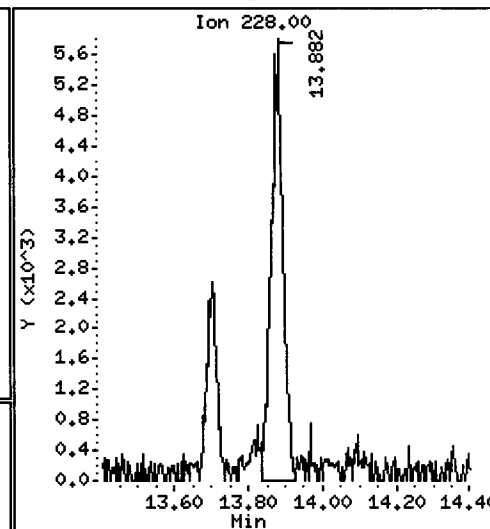
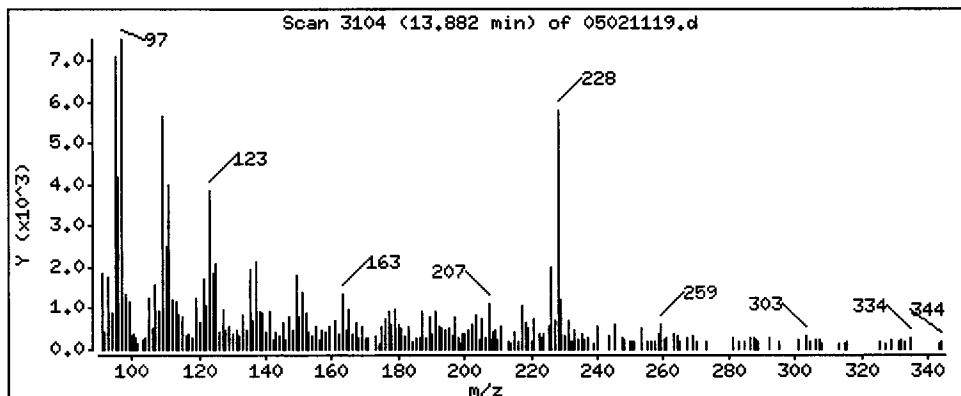
Column phase: ZB35

Column diameter: 0.32

Handwritten signature and date:
05/13/11

71 Chrysene

Concentration: 4.905 ug/kg



CO-ELUTION SUMMARY FOR FILE - 05021119.d

Lab ID: SS71S, Method: SIMPNA0421.m, Instrument: nt4.i, Date: 02-MAY-2011

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

SS71 . 00988

**PCP/Chlorophenols Raw Data
Extraction Bench Sheets and Notes**

ARI Job ID: SS71



Preparation Test PCP # 1

ARI Job No(s) 5571, 5583, 5552

In-House (0.25ppb)
Batch set up by: JL

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted	KD Exchange To Hexane (X2)	Turbo Vap (1)23	Volume to Lab	Derivatize	Final Effective Volume	Comments
	5571 MBW	Date 4-22-11	500mL			10mL	200µL Surr	50mL	
	SBW		↓			↓	800µL Drv. Hex	↓	
	SBWDup.		↓			↓		↓	
	QLS		↓			↓		↓	
7	↓ T	verified	500mL						
8	5583 P								
1	5552 A								
	B								
	C								
	D								
	E								
	F								
	G								
Analyst/Date:							JL SR SP PD 4-22-11 4/22/11 4/27/11 4/27/11 AR 5/6/2011 SR 4/27/11		

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	F 1791-B	100µL 12.5	12/19/11	ARL	PD
Spike	6 1791-5	100µL 12.5	12/19/11	ARL	PD
QLS Spike	16	50µL	12/19/11	ARL	PD
Extraction Time: 13:11			Derivatized by: AR 5/6/2011		Diazald ID: A

- SPECIAL INSTRUCTIONS: 1. Add surr/spike. 2. Acidify all with 1:1 Sulfuric Acid 3. Extract 3X with 30mL DCM.
4. KD (NO Drying Column) at 80° to 5mL. 5. Exchange (2 X with 20mL) Hexane at 100°. 6. Turbo Vap.
7. Vial at 10mL into Herb tubes using Hexane. 8. GC Analyst to Derivatize.

A. Archive YIN
5552 only

2787



Organic Extractions Laboratory Analyst Notes

ARI Job No.: 5571

Client ID: Floyd Suider

Parameter: PCP

Client Project: Lava Lake Parcel

Note problems, concerns, corrective actions	Analyst/Date
Screens: Soil/Sediment/Solid/Other:	
<input type="checkbox"/> No Anomalies (standard soil/sediment)	
<input type="checkbox"/> Wet sediment/sludge=	
<input type="checkbox"/> Standing Water Decanted=	
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay (Difficult to homogenize/Mixed with Kitchen Aid)=	
<input type="checkbox"/> Rocks/Organics=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input checked="" type="checkbox"/> No Anomalies <u>T.</u>	<u>PD4-22-11</u>
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates=	
<input type="checkbox"/> Emulsions=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Other Notes/Comments=	



Preparation Test PCP # 3

ARI Job No(s) SS71

In-House (6.25ppb)
Batch set up by: SP

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted (wet wt)	Sonic Horn ID + Check	KD Exchange To Hexane (X 2)	Turbo Vap 123	Volume to Lab	Derivitizate	Final Effective Volume	Comments
	SS71 MBS	Date 4/27/11	10.00g	i			10mL		25mL	
	SBS		↓	2			↓		↓	
	SBSdup		↓	3			↓		↓	
	QLS		↓	4			↓		↓	
9	A	checked	10.22	5						
	B		10.48	6						
	C		10.42	7						
	D		10.43	8						
	E		10.21	9						
	F		10.16	10						
	G		10.43	1						
	H		10.14	2						
25	I		10.16	3						
	IMS		10.43	4						
	IMS D		10.49	5						
9	J		10.48	6						
	K		10.13	7						
	L		10.48	8						
	M		10.49	9						
	N		10.49	10						
	O		10.91	1						
	P		10.26	2						
	Q		10.43	3						
	R		10.31	4						
	S		10.26	5						
Analyst/Date		WC 4/27/11		AC 4-28-11	4/29/11	CSE 4/30/11				

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	F 1791-3	50µL 12.5	12/9/11	WC	PD
Spike	6 1791-5	50µL 12.5/12.5	12/19/11	WC	PD
QLS Spike	16	25µL	12/10/11	WC	PD
Extraction Time: 11/14		Balance ID: 24150347	Derivitized by:	Diazald ID:	

- SPECIAL INSTRUCTIONS: 1. Weigh into 100mL beakers. 2. Use neutral sulfate to dry samples.
3. Acidify all with ¼ pipet conc. Sulfuric Acid. 4. Add surr/spike. 5. Leave in DCM overnight. 6. Extract 3X DCM.
7. Pour directly into KD (NO Glasswool). 8. KD to 5mL at 80°. 9. Exchange (2 X with 20mL) Hexane at 100°.
10. *Note: Do not filter extracts: Centrifuge and leave particulates behind-Note on Analyst Notes.
11. Turbo Vap 12. Vial at 10mL into Herb Tubes using Hexane. 13. GC Analyst to Derivitizate.

A. Need Total Solids Y/(N) B. Archive / Freeze Y/(N)



Analytical Resources,
Incorporated
Analytical Chemists and
Consultants

Organic Extractions Laboratory Analyst Notes

ARI Job No.: 5571

Client ID: Floyd Suider

Parameter: PCP

Client Project: Lora Lake Parcel

Note problems, concerns, corrective actions	Analyst/Date
Screens: Soil/Sediment/Solid/Other:	YL 4/21/11
<input checked="" type="checkbox"/> No Anomalies (standard soil/sediment) A, B, C, D, E, F, G, H, I, J, K, L M, N, O, P, Q, R, S	↓
<input type="checkbox"/> Wet sediment/sludge=	
<input type="checkbox"/> Standing Water Decanted=	
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay (Difficult to homogenize/Mixed with Kitchen Aid)=	
<input type="checkbox"/> Rocks/Organics=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates=	
<input type="checkbox"/> Emulsions=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Other Notes/Comments=	
- KD Station # MBW, SBW, SBW Dup, OLS before KD exchange was pink color. ^{4/29/11}	YL 4/29/11

**PCP/Chlorophenols Raw Data
Initial Calibration**

ARI Job ID: SS71



GC Analyst Notes / Corrective Action Log

ARI Project ID: C1 Phenol's Curve Client ID: ART

ARI SOP: 403S(PCB) 405S(Herb) 407S(TPH-D) 409S(HCID) 412S(PCP) 423S(Pest)
427S(Dir Inj) 428S(EPH) 432S(EDB) Other

Parameter(s): _____

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/4/2011 Analysis Start: 5/4/2011

Endrin/DDT Breakdown <15%? YES / NO / NA Method Blank In Control? YES / NO
ICal Meets RF & %RSD Criteria? YES / NO LCS/LCSD Recovery In Control? YES / NO
CCal Meets RF & %RSD Criteria? YES / NO Surrogate Recovery In Control? YES / NO
Manual Integrations for ICal? YES / NO Manual Integrations for Samples? YES / NO
Internal Standard Meets Criteria? YES / NO / NA Special Analysis Criteria Met? YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Col 2 Quadratic - forced : 2,4-DCP; 2,3,4-TCP & 2,3,4,5-TTCP
Col 1 Quadratic - forced : 2,4-DCP & 2,4,5-TCP

Additional Details on Reverse: Yes No

Analyst: [Signature] Date: 5/6/2011

Reviewer: [Signature] Date: 5/6/11

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecd1.i/PCP20110504.b/PCPB.m
Batch File: /chem2/ecd1.i/PCP20110504.b/ical-2.b
Inst ID: ecd1.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT06	RT07	RT07	
FILENAME:	0504A010	0504A011	0504A012	0504A013	0504A014	0504A015	0504A016	0504A017	0504A018	0504A019	
INJ.DATE:	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	
INJ.TIME:	13:56	14:32	15:08	15:44	16:21	16:57	17:33	16:57	17:33	17:33	
Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 2,4-Dichlorophenol	13.820	13.824	13.821	13.821	13.821	13.820	13.822	13.820	13.750-13.890	13.821	0.001
2 2,4,6-Trichlorophenol	14.311	14.314	14.311	14.312	14.312	14.311	14.313	14.311	14.241-14.381	14.312	0.001
3 2,3,6-Trichlorophenol	15.557	15.560	15.557	15.558	15.558	15.559	15.560	15.557	15.487-15.627	15.558	0.001
4 2,4,5-Trichlorophenol	17.474	17.477	17.475	17.474	17.475	17.475	17.476	17.474	17.404-17.544	17.475	0.001
5 2,3,5,6-Tetrachlorophe	18.814	18.816	18.814	18.814	18.814	18.814	18.816	18.814	18.744-18.884	18.814	0.001
6 2,3,4-Trichlorophenol	19.023	19.025	19.024	19.023	19.023	19.023	19.024	19.023	18.953-19.093	19.024	0.001
7 2,4,6-Tribromophenol (20.936	20.937	20.936	20.936	20.937	20.937	20.938	20.936	20.866-21.006	20.937	0.001
8 2,3,4,5-Tetrachlorophe	22.080	22.082	22.081	22.080	22.081	22.081	22.081	22.080	22.010-22.150	22.081	0.001
9 Pentachlorophenol	22.967	22.968	22.967	22.967	22.967	22.968	22.968	22.967	22.897-23.037	22.968	0.001

Reviewer 1 AR Date: 5/6/2011
Reviewer 2 AR Date: 5/6/11

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecdl.i/PCP20110504.b/ical-2.b

ARI Job No.: PCPD Method: PCPB.m Instrument: ecd1.i Date: 04-MAY-2011

Time Filename LabID ClientId DF Manually Integrated Compounds

1356	0504A009.d	PCPD		1	NO MANUAL INTEGRATION
1432	0504A010.d	PCPA		1	NO MANUAL INTEGRATION
1508	0504A011.d	PCPB		1	NO MANUAL INTEGRATION
1544	0504A012.d	PCPC		1	NO MANUAL INTEGRATION
1621	0504A013.d	PCPE		1	NO MANUAL INTEGRATION
1657	0504A014.d	PCPF		1	NO MANUAL INTEGRATION
1733	0504A015.d	PCP ICV		1	NO MANUAL INTEGRATION

5571 : 00997

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem2/ecdl1.i/PCP20110504.b/PCP.m
Batch File: /chem2/ecdl1.i/PCP20110504.b/ical-1.b
Inst ID: ecd1.1

ID	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
FILENAME:	0504A009	0504A010	0504A011	0504A012	0504A013	0504A014	0504A015				
INJ.DATE:	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011	04-MAY-2011				
INJ.TIME:	13:56	14:32	15:08	15:44	16:21	16:57	17:33				
Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 2,4-Dichlorophenol	12.555	12.560	12.557	12.556	12.556	12.556	12.557	12.555	12.485-12.625	12.557	0.002
2 2,4,6-Trichlorophenol	13.101	13.104	13.101	13.102	13.101	13.102	13.103	13.101	13.031-13.171	13.102	0.001
3 2,3,6-Trichlorophenol	14.097	14.100	14.097	14.097	14.097	14.097	14.099	14.097	14.027-14.167	14.098	0.001
4 2,4,5-Trichlorophenol	15.845	15.849	15.845	15.846	15.845	15.846	15.847	15.845	15.775-15.915	15.846	0.001
5 2,3,4-Trichlorophenol	17.351	17.355	17.352	17.352	17.352	17.351	17.354	17.351	17.281-17.421	17.353	0.001
6 2,3,5,6-Tetrachlorophe	17.153	17.155	17.153	17.153	17.153	17.154	17.155	17.153	17.083-17.223	17.154	0.001
7 2,4,6-Tribromophenol (18.596	18.598	18.596	18.596	18.596	18.596	18.598	18.596	18.526-18.666	18.597	0.001
8 2,3,4,5-Tetrachlorophe	20.155	20.157	20.156	20.155	20.155	20.155	20.157	20.155	20.085-20.225	20.156	0.001
9 Pentachlorophenol	20.997	21.000	20.998	20.998	20.998	20.999	20.999	20.997	20.927-21.067	20.998	0.001

Reviewer 1
Reviewer 2

AR Date: 5/6/2011
Date: 5/6/11

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem2/ecdl.i/PCP20110504.b/ical-1.b

ARI Job No.: PCPD Method: PCP.m Instrument: ecd1.i Date: 04-MAY-2011

Time Filename LabID ClientId DF Manually Integrated Compounds

1356 0504A009.d PCPD 1 NO MANUAL INTEGRATION

1432 0504A010.d PCPA 1 2,3,4,5-Tetrachlorophenol,

1508 0504A011.d PCPB 1 NO MANUAL INTEGRATION

1544 0504A012.d PCPC 1 NO MANUAL INTEGRATION

1621 0504A013.d PCPE 1 NO MANUAL INTEGRATION

1657 0504A014.d PCPF 1 NO MANUAL INTEGRATION

1733 0504A015.d PCP ICV 1 NO MANUAL INTEGRATION

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAY-2011 13:56
 End Cal Date : 04-MAY-2011 16:57
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem2/ecdl.i/PCP20110504.b/PCPB.m
 Cal Date : 06-May-2011 10:29 aron
 Curve Type : Average

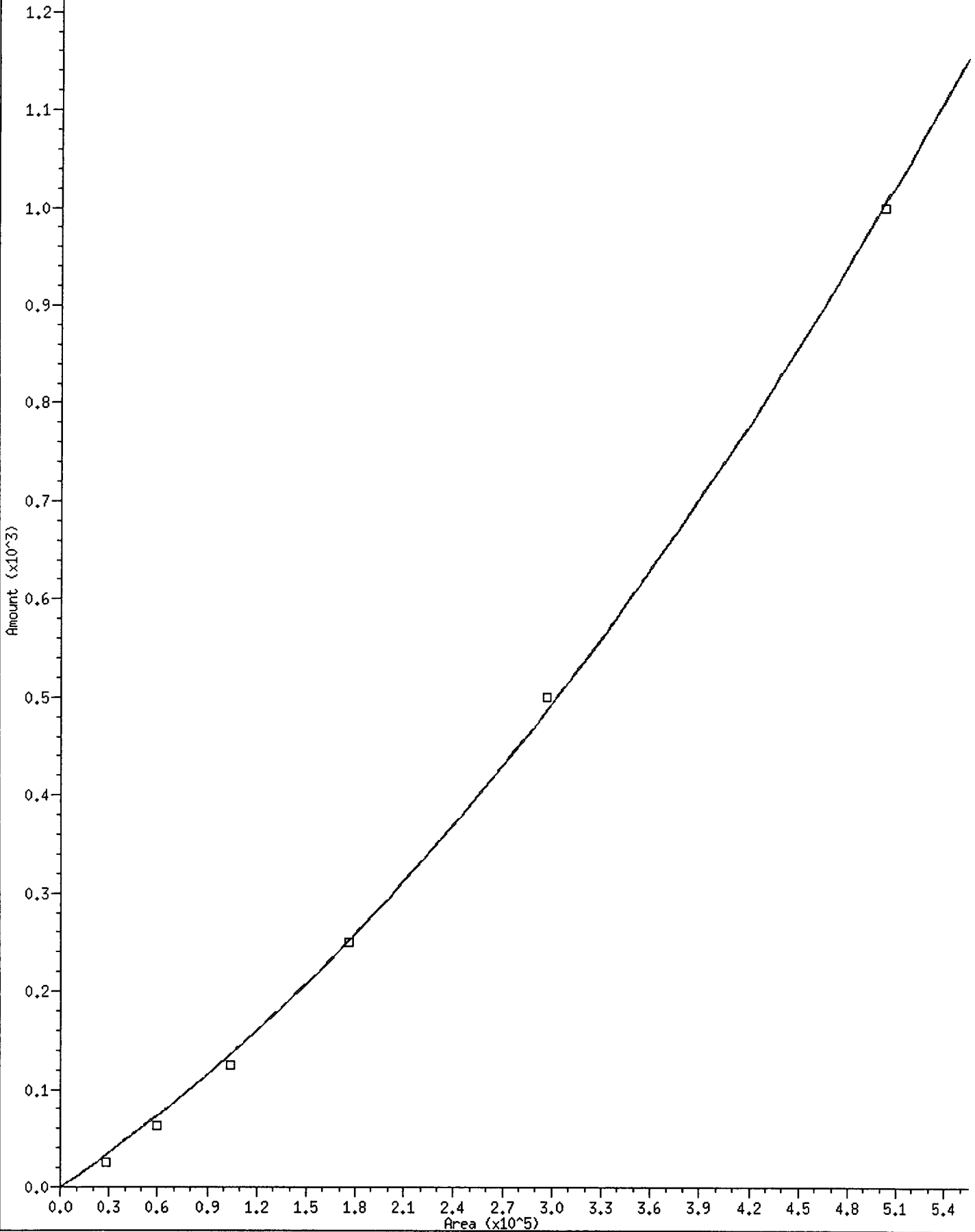
Calibration File Names:

Level 1: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A010.d
 Level 2: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A011.d
 Level 3: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A012.d
 Level 4: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A009.d
 Level 5: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A013.d
 Level 6: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A014.d

Compound	2.500 Level 1	6.250 Level 2	12.500 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
1 2,4-Dichlorophenol ✓	1124	962	835	702	594	505	787	29.552 <-
2 2,4,6-Trichlorophenol	18173	16199	15364	13872	12302	11052	14494	18.054
3 2,3,6-Trichlorophenol	17538	16304	15194	13812	12444	10949	14373	17.093
4 2,4,5-Trichlorophenol	10375	9203	8375	7827	6888	5906	8096	19.784
5 2,3,5,6-Tetrachlorophenol	28198	24060	22545	20410	19063	17352	21938	17.734
6 2,3,4-Trichlorophenol ✓	13793	11382	10368	9080	8182	7194	10000	23.857 <-
8 2,3,4,5-Tetrachlorophenol ✓	21700	18848	16677	15352	13827	12342	16458	20.753 <-
9 Pentachlorophenol	35686	31408	28958	26156	24465	22293	28161	17.390
\$ 7 2,4,6-Tribromophenol (surr)	26776	22121	21311	19850	18746	17341	21024	15.703

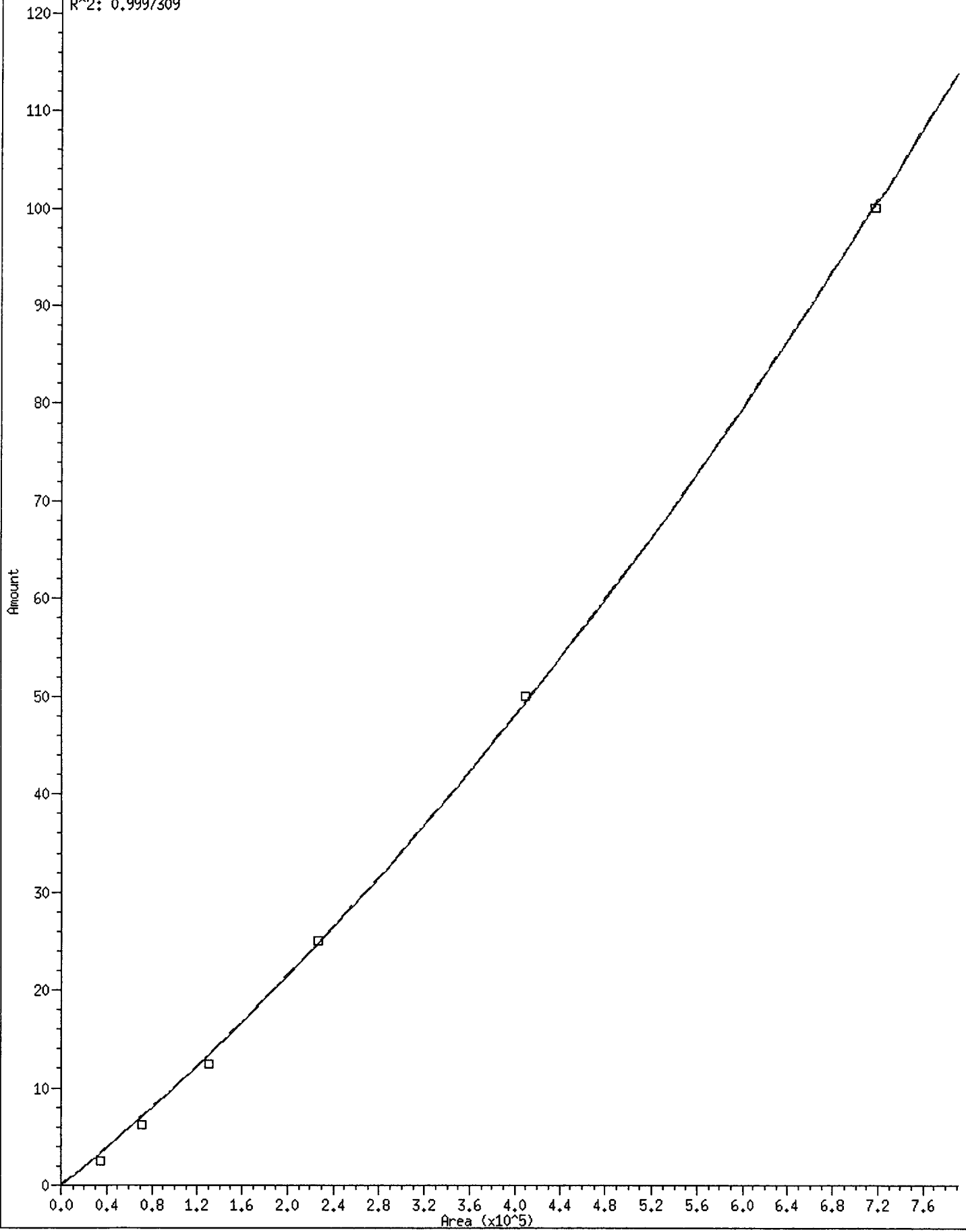
1 2,4-Dichlorophenol

Curve Type: Quadratic By-Response
Amt = 0 + 0.001124478*Rsp + 1.715219e-09*Rsp^2
R^2: 0.9994256



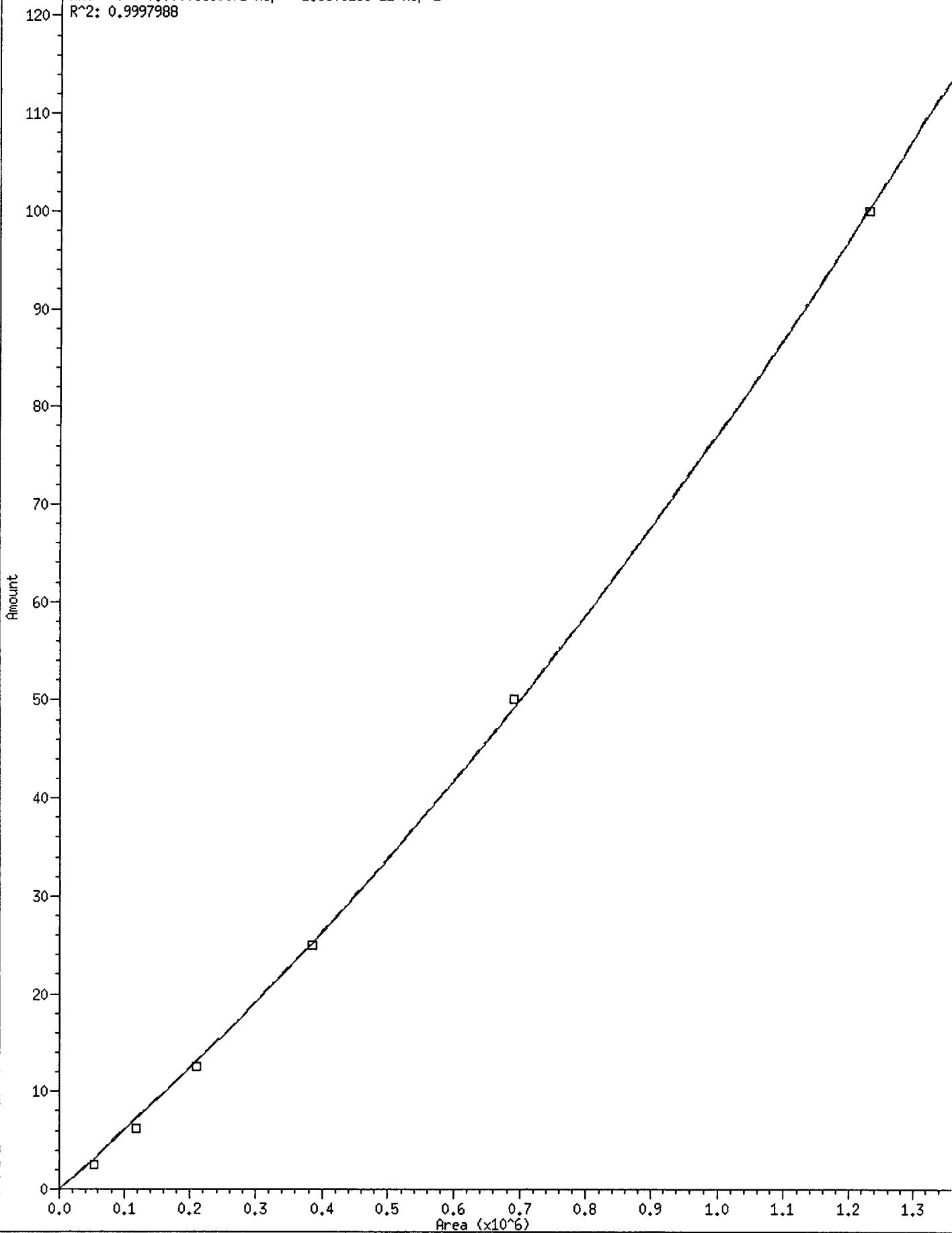
6 2,3,4-Trichlorophenol

Curve Type: Quadratic By-Response
Amt = 0 + 0.00009518633*Rsp + 6.138516e-11*Rsp^2
R^2: 0.9997309



8 2,3,4,5-Tetrachlorophenol

Curve Type: Quadratic By-Response
Amt = 0 + 0.00005835871*Rsp + 1.850823e-11*Rsp^2
R^2: 0.9997988



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAY-2011 13:56
 End Cal Date : 04-MAY-2011 16:57
 Quant Method : ESTD
 Origin : Force
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem2/ecdl.i/PCP20110504.b/PCPB.m
 Cal Date : 06-May-2011 10:29 aron

Calibration File Names:

Level 1: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A010.d
 Level 2: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A011.d
 Level 3: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A012.d
 Level 4: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A009.d
 Level 5: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A013.d
 Level 6: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A014.d

Compound	2		6		12		25		50		100		Coefficients		%RSD or R ²		
	Level 1	Level 2	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 5	Level 6	Level 6	Level 6	Curve	b		m1	m2
1 2,4-Dichlorophenol	28101	60102	104374	175491	297223	504644	QUAD	0.00112	1.715e-09	0.99943							
2 2,4,6-Trichlorophenol	18173	16199	15364	13872	12302	11052	AVRG	14494		18.05411							
3 2,3,6-Trichlorophenol	17538	16304	15194	13812	12444	10949	AVRG	14373		17.09291							
4 2,4,5-Trichlorophenol	10375	9203	8375	7827	6888	5906	AVRG	8096		19.78419							
5 2,3,5,6-Tetrachlorophenol	28198	24060	22545	20410	19063	17352	AVRG	21938		17.73407							
6 2,3,4-Trichlorophenol	34482	71137	129601	227012	409120	719354	QUAD	0.00010	6.139e-11	0.99973							
8 2,3,4,5-Tetrachlorophenol	54250	117798	208459	383811	691341	1234197	QUAD	0.00006	1.851e-11	0.99980							
9 Pentachlorophenol	35686	31408	28958	26156	24465	22293	AVRG	28161		17.38988							
7 2,4,6-Tribromophenol (surr)	26776	22121	21311	19850	18746	17341	AVRG	21024		15.70277							

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAY-2011 13:56
 End Cal Date : 04-MAY-2011 16:57
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem2/ecdl.i/PCP20110504.b/PCP.m
 Cal Date : 06-May-2011 10:50 aron
 Curve Type : Average

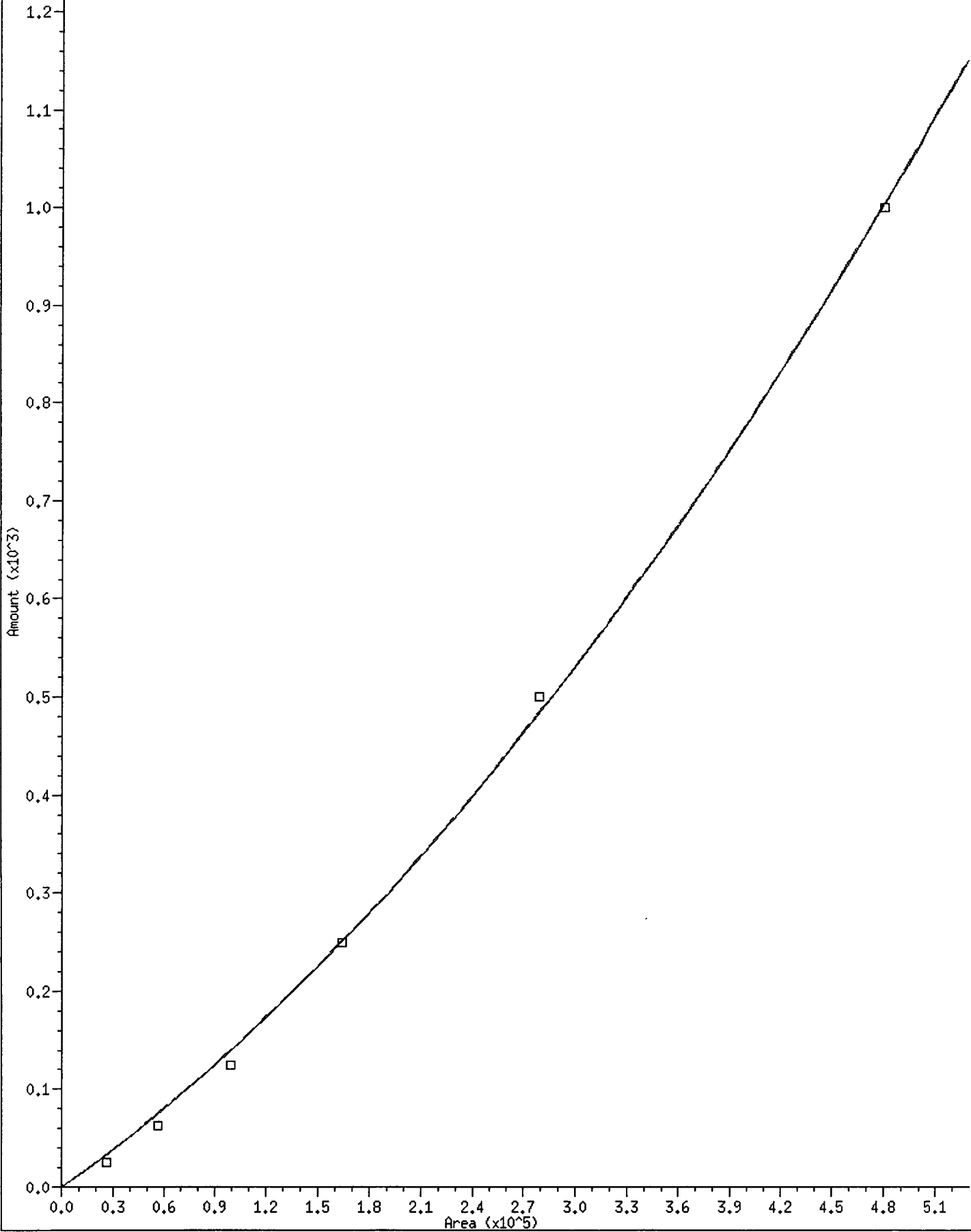
Calibration File Names:

Level 1: /chem2/ecdl.i/PCP20110504.b/ical-1.b/0504A010.d
 Level 2: /chem2/ecdl.i/PCP20110504.b/ical-1.b/0504A011.d
 Level 3: /chem2/ecdl.i/PCP20110504.b/ical-1.b/0504A012.d
 Level 4: /chem2/ecdl.i/PCP20110504.b/ical-1.b/0504A009.d
 Level 5: /chem2/ecdl.i/PCP20110504.b/ical-1.b/0504A013.d
 Level 6: /chem2/ecdl.i/PCP20110504.b/ical-1.b/0504A014.d

Compound	2.500 Level 1	6.250 Level 2	12.500 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
1 2,4-Dichlorophenol	1040	896	796	655	559	482	738	28.677 <-
2 2,4,6-Trichlorophenol	15281	13835	12795	11181	10412	9532	12173	17.948
3 2,3,6-Trichlorophenol	14259	12818	11863	10765	9925	9085	11453	16.712
4 2,4,5-Trichlorophenol	12140	8082	7421	6534	5905	5130	7535	33.025 <-
5 2,3,4-Trichlorophenol	10565	9519	8778	7811	7138	6322	8355	18.794
6 2,3,5,6-Tetrachlorophenol	20194	18565	17499	16125	15182	13876	16907	13.661
8 2,3,4,5-Tetrachlorophenol	16824	14772	13475	11938	10977	9904	12982	19.728
9 Pentachlorophenol	24557	22356	20781	19124	17785	16292	20149	15.089
\$ 7 2,4,6-Tribromophenol (surr)	18340	16896	15885	15230	14566	13549	15744	10.839

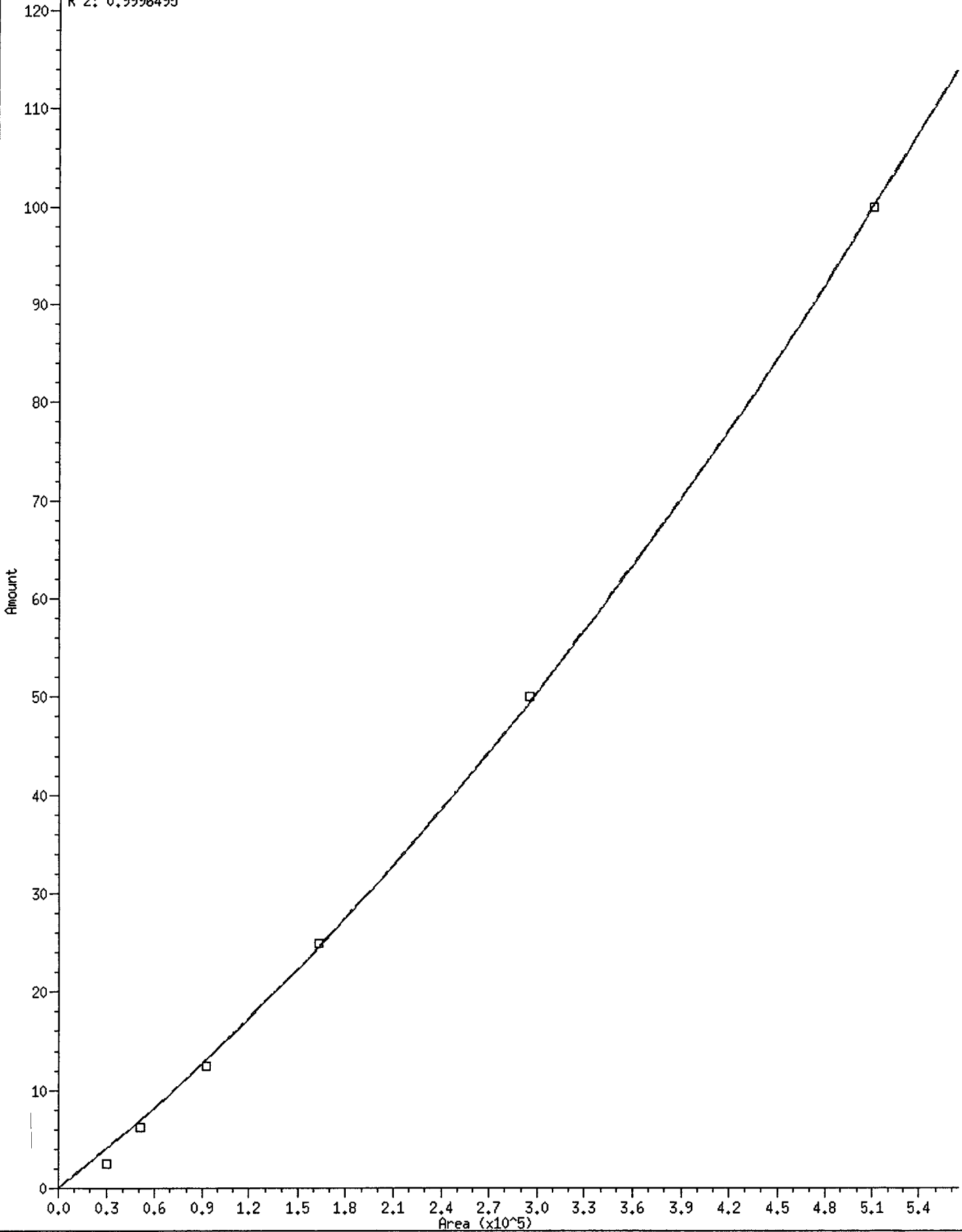
1 2,4-Dichlorophenol

Curve Type: Quadratic By-Response
Amt = 0 + 0.001233026*Rsp + 1.771634e-09*Rsp^2
R^2: 0.9991712



4 2,4,5-Trichlorophenol

Curve Type: Quadratic By-Response
Amt = 0 + 0.0001295173*Rsp + 1.28296e-10*Rsp^2
R^2: 0.9996495



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 04-MAY-2011 13:56
 End Cal Date : 04-MAY-2011 16:57
 Quant Method : ESTD
 Origin : Force
 Target Version : 3.50
 Integrator : HP Genie
 Method file : /chem2/ecdl1.i/PCP20110504.b/PCP.m
 Cal Date : 06-May-2011 10:50 aron

Calibration File Names:

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 Level 2: /chem2/ecdl1.i/PCP20110504.b/ical-1.b/0504A011.d
 Level 3: /chem2/ecdl1.i/PCP20110504.b/ical-1.b/0504A012.d
 Level 4: /chem2/ecdl1.i/PCP20110504.b/ical-1.b/0504A009.d
 Level 5: /chem2/ecdl1.i/PCP20110504.b/ical-1.b/0504A013.d
 Level 6: /chem2/ecdl1.i/PCP20110504.b/ical-1.b/0504A014.d

Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	b	ml	m2	or R^2	RSR
1 2,4-Dichlorophenol	25994	56009	99540	163817	279617	481637	QUAD	0.000e+00	0.00123	1.772e-09		0.99917
2 2,4,6-Trichlorophenol	15281	13835	12795	11181	10412	9532	AVRG		12173			17.94765
3 2,3,6-Trichlorophenol	14259	12818	11863	10765	9925	9085	AVRG		11453			16.71151
4 2,4,5-Trichlorophenol	30350	50514	92760	163352	295231	512989	QUAD	0.000e+00	0.00013	1.283e-10		0.99965
5 2,3,4-Trichlorophenol	10565	9519	8778	7811	7138	6322	AVRG		8355			18.79441
6 2,3,5,6-Tetrachlorophenol	20194	18565	17499	16125	15182	13876	AVRG		16907			13.66148
8 2,3,4,5-Tetrachlorophenol	16824	14772	13475	11938	10977	9904	AVRG		12982			19.72816
9 Pentachlorophenol	24557	22356	20781	19124	17785	16292	AVRG		20149			15.08931
7 2,4,6-Tribromophenol (surr)	18340	16896	15885	15230	14566	13549	AVRG		15744			10.83879

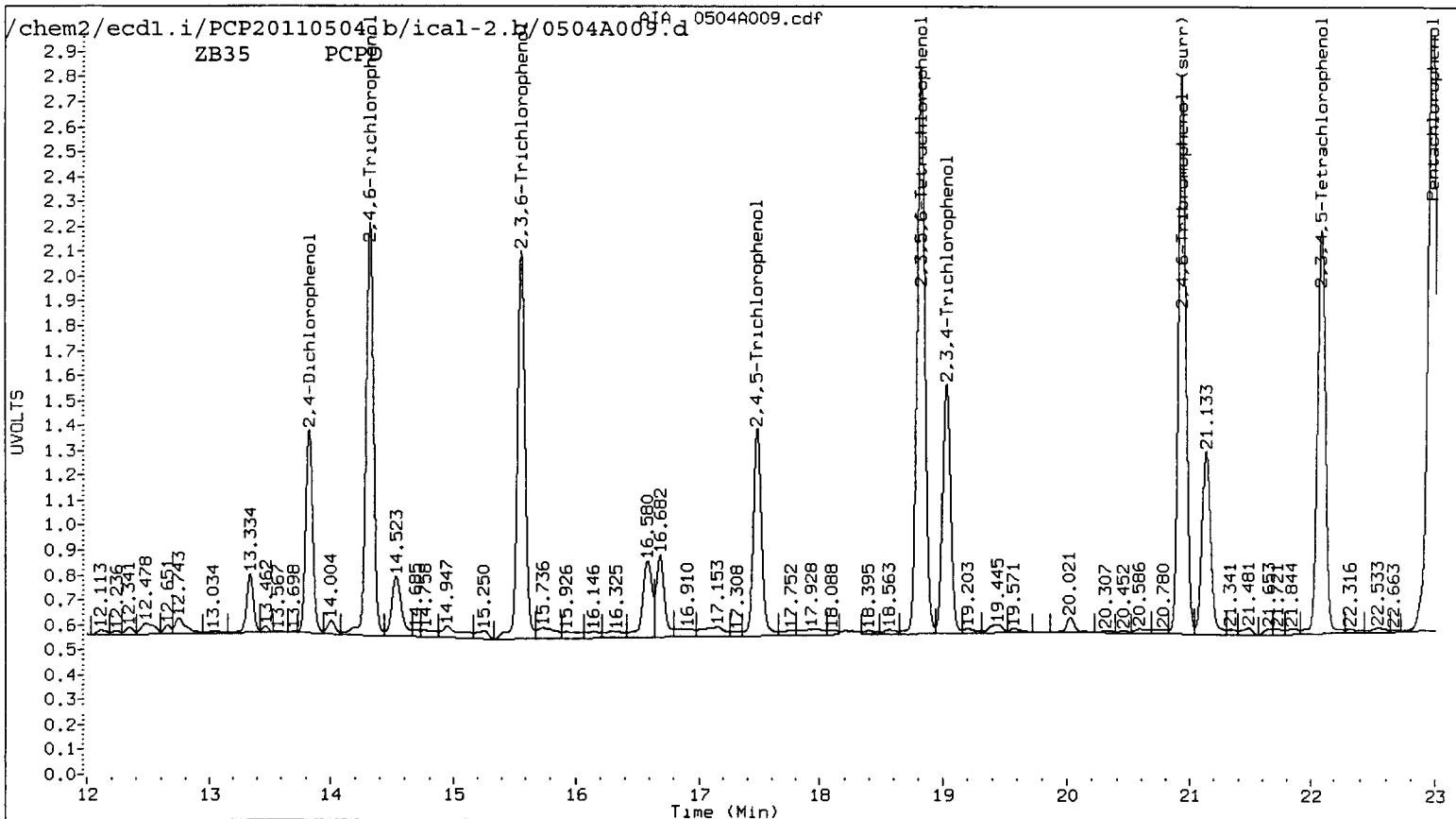
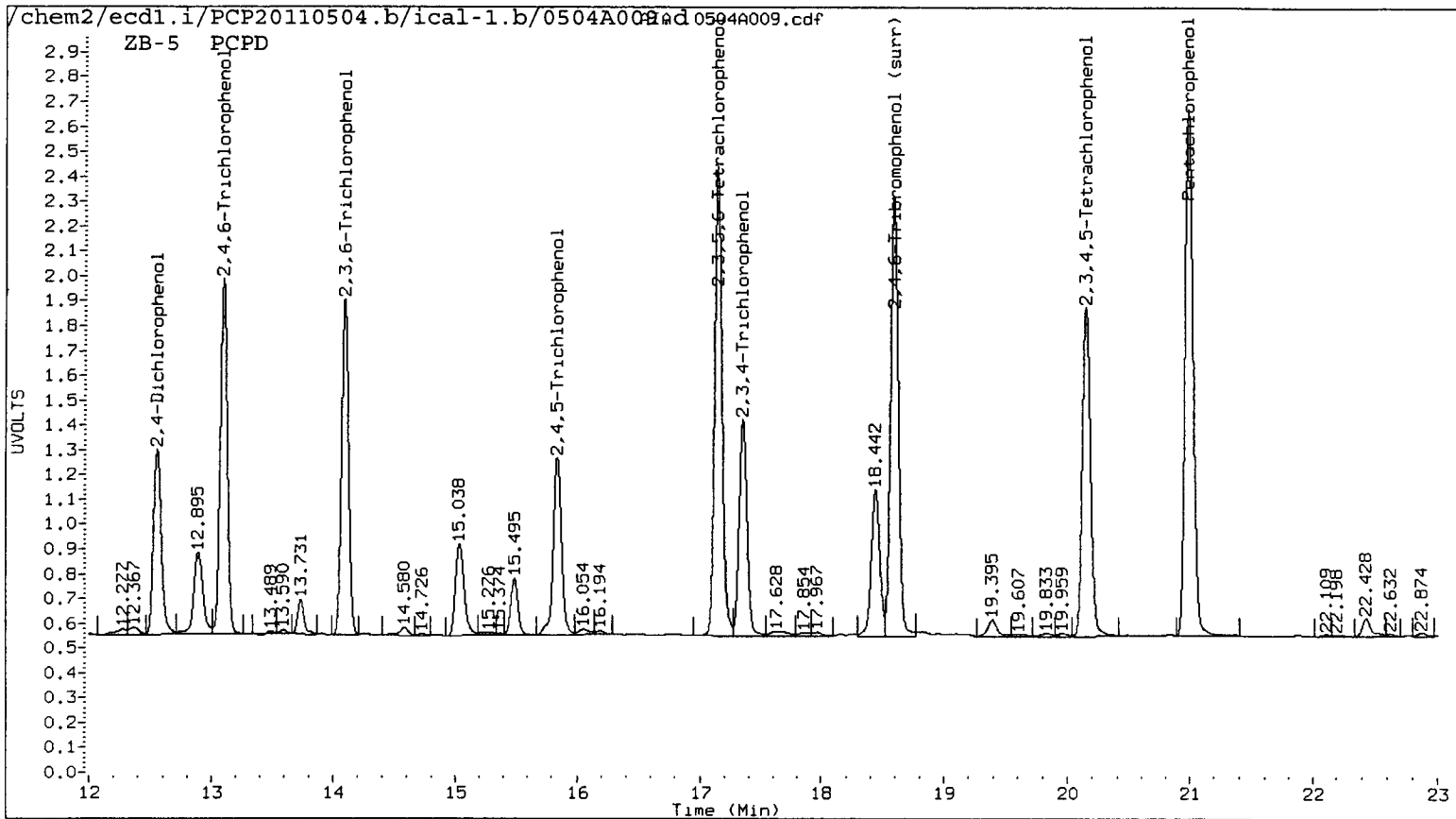
Analytical Resources Inc.
 Dual Column 8041 Chlorinated Phenols Quantitation Report

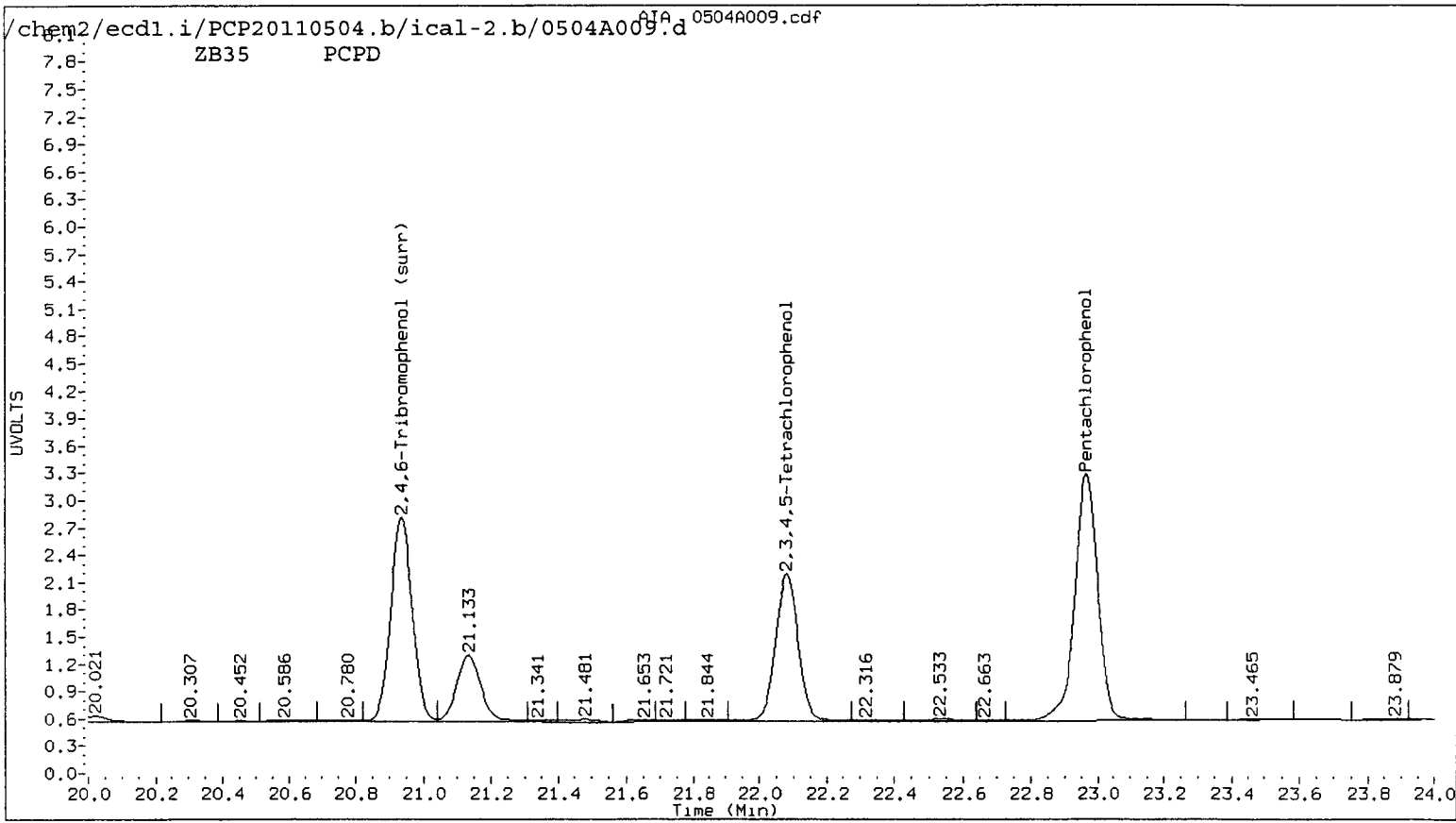
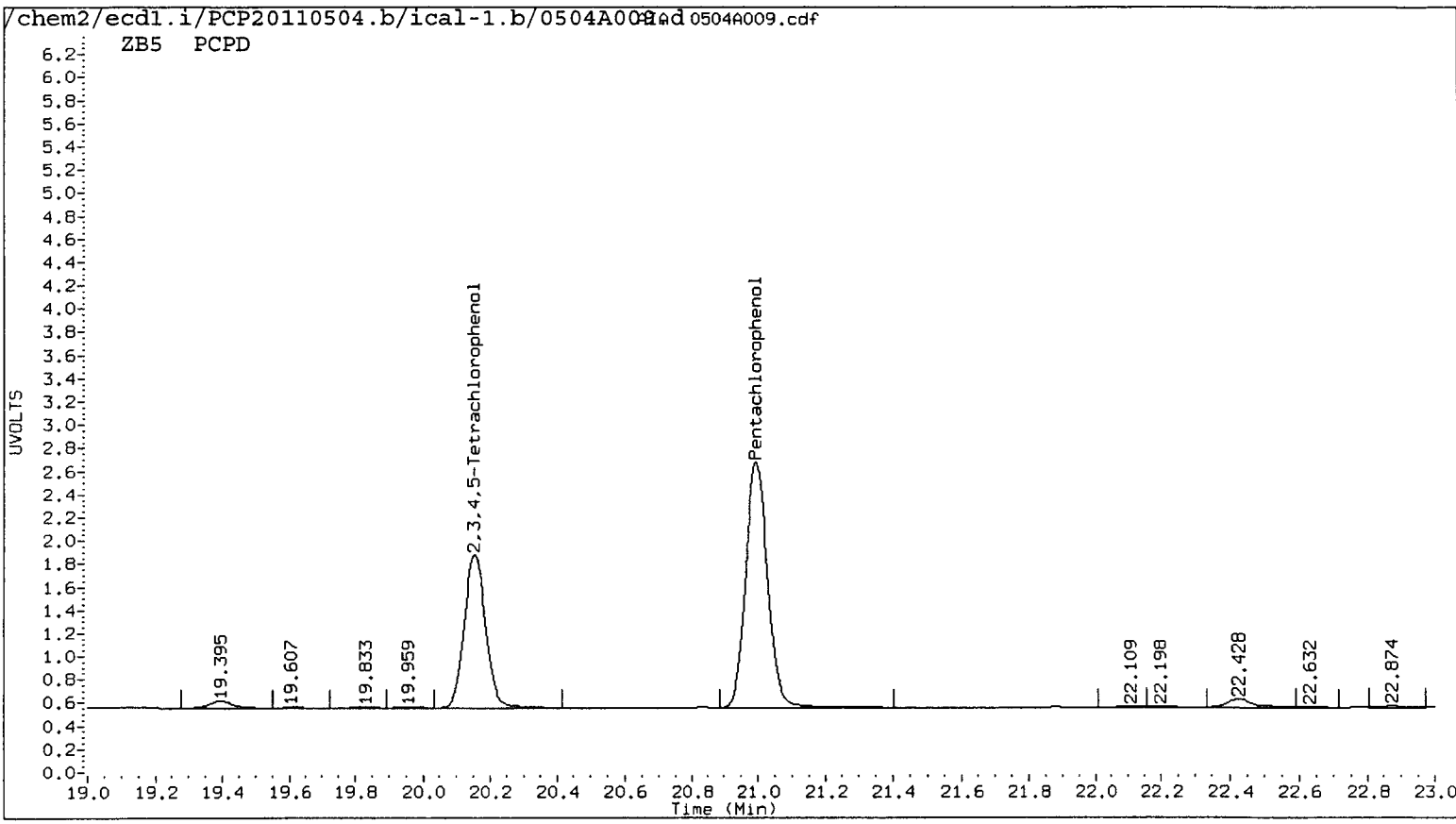
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A009.d Client ID:
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 13:56
 Compound Sublist: all Report Date: 05/06/2011 10:51
 Instrument: ecd1.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.997	0.000	478095	22.967	0.000	653905	23.7278	23.2203	2.2	Pentachlorophenol
13.101	0.000	279531	14.311	0.000	346808	22.9636	23.9281	4.1	2,4,6-Trichlorophenol
14.097	0.000	269131	15.557	0.000	345288	23.4995	24.0227	2.2	2,3,6-Trichlorophenol
15.845	0.000	163352	17.474	0.000	195681	24.5803	24.1710	1.7	2,4,5-Trichlorophenol
17.351	0.000	195271	19.023	0.000	227012	23.3708	24.7719	5.8	2,3,4-Trichlorophenol
17.153	0.000	403117	18.814	0.000	510260	23.8436	23.2592	2.5	2,3,5,6-Tetrachlorophenol
20.155	0.000	298448	22.080	0.000	383811	22.9898	25.1252	8.9	2,3,4,5-Tetrachlorophenol
12.555	0.000	163817	13.820	0.000	175491	249.5342	250.1594	0.3	2,4-Dichlorophenol
18.596	0.000	380744	20.936	0.000	496261	24.2	23.6	2.4	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	96.7	94.4

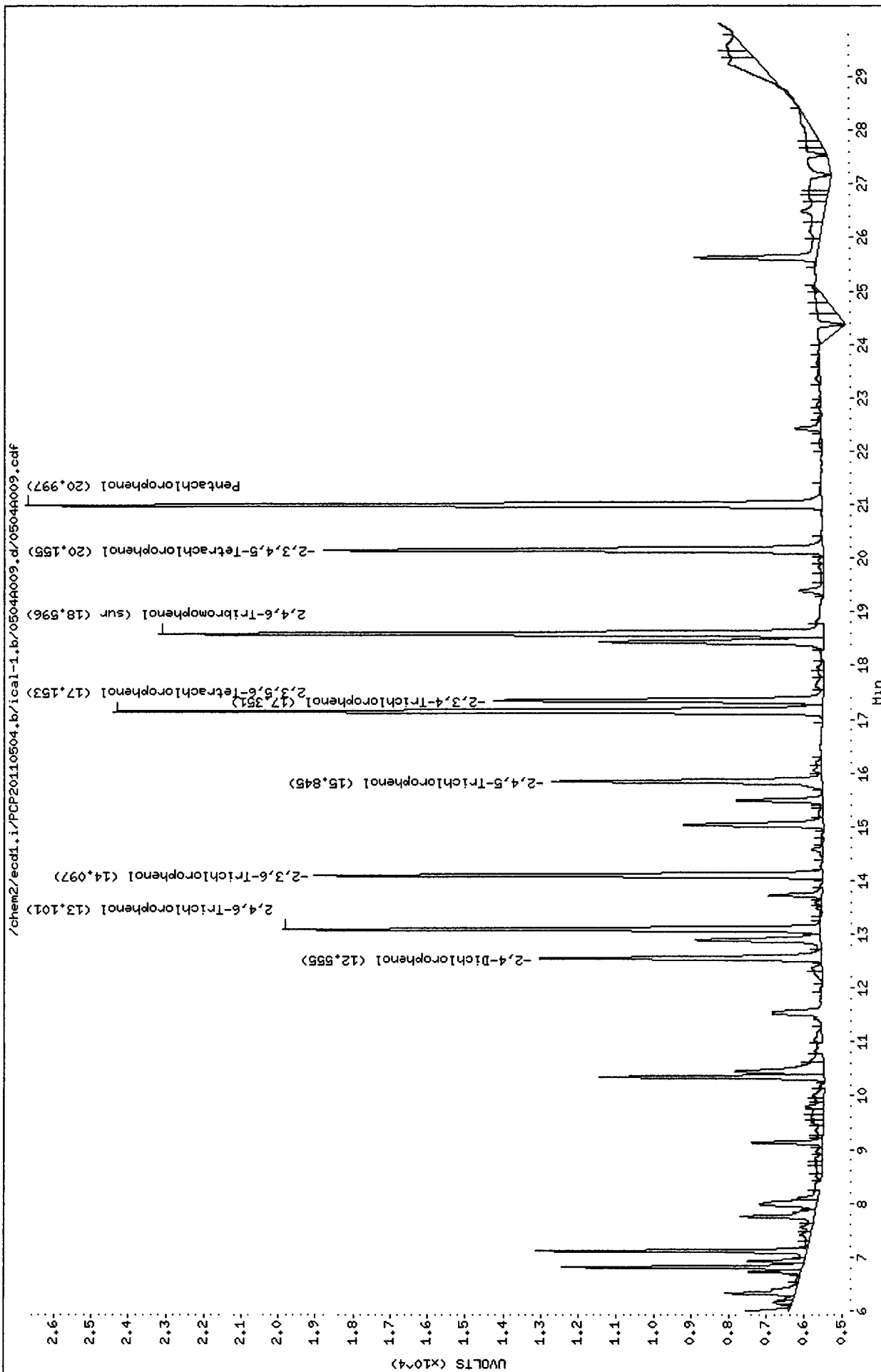




Data File: /chem2/ecd1.i/PCP20110504.b/ical-1.b/0504A009.d
Date : 04-MAY-2011 13:56
Client ID:
Sample Info: PCPD
Purge Volume: 500.0
Column phase: STX CLP1

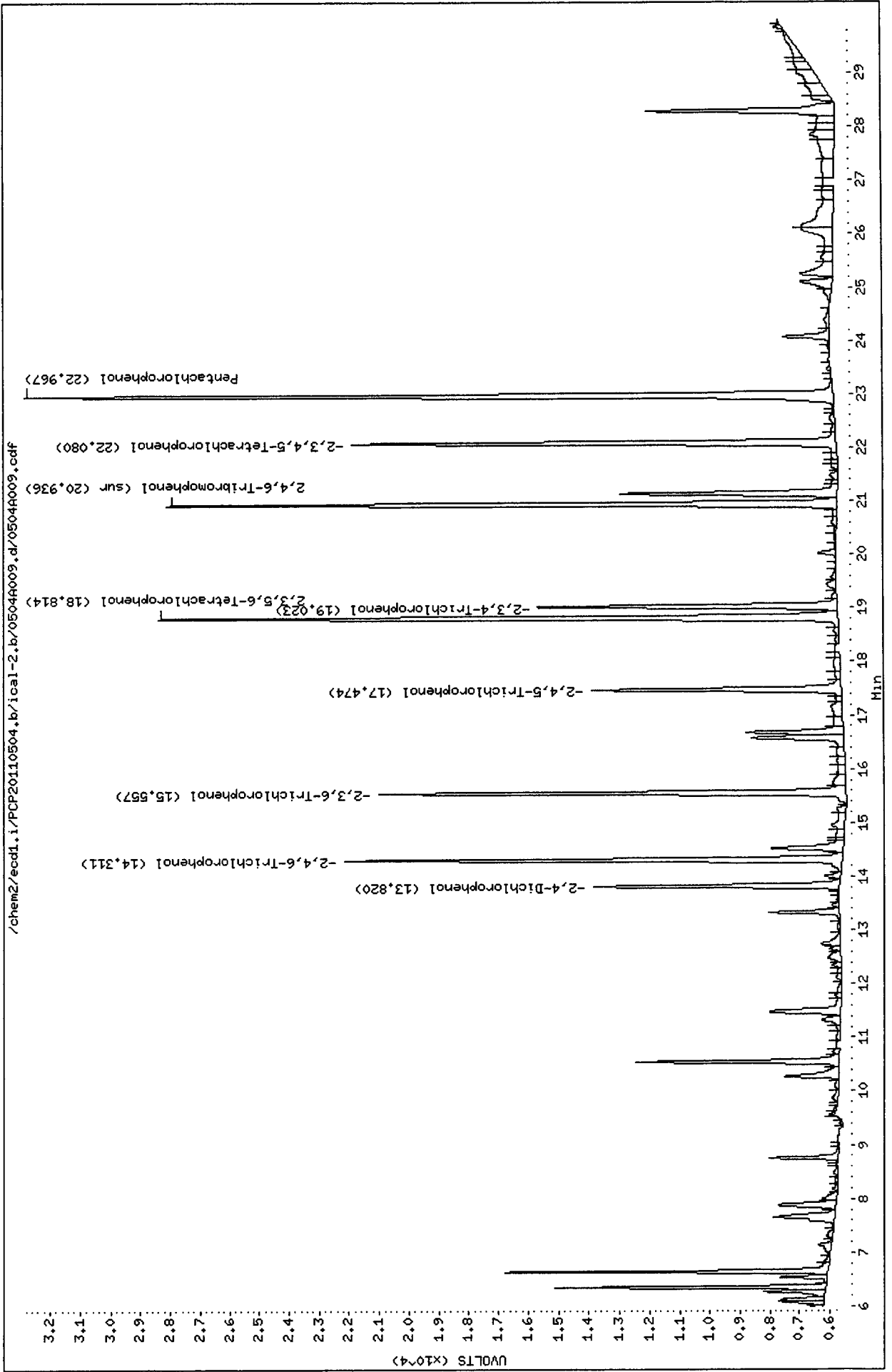
Instrument: ecd1.i

Operator: ar
Column diameter: 0.53



Data File: /chem2/ecd1.i/PCP20110504.b/ical-2.b/0504A009.d
Date : 04-MAY-2011 13:56
Client ID:
Sample Info: PCPD
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: ecd1.i
Operator: ar
Column diameter: 0.53



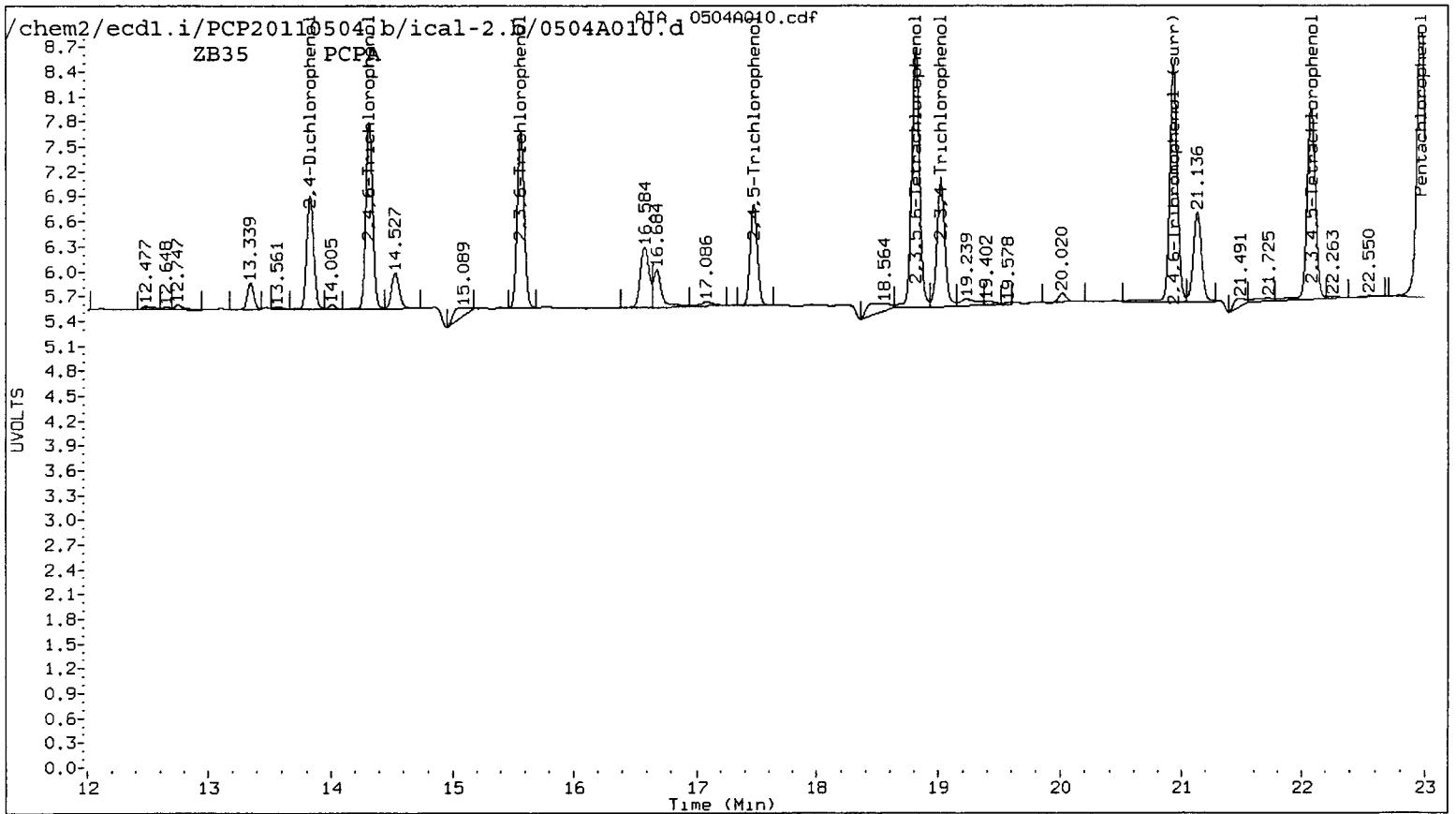
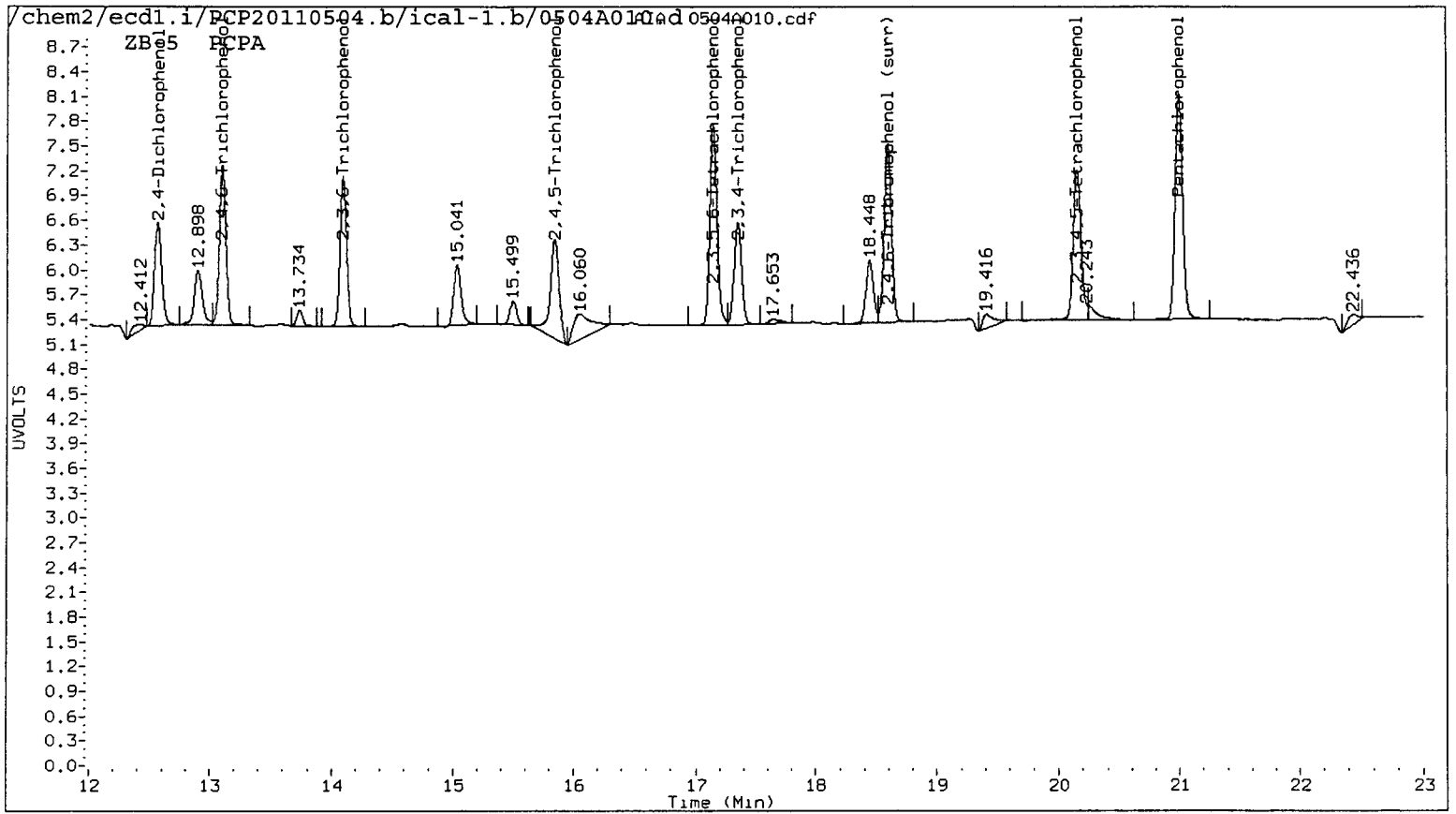
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

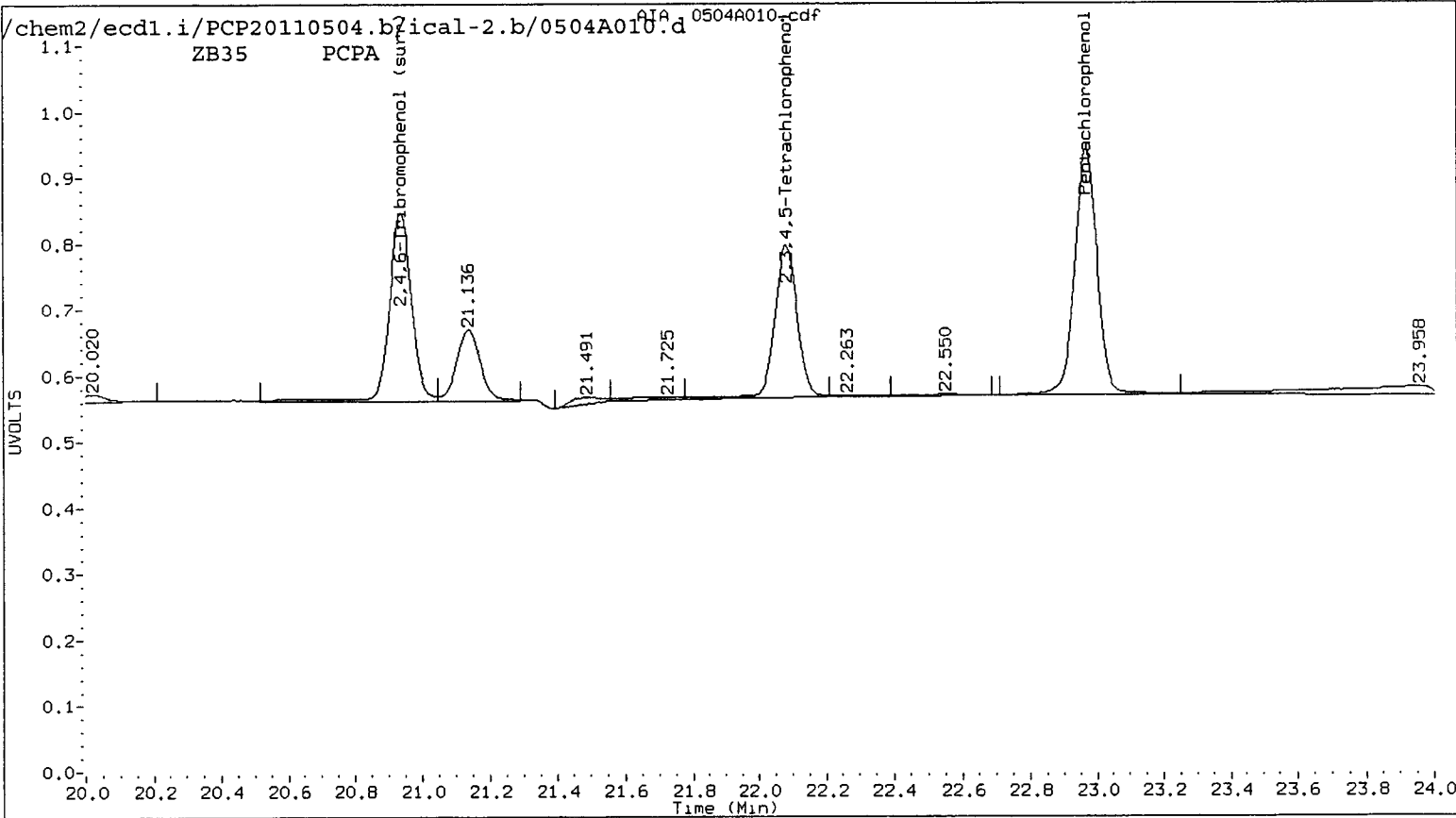
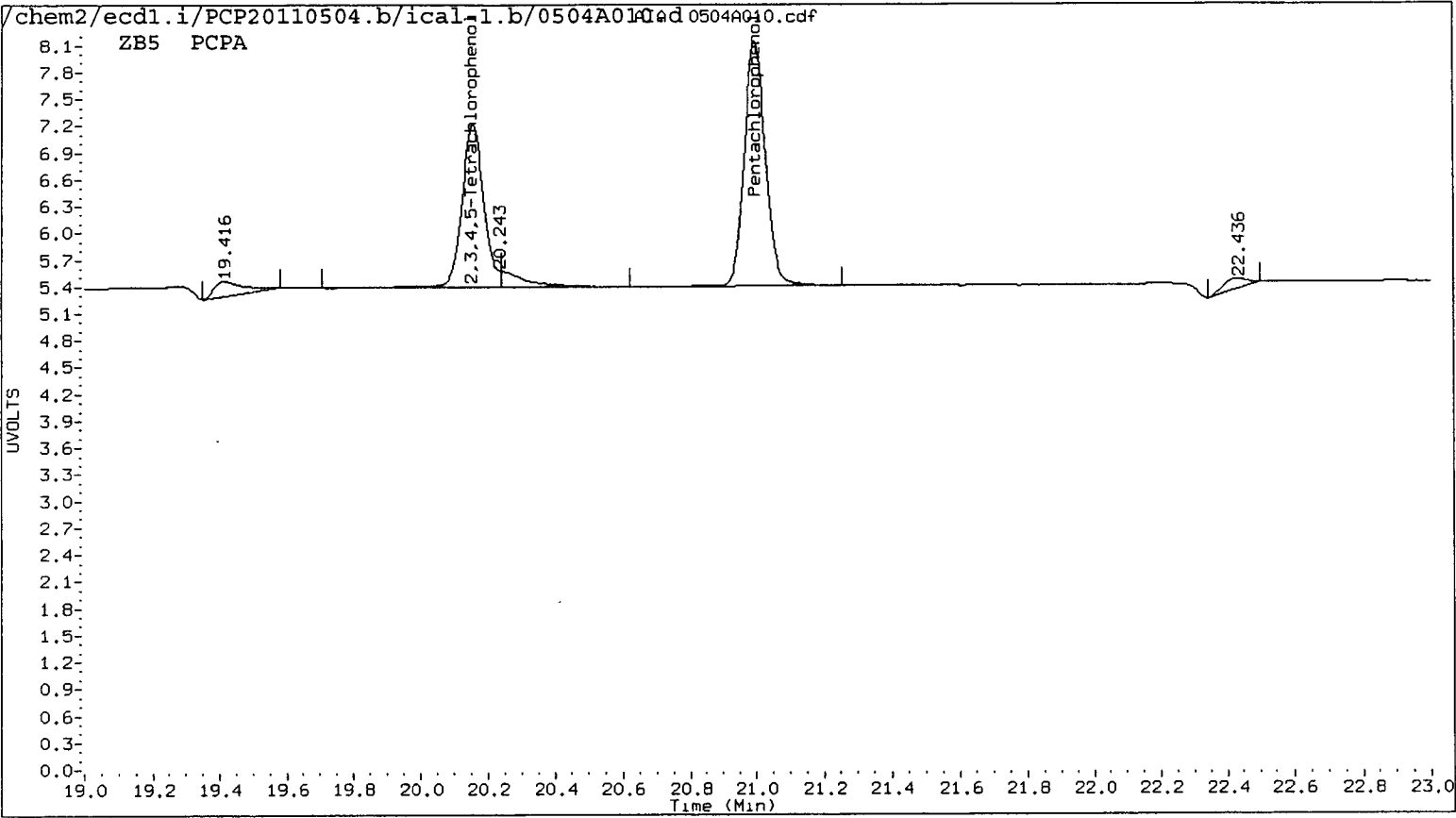
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A010.d Client ID:
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 14:32
 Compound Sublist: all Report Date: 05/06/2011 10:51
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.000	0.002	61392	22.968	0.001	89214	3.0469	3.1680	3.9	Pentachlorophenol
13.104	0.003	38202	14.314	0.003	45432	3.1383	3.1346	0.1	2,4,6-Trichlorophenol
14.100	0.003	35647	15.560	0.003	43844	3.1126	3.0504	2.0	2,3,6-Trichlorophenol
15.849	0.004	30350	17.477	0.003	25938	4.0490	3.2039	23.3	2,4,5-Trichlorophenol
17.355	0.004	26413	19.025	0.002	34482	3.1612	3.3552	6.0	2,3,4-Trichlorophenol
17.155	0.003	50484	18.816	0.002	70494	2.9860	3.2133	7.3	2,3,5,6-Tetrachlorophenol
20.157	0.002	42060	22.082	0.002	54250	3.2399	3.2204	0.6	2,3,4,5-Tetrachlorophenol
12.560	0.005	25994	13.824	0.004	28101	33.2484	32.9534	0.9	2,4-Dichlorophenol
18.598	0.002	45851	20.937	0.001	66939	2.9	3.2	8.9	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	11.6	12.7

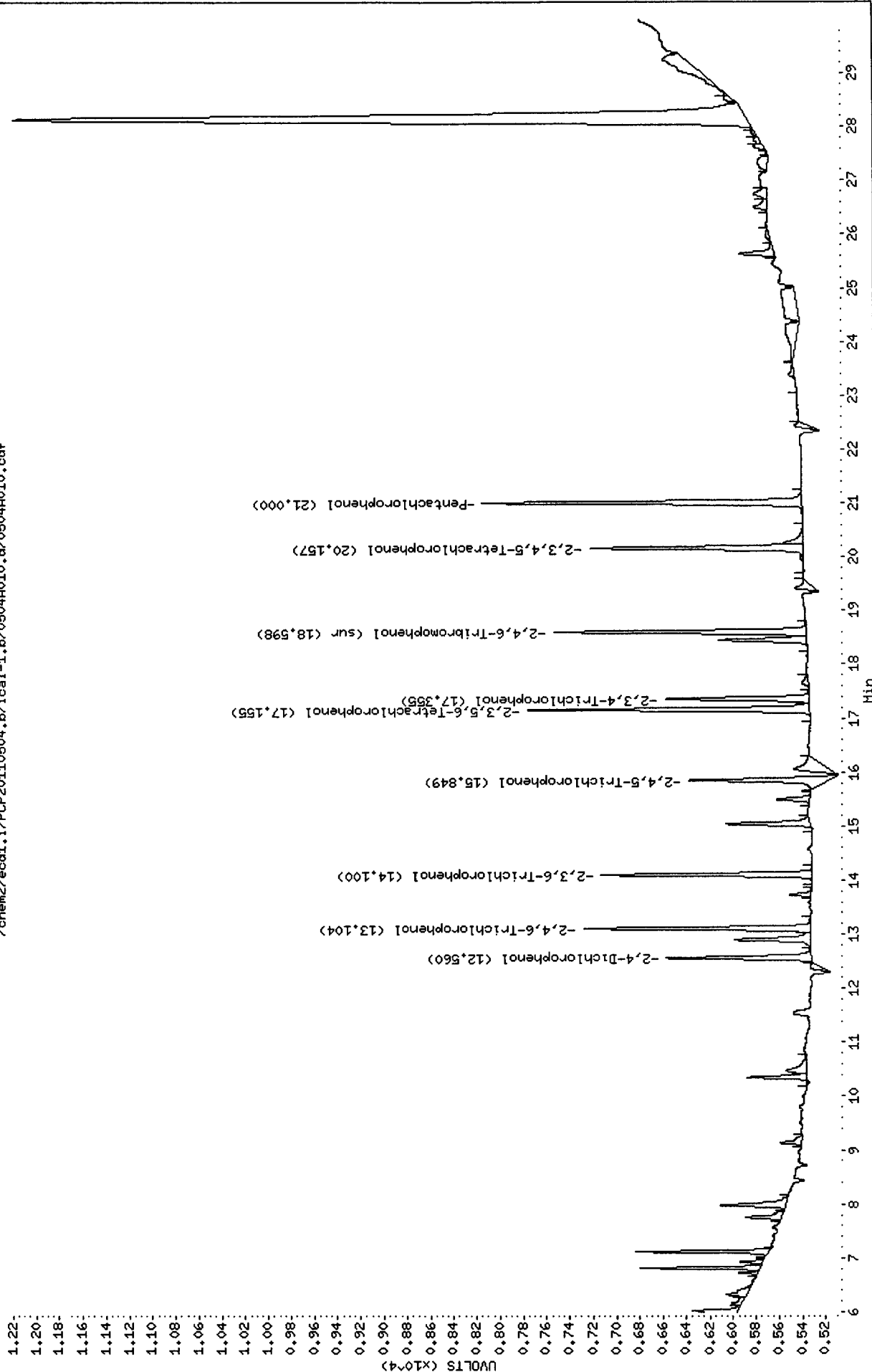




Data File: /chem2/ecdl1.i/PCF20110504.b/ical-1.b/9504A010.d
Date : 04-MAY-2011 14:32
Client ID:
Sample Info: PCPA
Purge Volume: 500.0
Column phase: STX CLP1

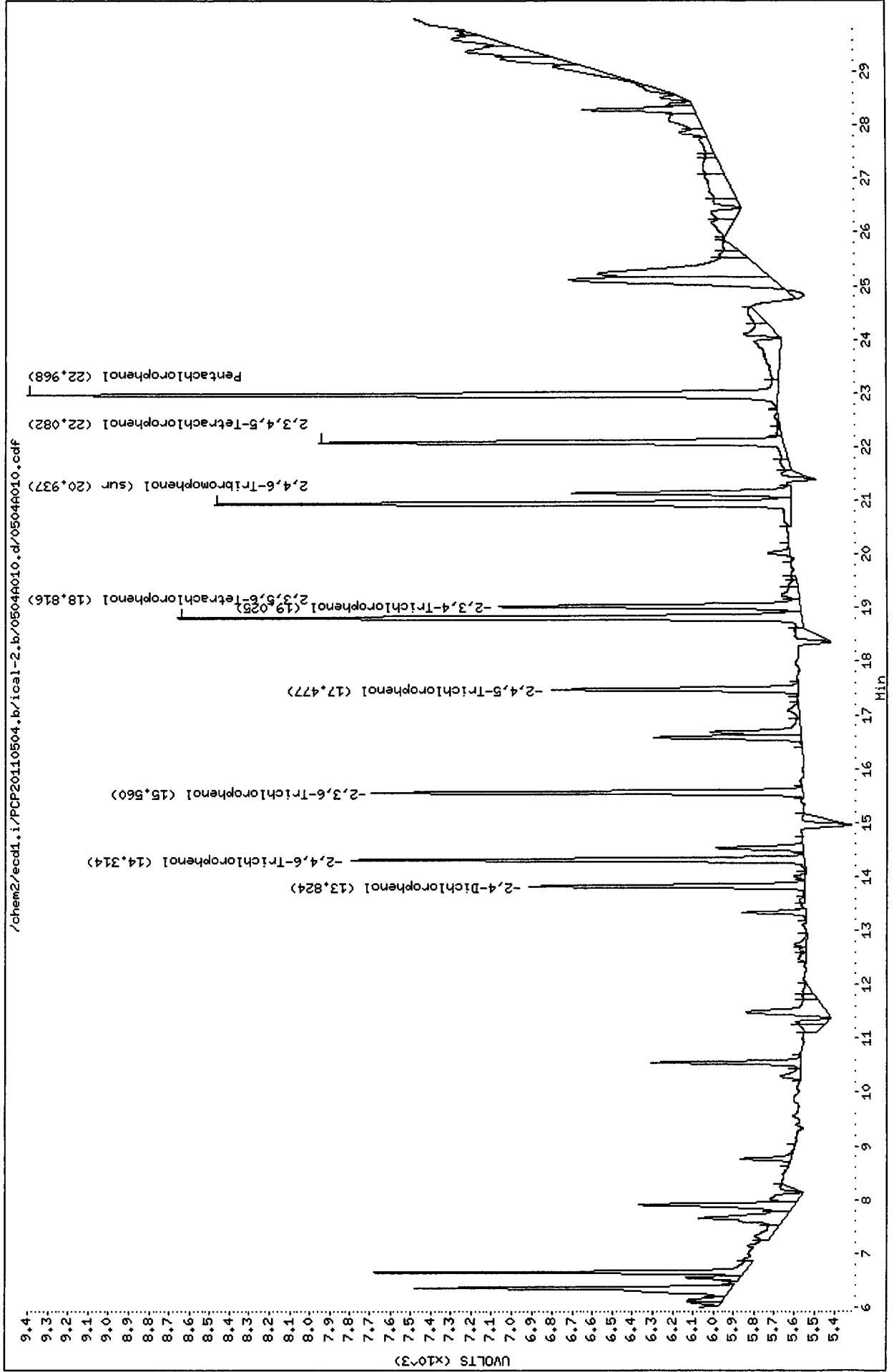
Instrument: eccl1.i
Operator: ar
Column diameter: 0.53

/chem2/ecdl1.i/PCF20110504.b/ical-1.b/9504A010.d/9504A010.cdf



Data File: /chem2/ecdl.i/PCP20110504.b/1cal-2.b/0504A010.d
Date : 04-MAY-2011 14:32
Client ID:
Sample Info: PCPA
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: eccl.i
Operator: ar
Column diameter: 0.53



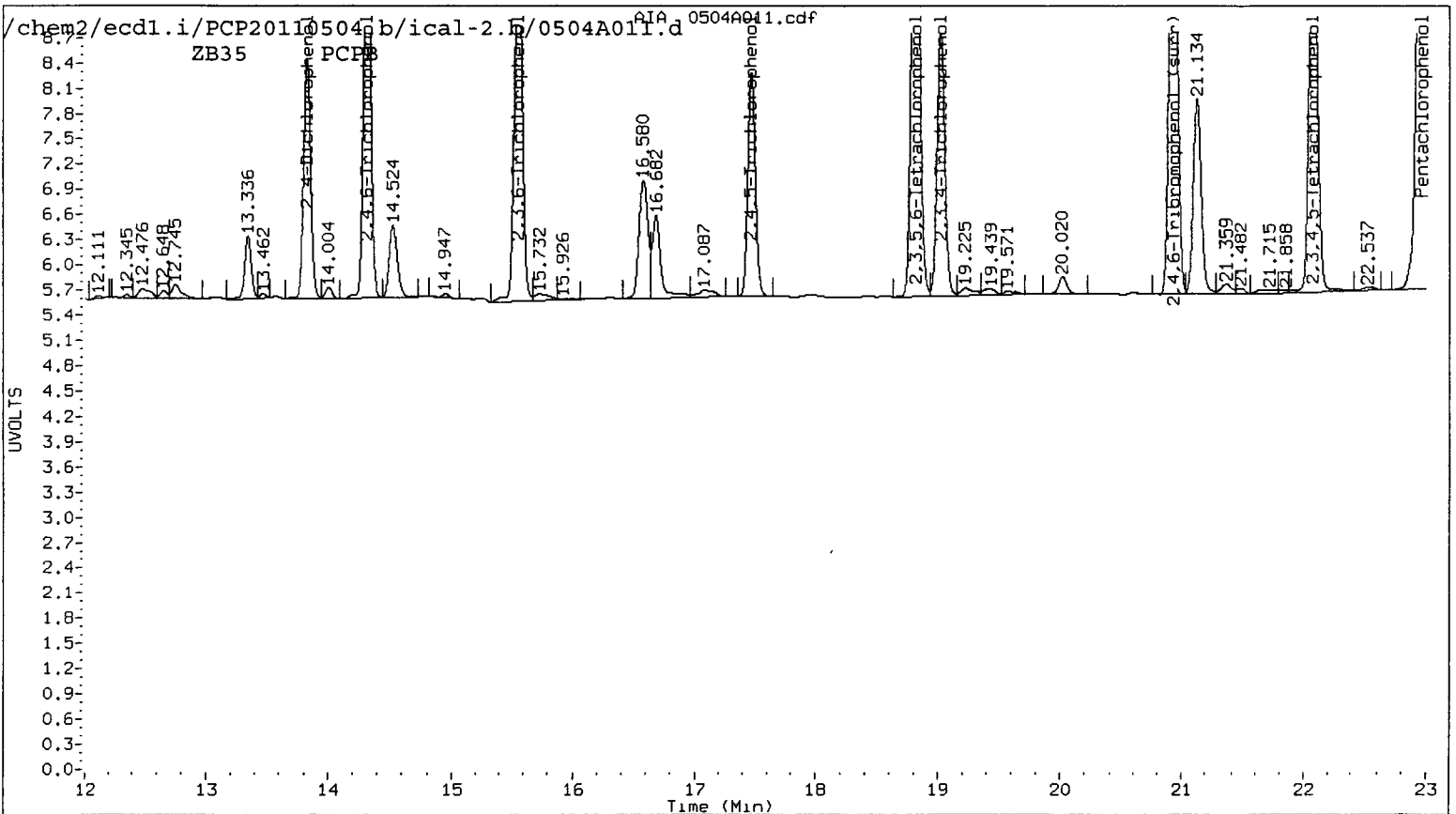
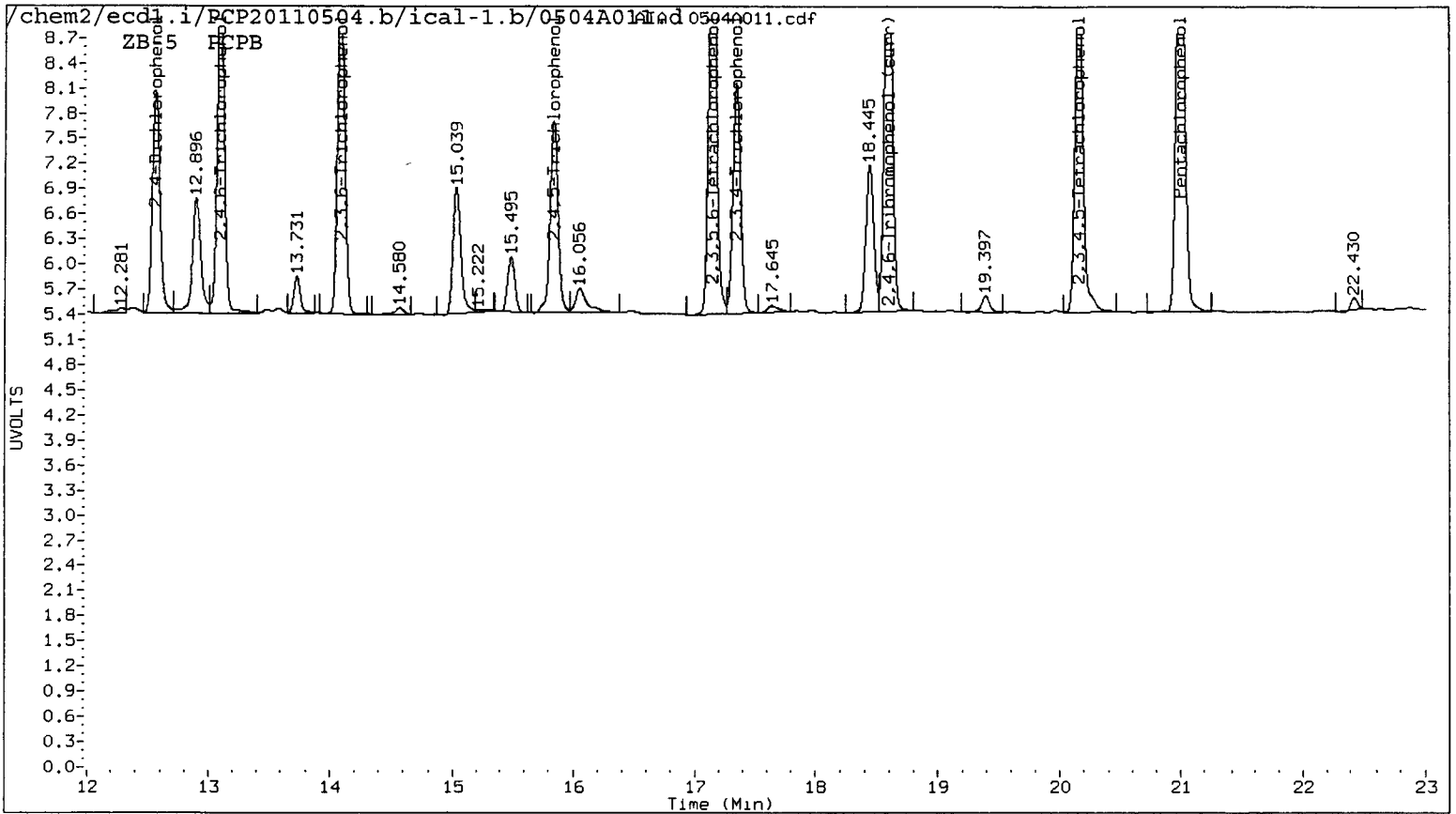
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

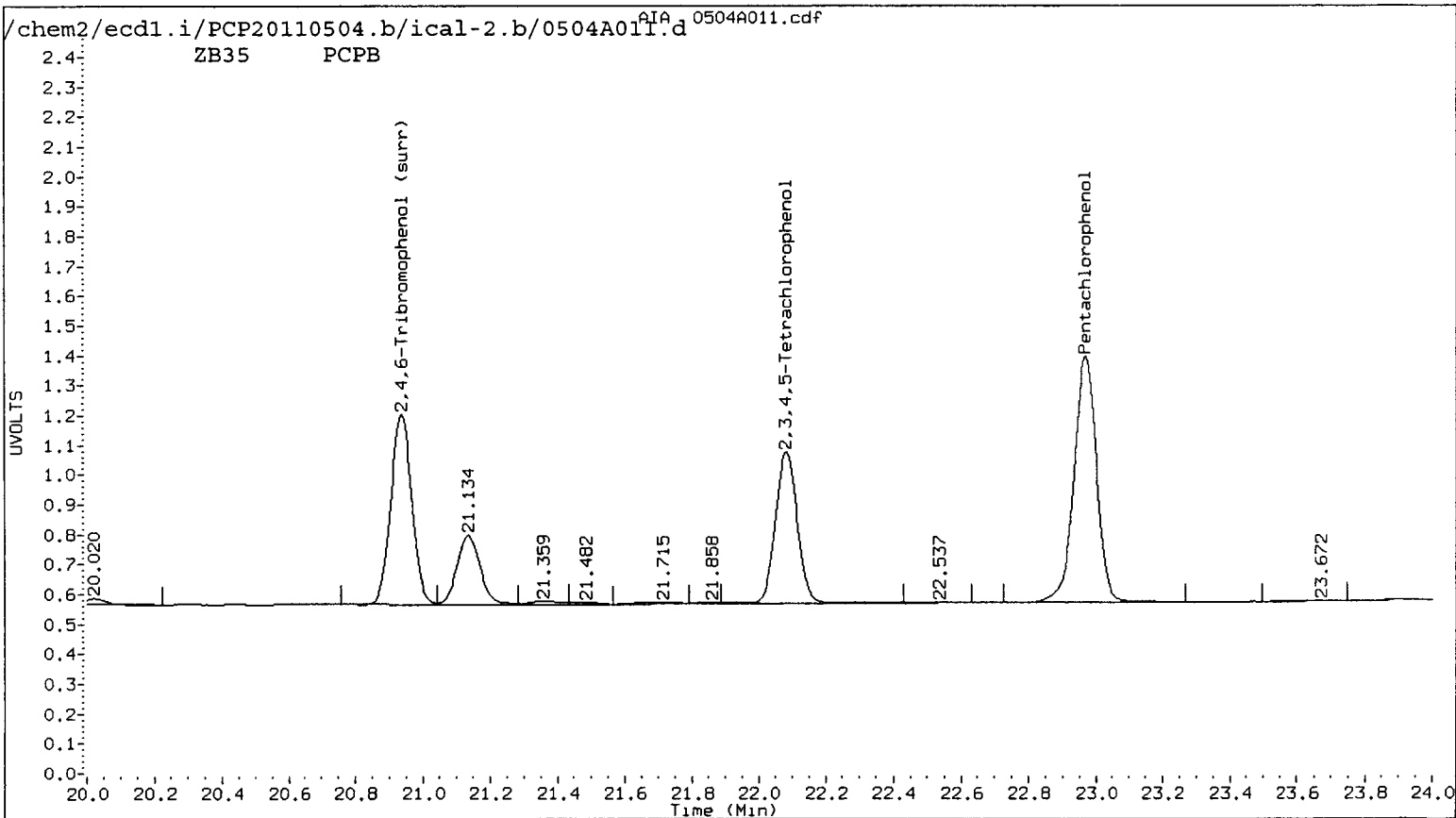
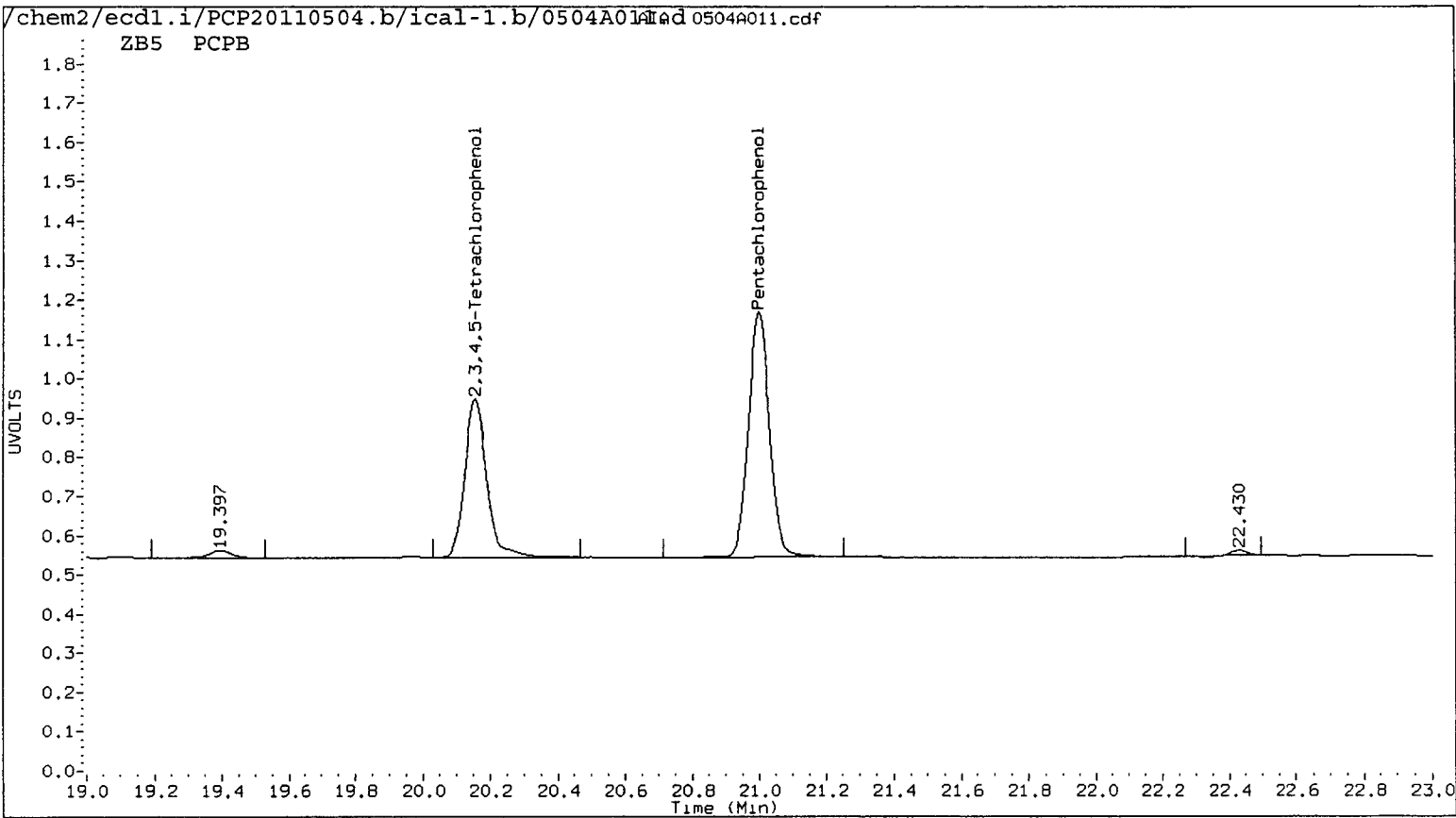
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A011.d Client ID:
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 15:08
 Compound Sublist: all Report Date: 05/06/2011 10:51
 Instrument: ecd1.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.998	0.001	139728	22.967	0.000	196299	6.9347	6.9706	0.5	Pentachlorophenol
13.101	0.000	86469	14.311	0.000	101246	7.1035	6.9855	1.7	2,4,6-Trichlorophenol
14.097	0.000	80111	15.557	0.000	101902	6.9950	7.0896	1.3	2,3,6-Trichlorophenol
15.845	0.000	50514	17.475	0.001	57517	6.8698	7.1047	3.4	2,4,5-Trichlorophenol
17.352	0.001	59492	19.024	0.001	71137	7.1202	7.0819	0.5	2,3,4-Trichlorophenol
17.153	0.000	116029	18.814	0.000	150373	6.8629	6.8545	0.1	2,3,5,6-Tetrachlorophenol
20.156	0.001	92328	22.081	0.001	117798	7.1121	7.1314	0.3	2,3,4,5-Tetrachlorophenol
12.557	0.002	56009	13.821	0.001	60102	74.6182	73.7791	1.1	2,4-Dichlorophenol
18.596	0.000	105601	20.936	0.000	138254	6.7	6.6	2.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

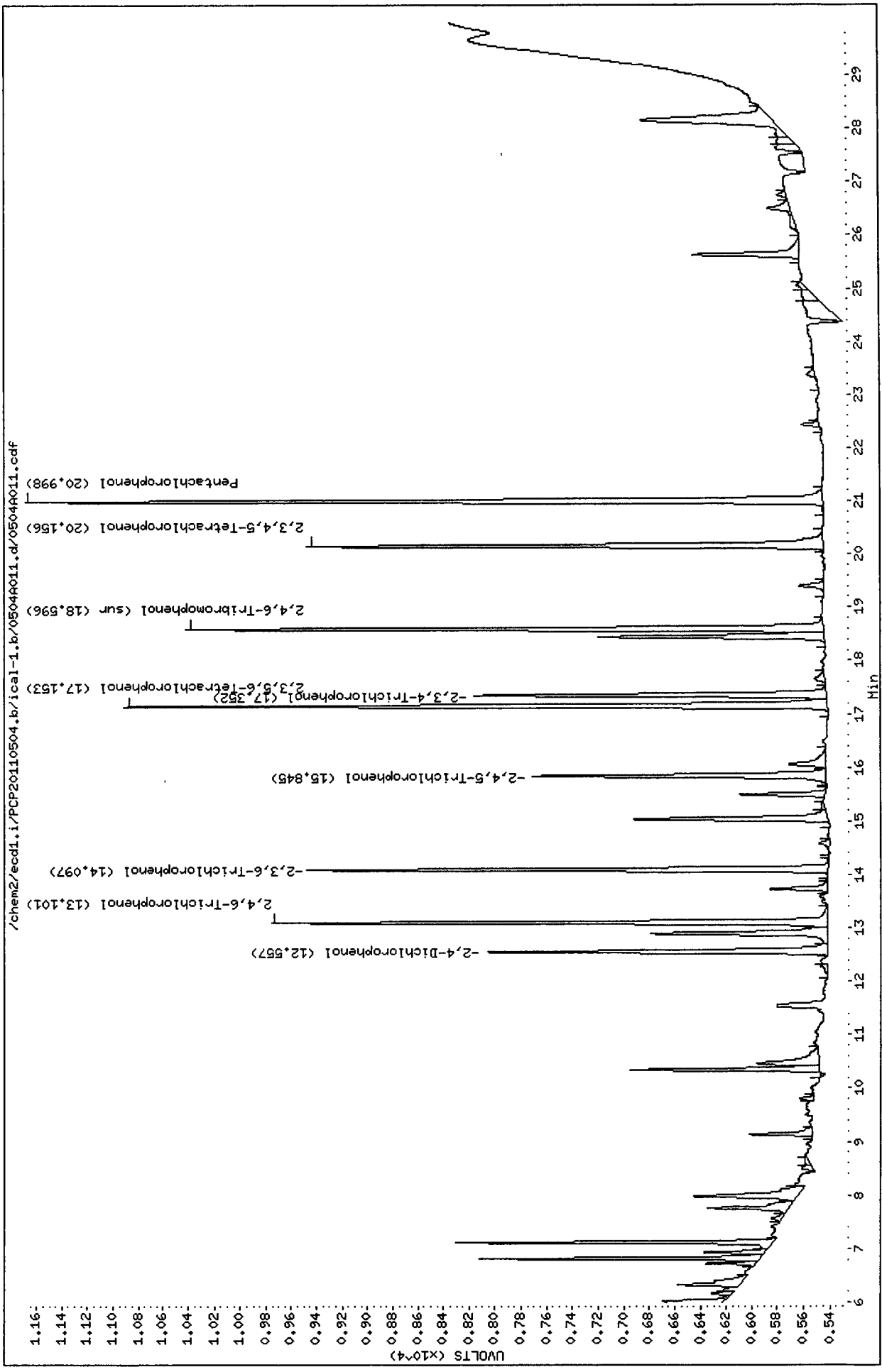
COMPOUND	Col1	Col2
2,4,6-TBP (surr)	26.8	26.3





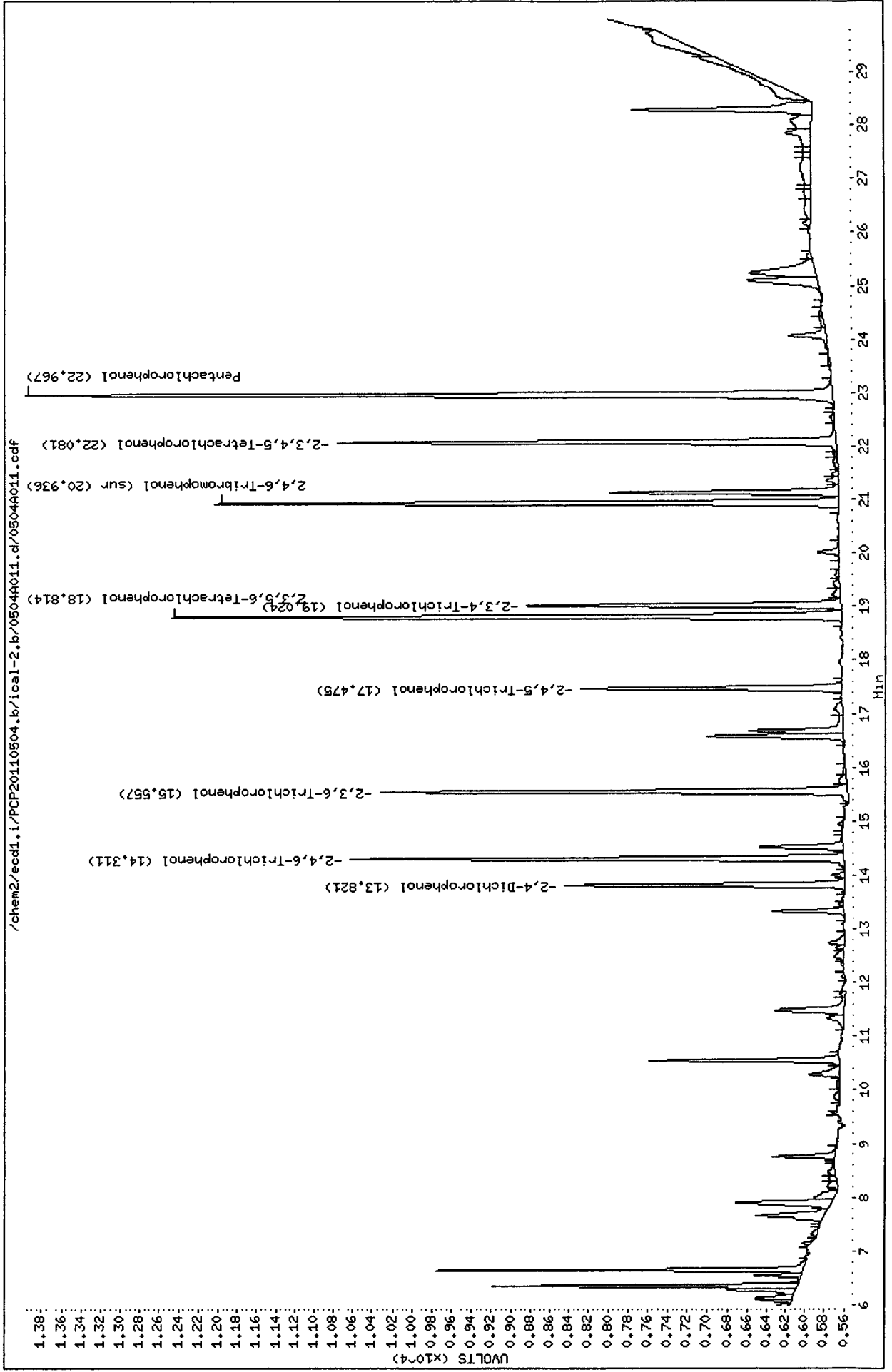
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Date : 04-MAY-2011 15:08
Client ID:
Sample Info: PCPB
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecdl1.i
Operator: ar
Column diameter: 0.53



Data File: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A011.d
Date : 04-MAY-2011 15:08
Client ID:
Sample Info: PCPB
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: ecdl.i
Operator: ar
Column diameter: 0.53



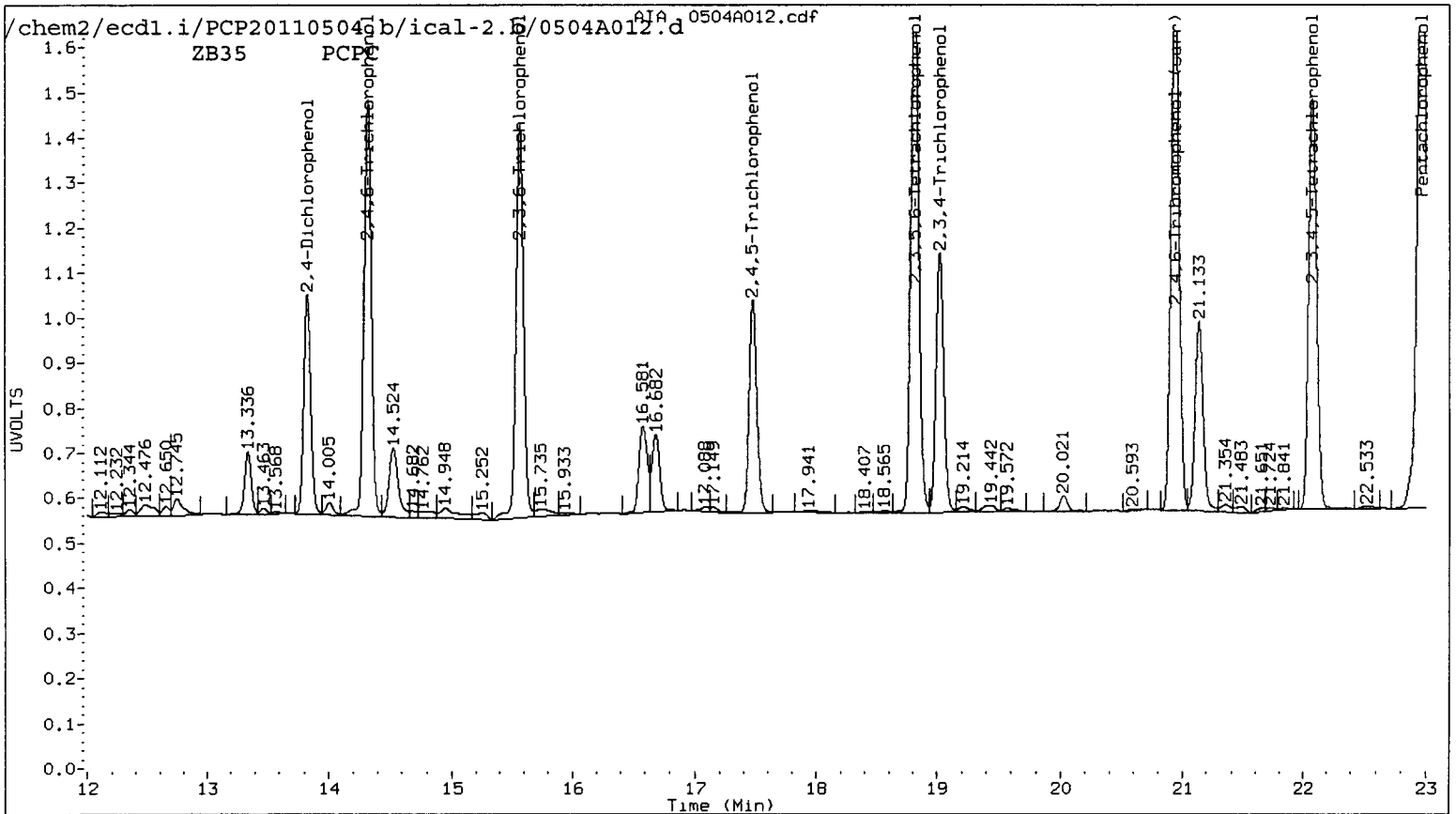
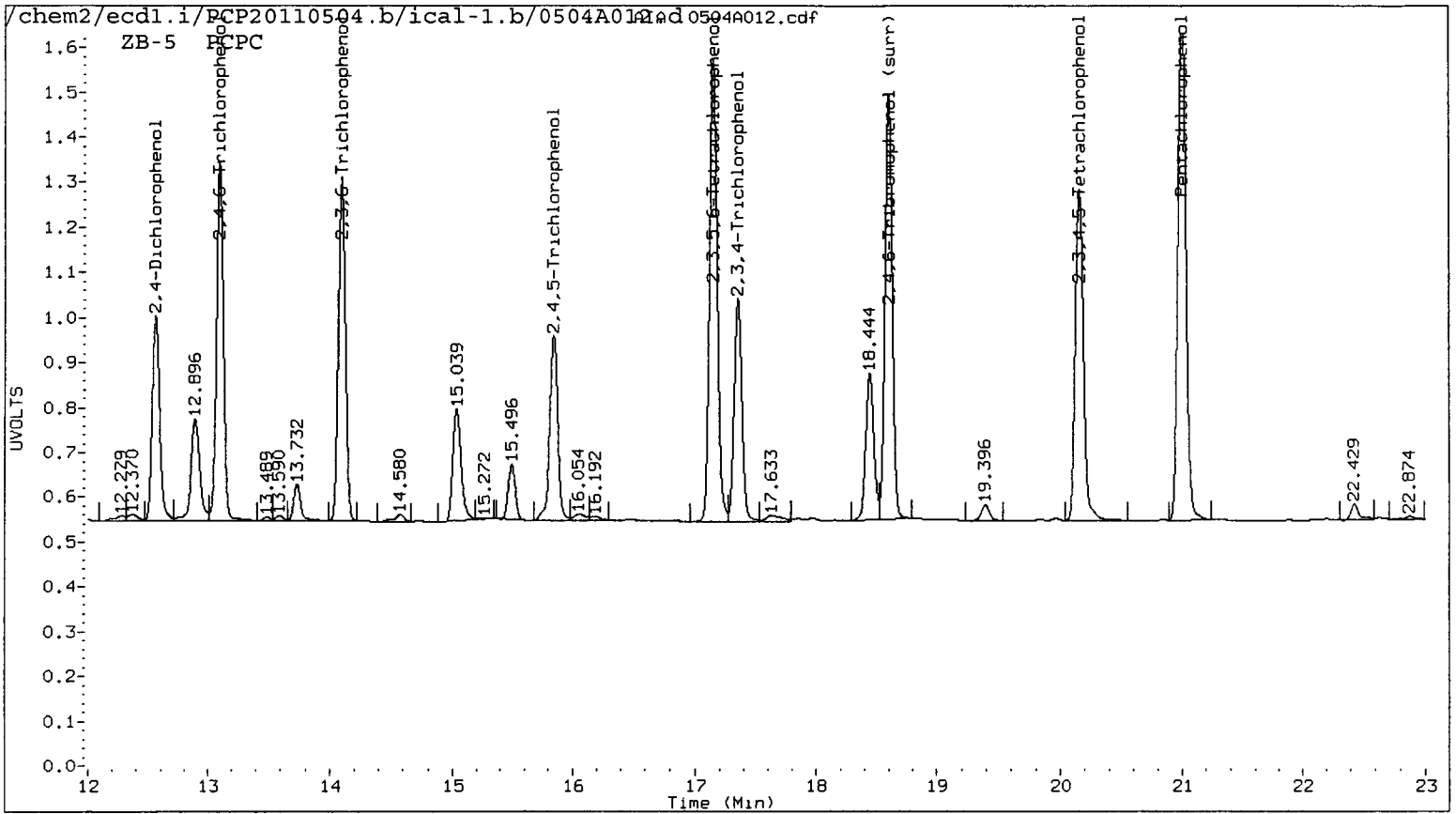
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

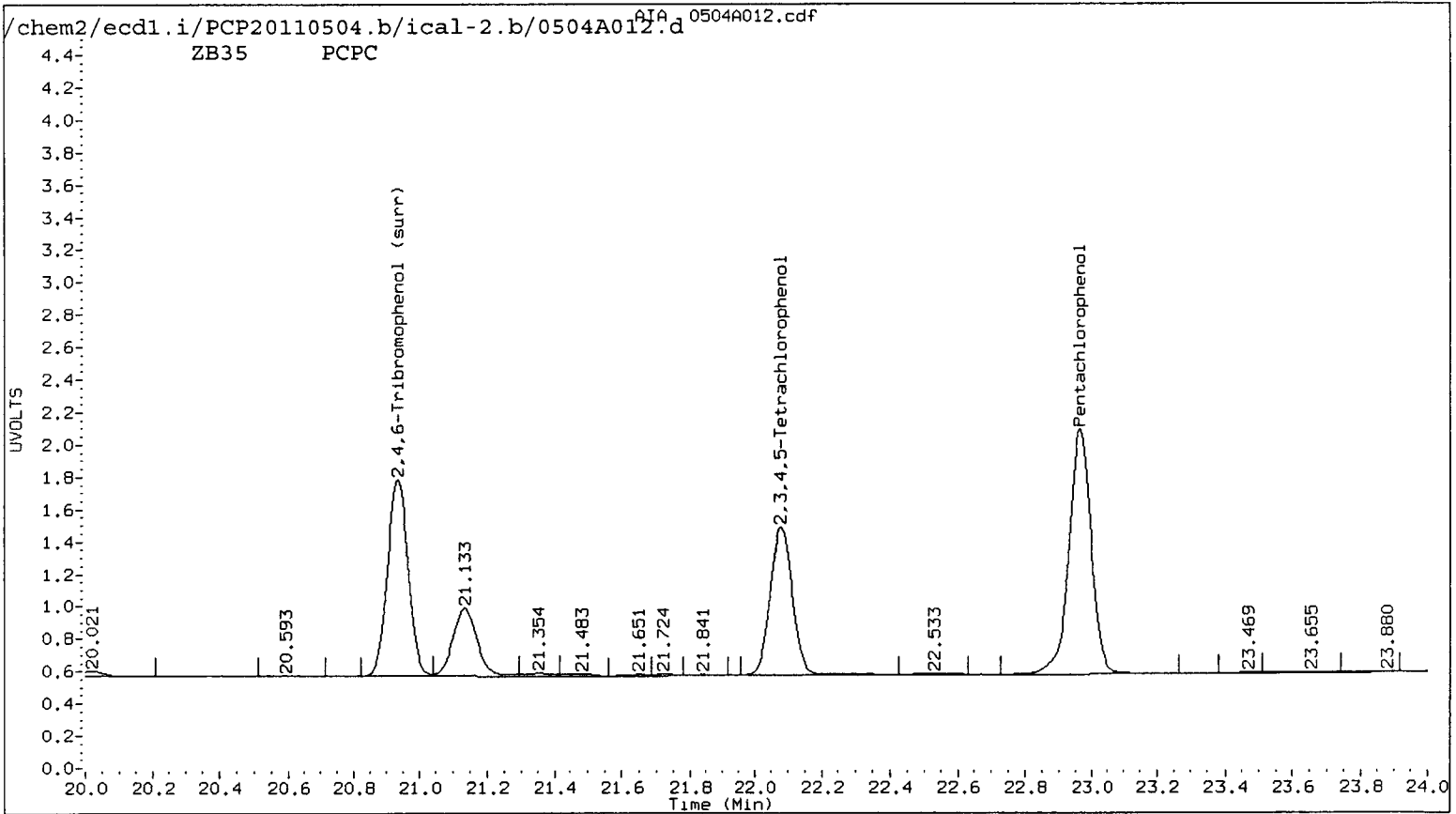
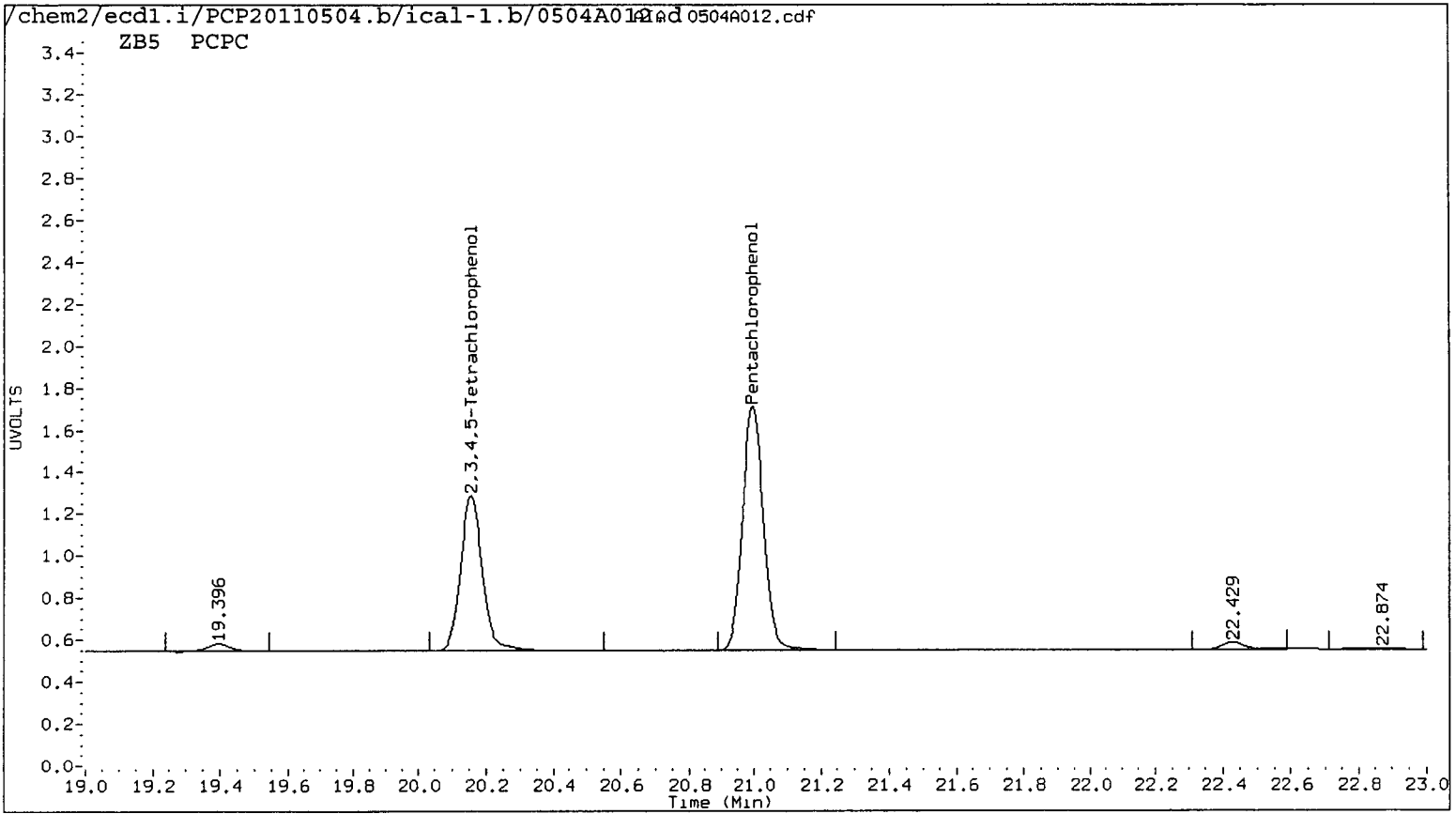
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 Compound Sublist: all Report Date: 05/06/2011 10:51
 Instrument: ecd1.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.998	0.000	259764	22.967	0.000	361971	12.8921	12.8537	0.3	Pentachlorophenol
13.102	0.001	159940	14.312	0.001	192050	13.1391	13.2505	0.8	2,4,6-Trichlorophenol
14.097	0.000	148290	15.558	0.001	189925	12.9481	13.2136	2.0	2,3,6-Trichlorophenol
15.846	0.001	92760	17.474	0.000	104692	13.1179	12.9318	1.4	2,4,5-Trichlorophenol
17.352	0.001	109723	19.023	0.000	129601	13.1321	13.3673	1.8	2,3,4-Trichlorophenol
17.153	0.001	218741	18.814	0.000	281810	12.9381	12.8458	0.7	2,3,5,6-Tetrachlorophenol
20.155	0.000	168443	22.080	0.000	208459	12.9754	12.9697	0.0	2,3,4,5-Tetrachlorophenol
12.556	0.001	99540	13.821	0.001	104374	140.2891	136.0517	3.1	2,4-Dichlorophenol
18.596	0.000	198567	20.936	0.000	266388	12.6	12.7	0.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	50.4	50.7

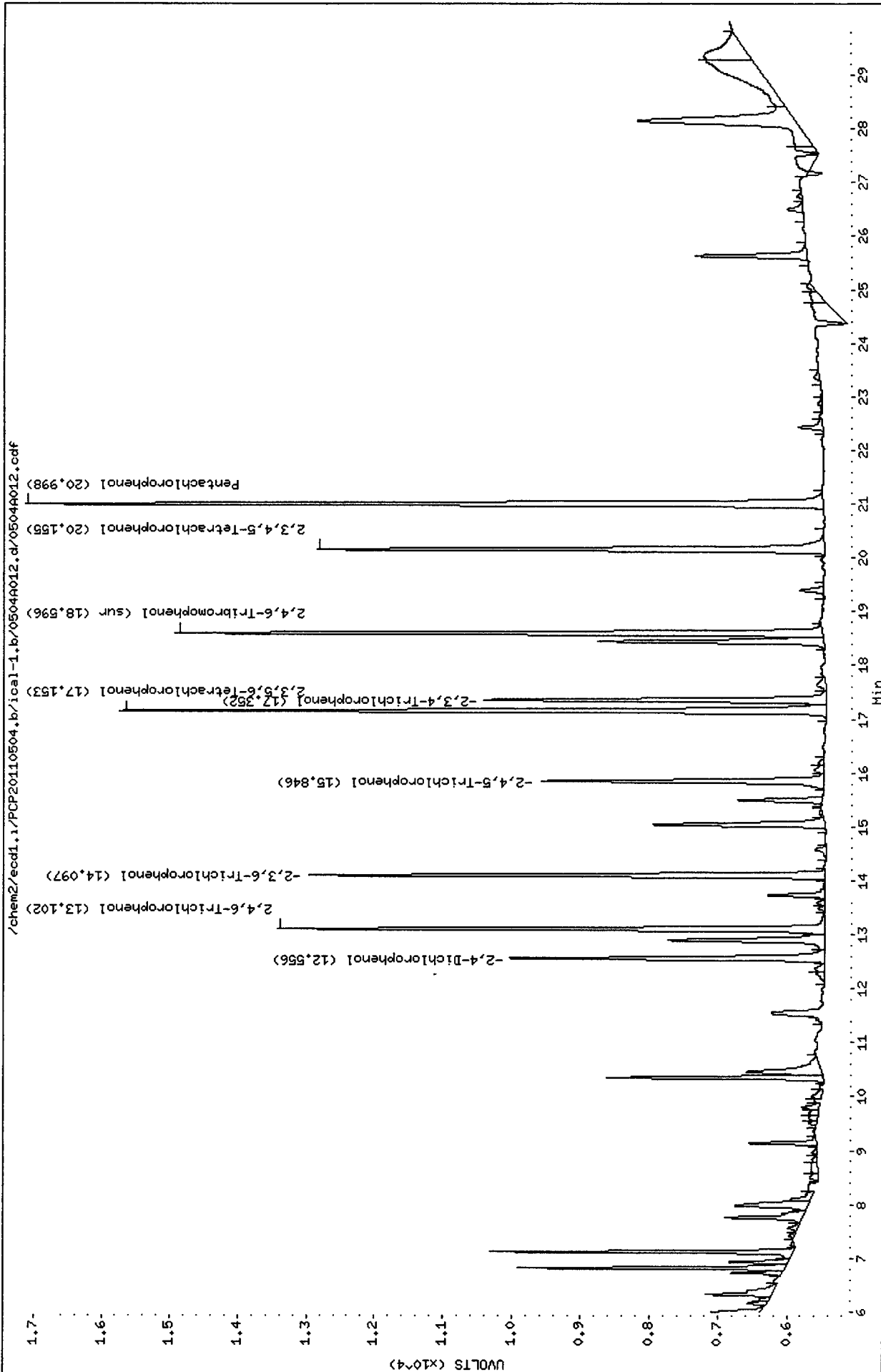




Data File: /chem2/ecdl1.1/PCP20110504.b/ical-1.b/0504A012.d
Date : 04-MAY-2011 15:44
Client ID:
Sample Info: PCPC
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: eccl1.i

Operator: ar
Column diameter: 0.53



Data File: /chem2/ecdl1/PCP20110504.b/ical-2.b/0504A012.d

Date : 04-MAY-2011 15:44

Client ID:

Sample Info: PCPC

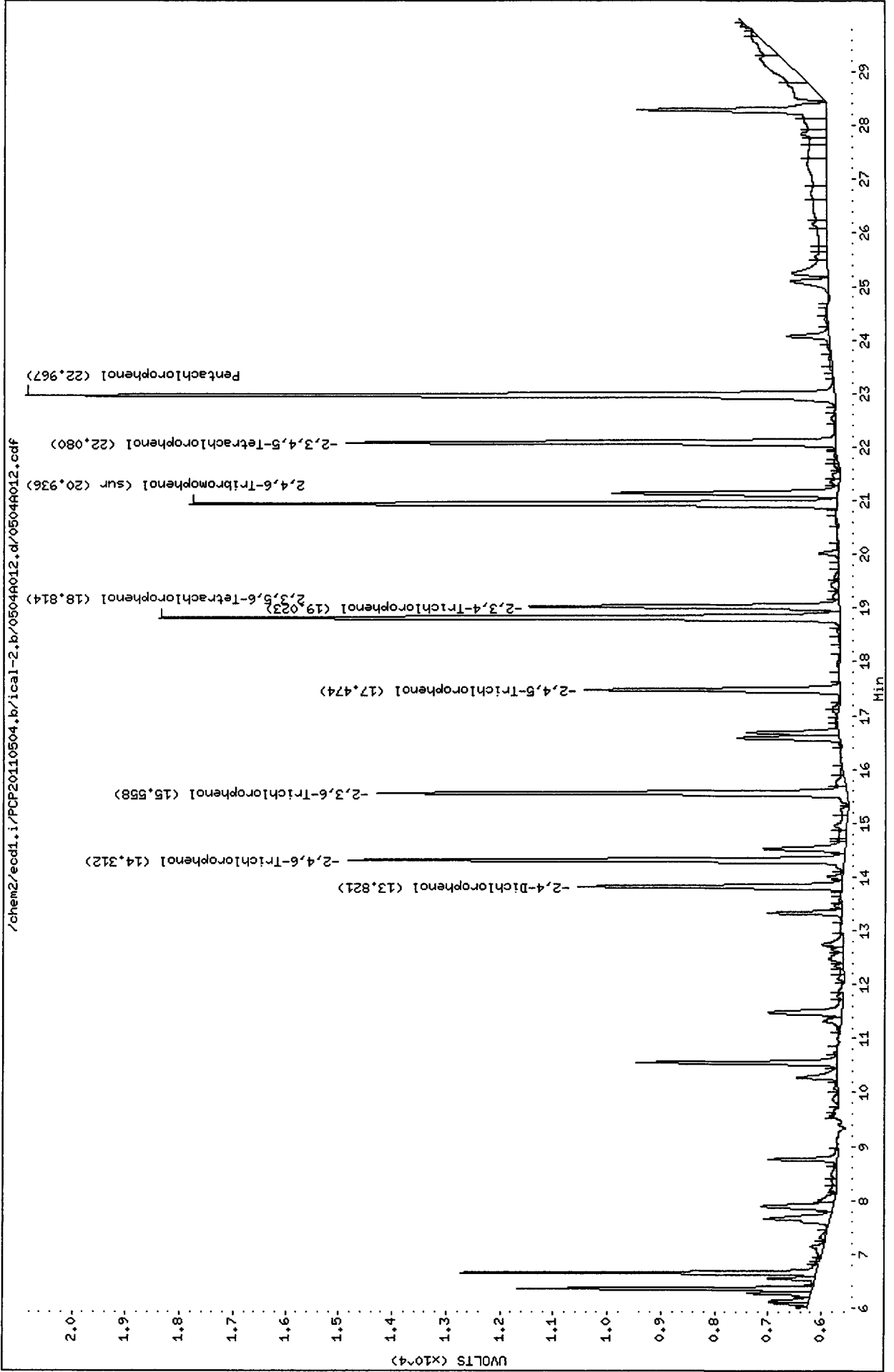
Purge Volume: 500.0

Column phase: STX CLP2

Instrument: ecdl.i

Operator: ar

Column diameter: 0.53



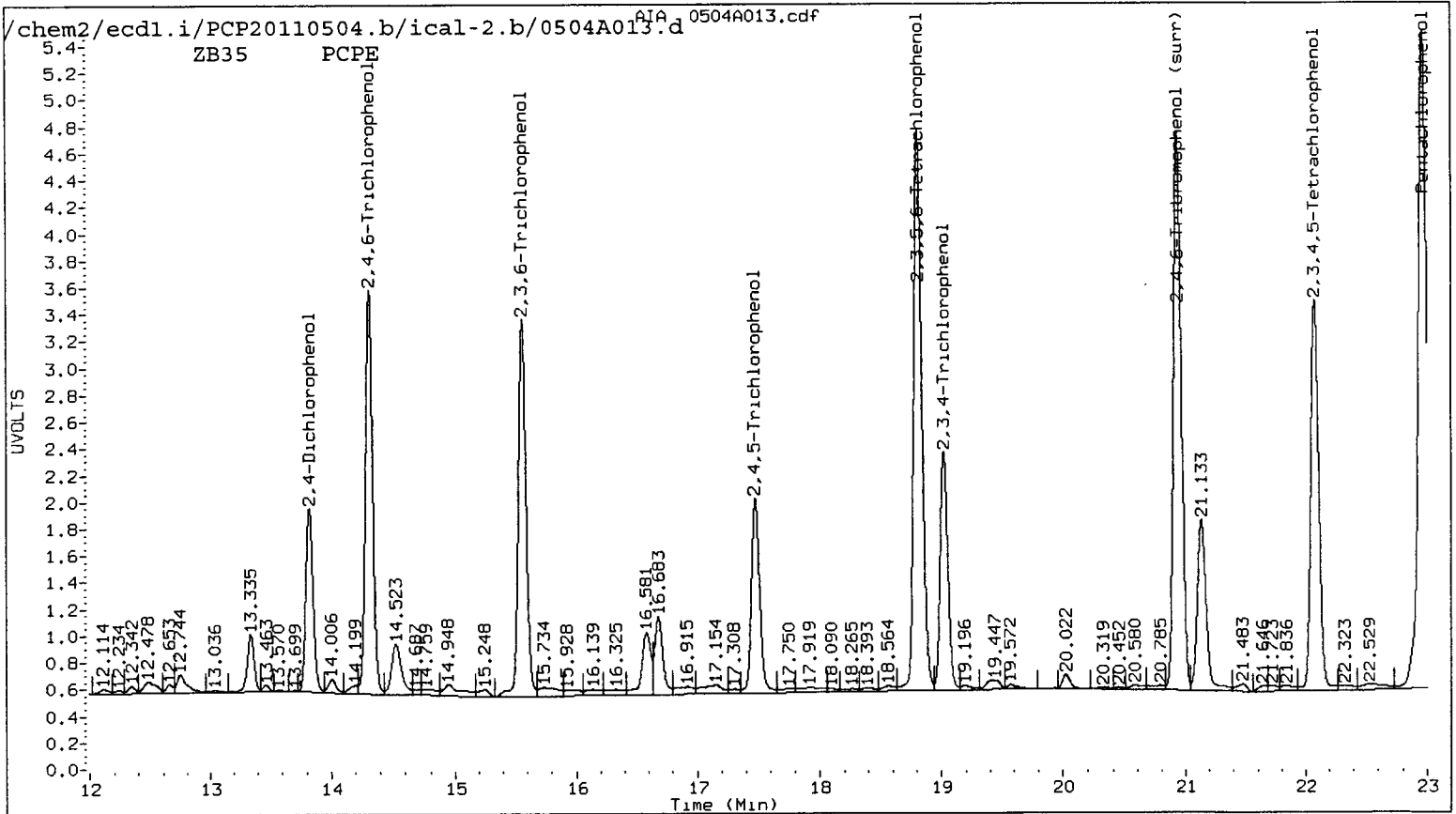
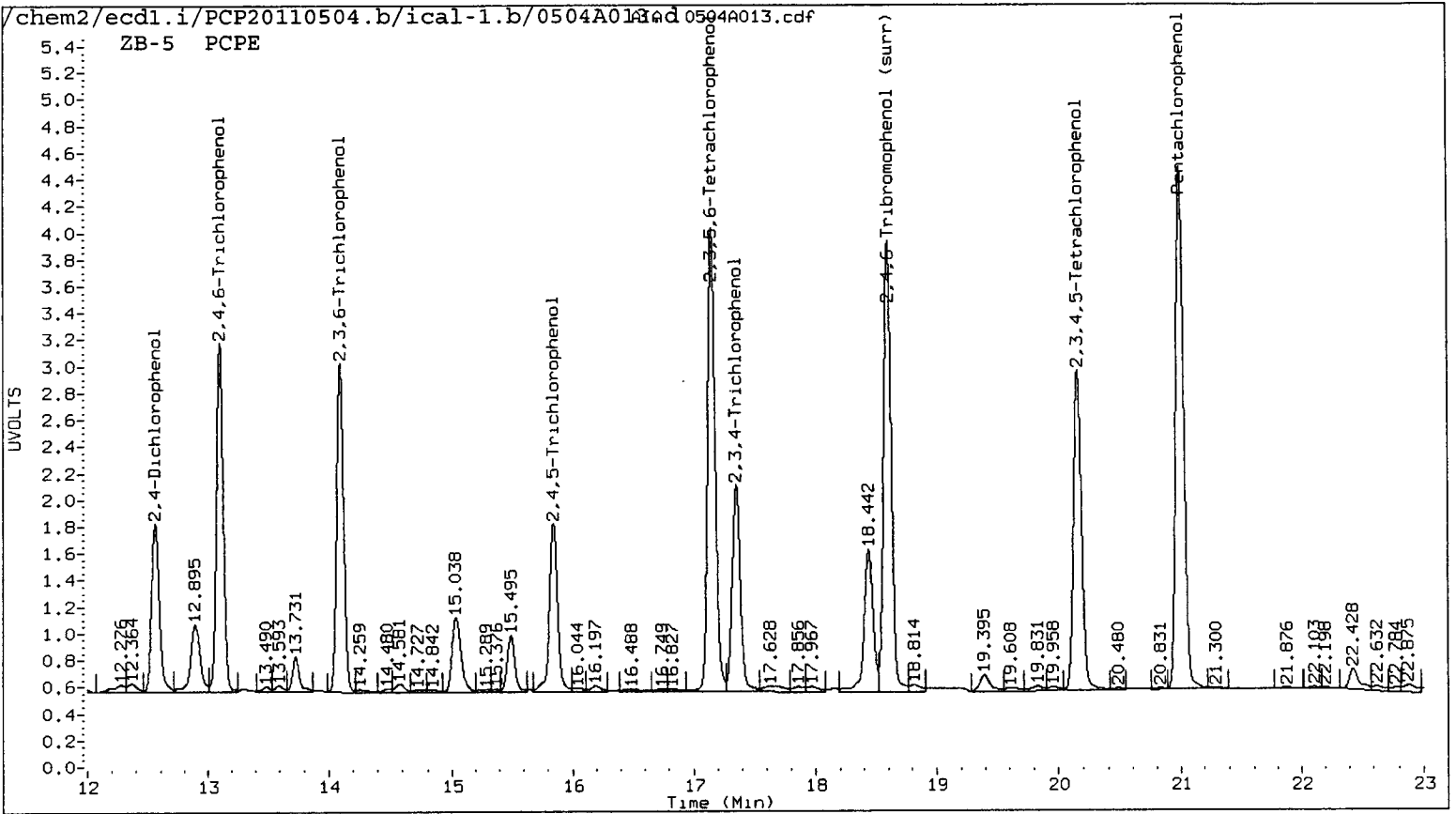
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/PCP20110504.b/ical-1.b/0504A013.d ARI ID: PCPE
 Data file 2: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A013.d Client ID:
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 16:21
 Compound Sublist: all Report Date: 05/06/2011 10:51
 Instrument: ecd1.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

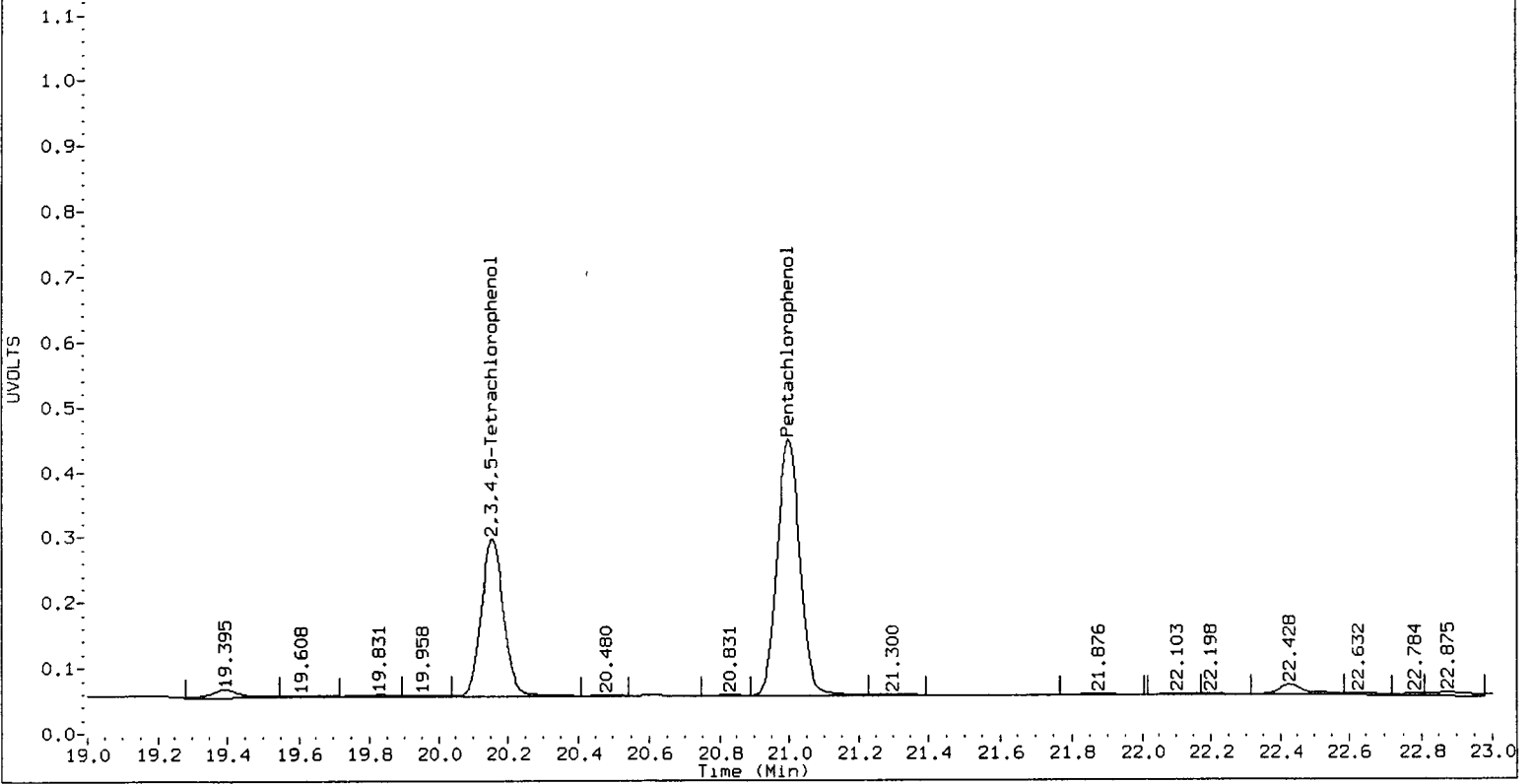
ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.998	0.001	889243	22.967	0.000	1223251	44.1330	43.4380	1.6	Pentachlorophenol
13.101	0.000	520607	14.312	0.001	615086	42.7681	42.4380	0.8	2,4,6-Trichlorophenol
14.097	0.000	496269	15.558	0.001	622220	43.3323	43.2897	0.1	2,3,6-Trichlorophenol
15.845	0.000	295231	17.475	0.001	344386	49.4200	42.5395	15.0	2,4,5-Trichlorophenol
17.352	0.000	356877	19.023	0.000	409120	42.7124	49.2172	14.2	2,3,4-Trichlorophenol
17.153	0.001	759088	18.814	0.000	953164	44.8986	43.4481	3.3	2,3,5,6-Tetrachlorophenol
20.155	0.000	548832	22.081	0.001	691341	42.2771	49.1918	15.1	2,3,4,5-Tetrachlorophenol
12.556	0.001	279617	13.821	0.001	297223	483.2915	485.7456	0.5	2,4-Dichlorophenol
18.596	0.001	728285	20.937	0.001	937307	46.3	44.6	3.7	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

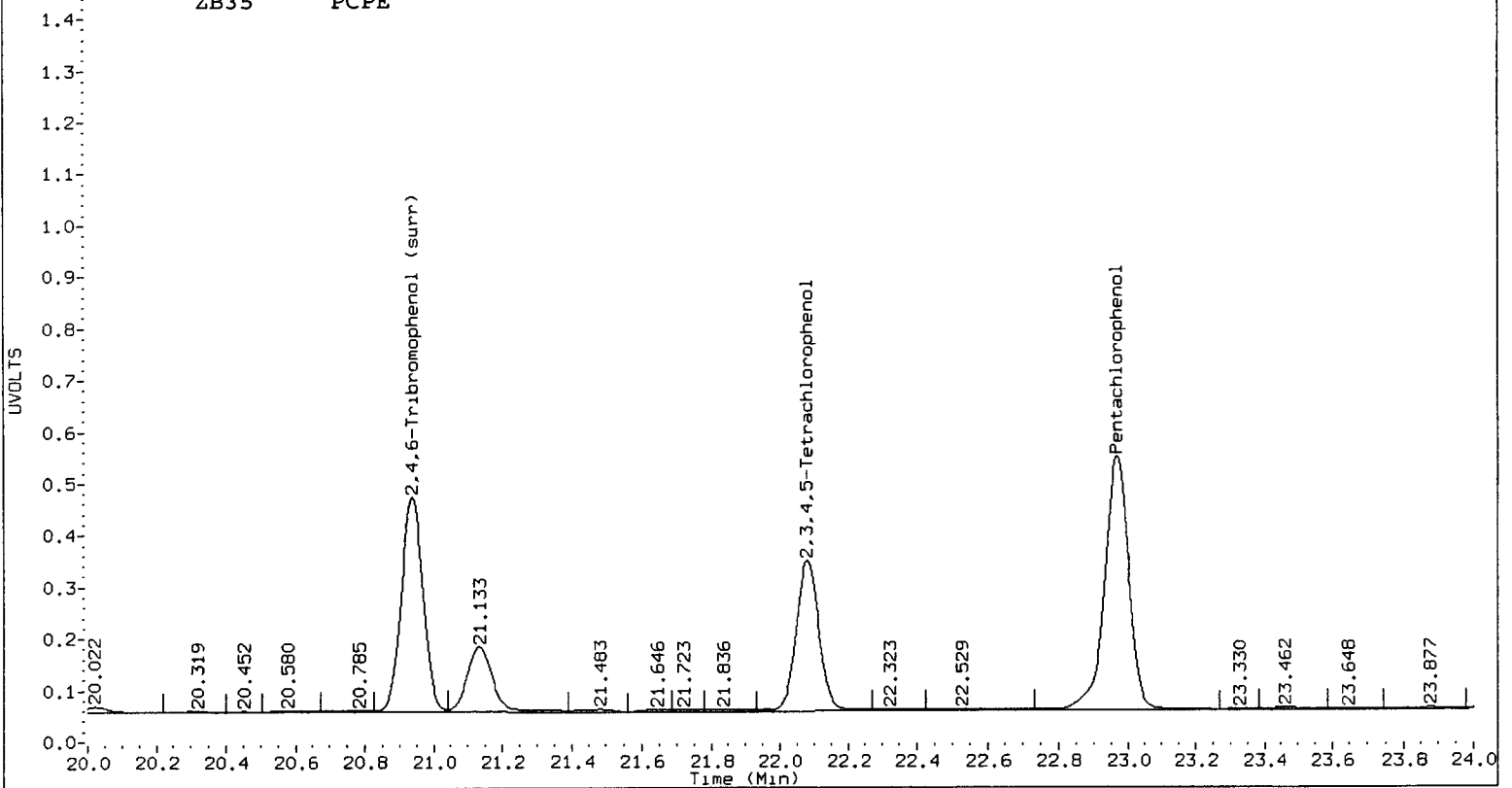
COMPOUND	Col1	Col2
2,4,6-TBP (surr)	185.0	178.3



ZB5 PCPE



ZB35 PCPE



Data File: /chem2/ecdl.i/PCP20110504.b/1cal-1.b/0504R013.d

Date : 04-MAY-2011 16:21

Client ID:

Sample Info: PCPE

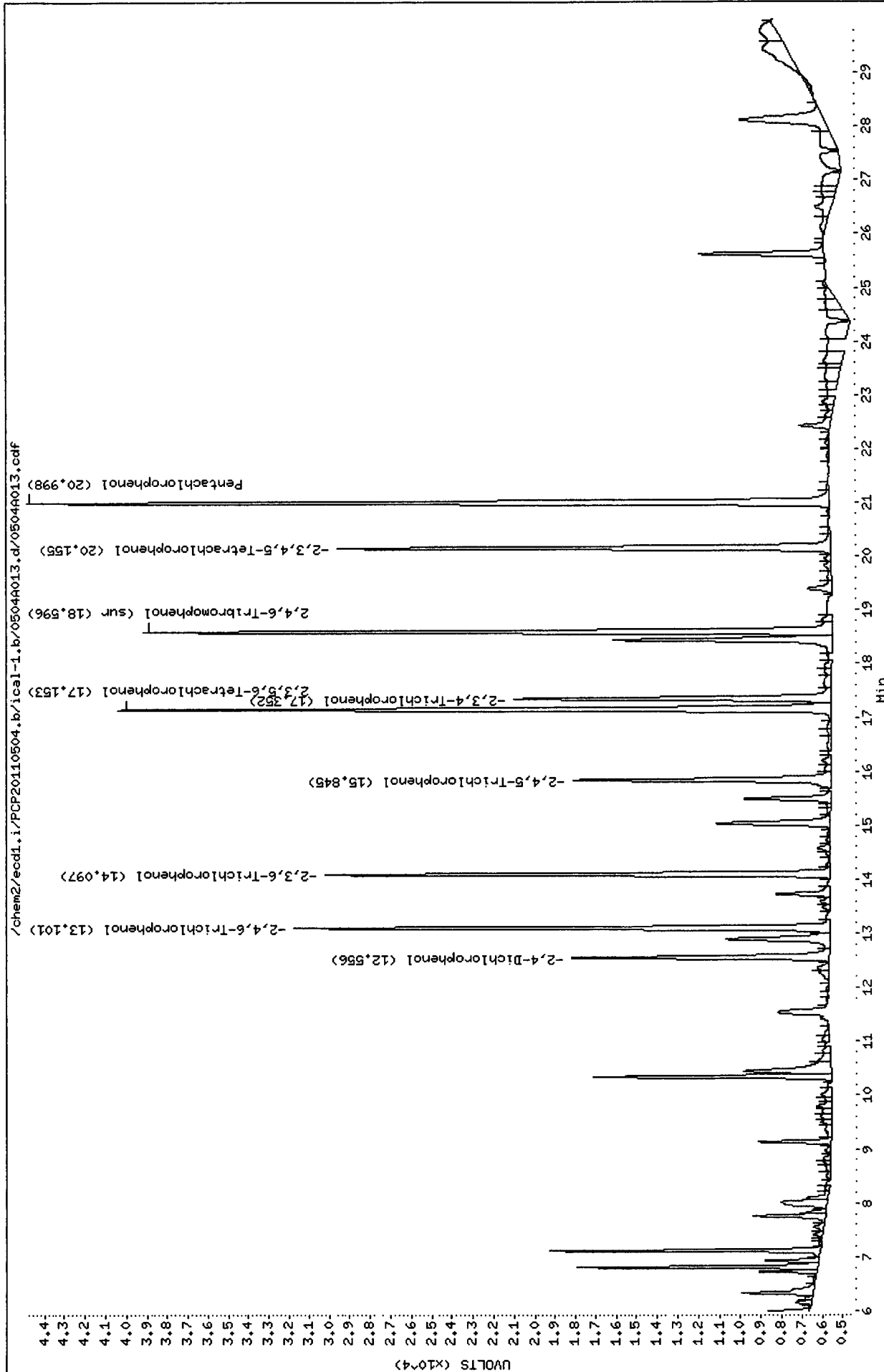
Purge Volume: 500.0

Column phase: STX CLP1

Instrument: ecdl.i

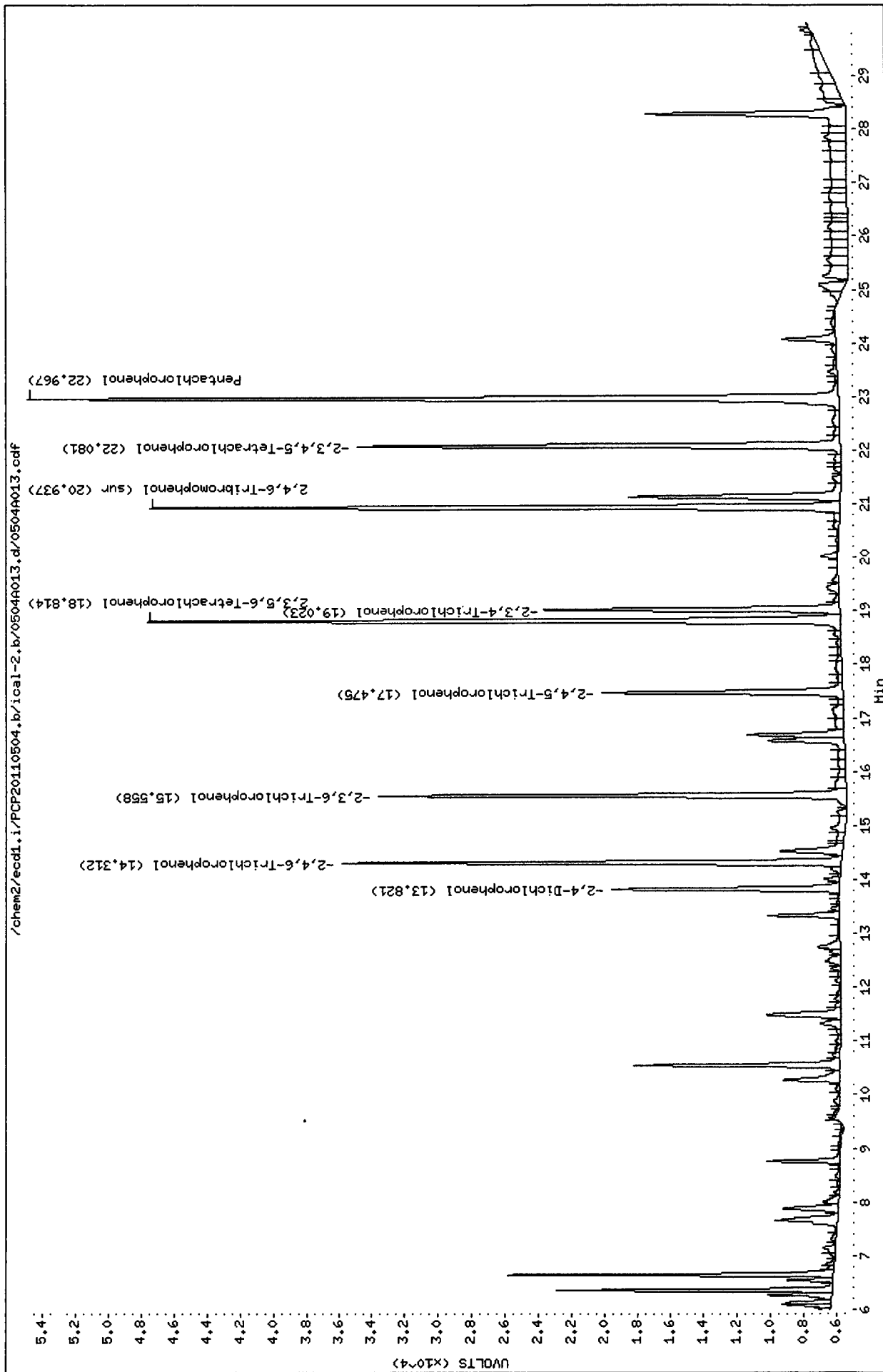
Operator: ar

Column diameter: 0.53



Data File: /chem2/ecdl1.i/PCP20110504.b/ical-2.b/0504A013.d
Date: 04-MAY-2011 16:21
Client ID:
Sample Info: PCPE
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: ecd1.i
Operator: ar
Column diameter: 0.53



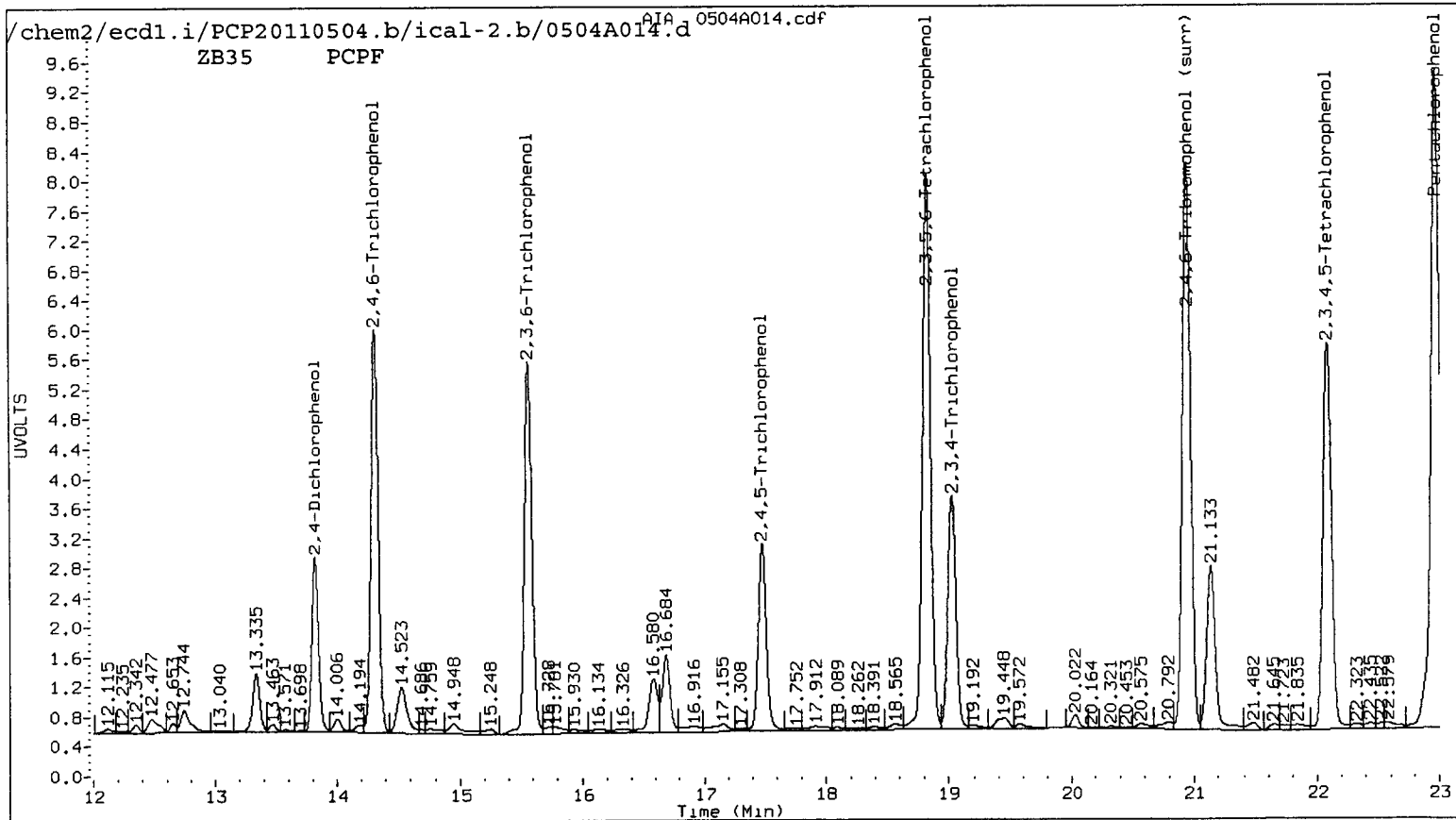
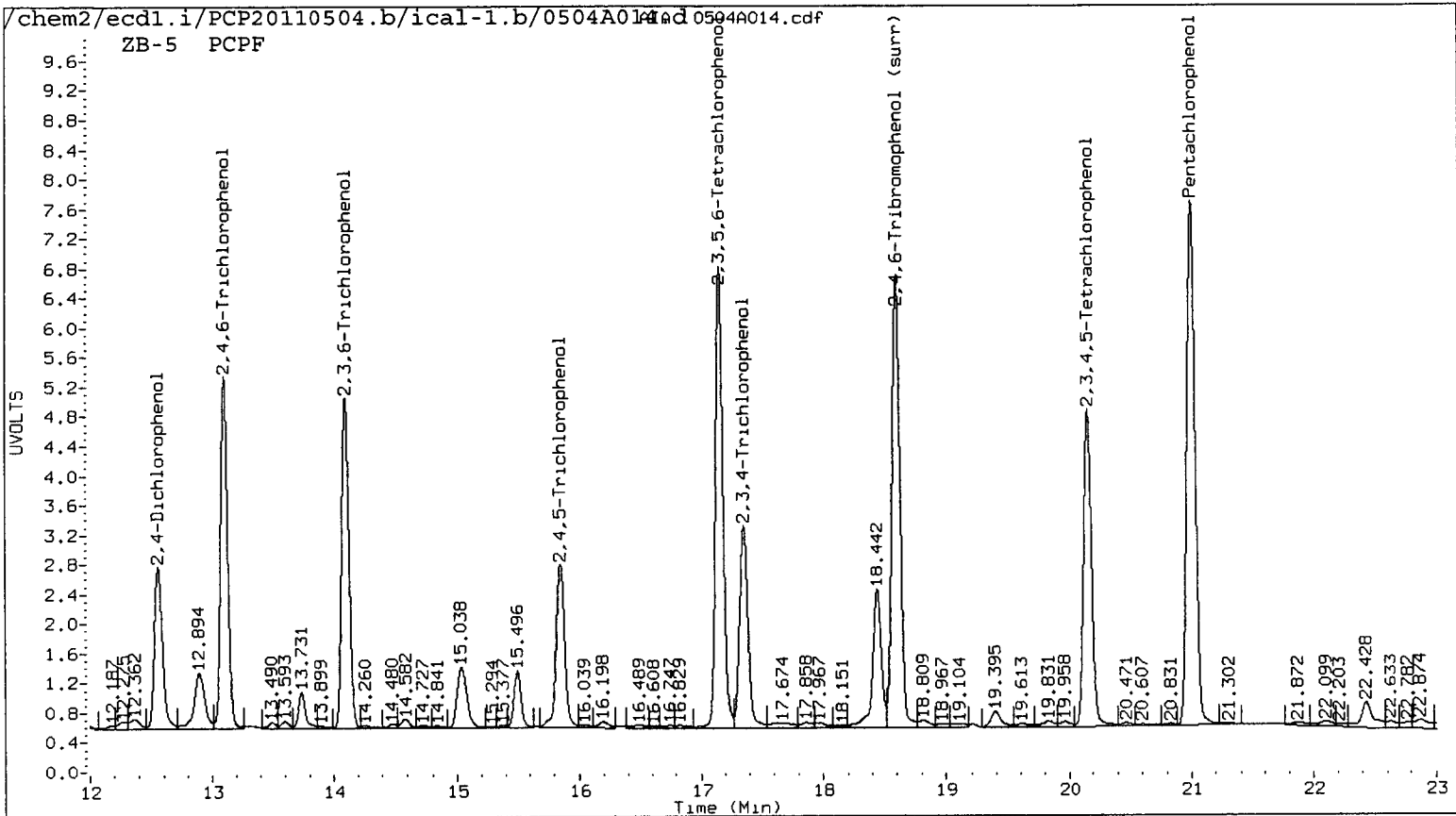
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

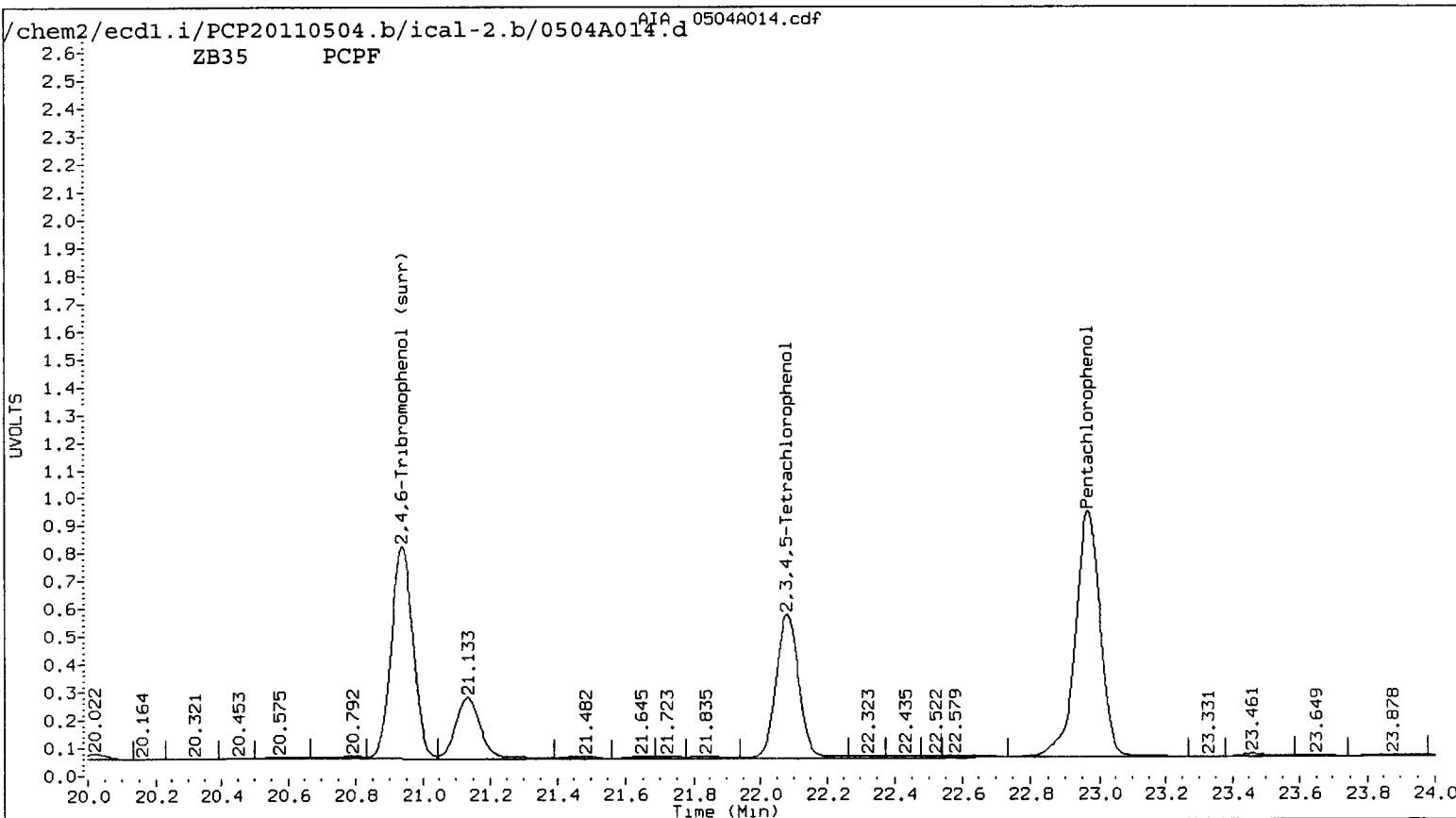
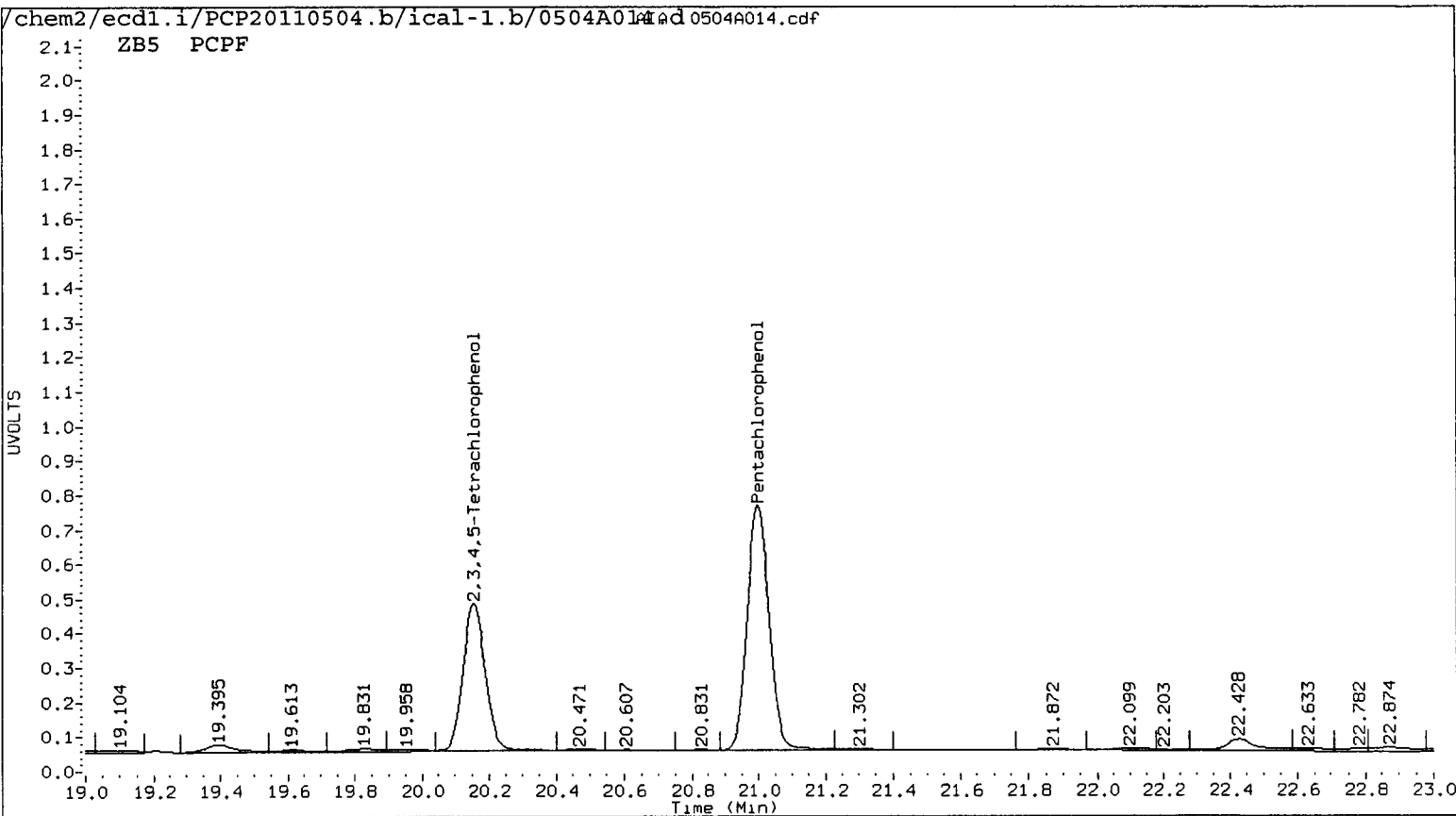
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A014.d Client ID:
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 16:57
 Compound Sublist: all Report Date: 05/06/2011 10:51
 Instrument: ecd1.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col		ZB35 Col		ZB-5	ZB35	RPD	Compound
RT	Shift Response	RT	Shift Response	on col	on col		
20.999	0.002 1629183	22.968	0.001 2229293	80.8562	79.1628	2.1	Pentachlorophenol
13.102	0.001 953234	14.311	0.000 1105237	78.3086	76.2560	2.7	2,4,6-Trichlorophenol
14.097	0.000 908546	15.559	0.002 1094858	79.3307	76.1725	4.1	2,3,6-Trichlorophenol
15.846	0.001 512989	17.475	0.001 590583	100.2030	72.9504	31.5	2,4,5-Trichlorophenol
17.351	0.000 632191	19.023	0.000 719354	75.6631	100.2377	27.9	2,3,4-Trichlorophenol
17.154	0.001 1387633	18.814	0.000 1735216	82.0758	79.0964	3.7	2,3,5,6-Tetrachloropheno
20.155	0.000 990411	22.081	0.001 1234197	76.2925	100.2187	27.1	2,3,4,5-Tetrachloropheno
12.556	0.001 481637	13.820	0.000 504644	1004.8445	1004.2680	0.1	2,4-Dichlorophenol
18.596	0.001 1354876	20.937	0.001 1734112	86.1	82.5	4.2	2,4,6-Tribromophenol (sur

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	344.2	329.9





Data File: /chem2/ecdl.i/PCP20110504.b/ical-1.b/0504R014.d

Date : 04-MAY-2011 16:57

Client ID:

Sample Info: PCPF

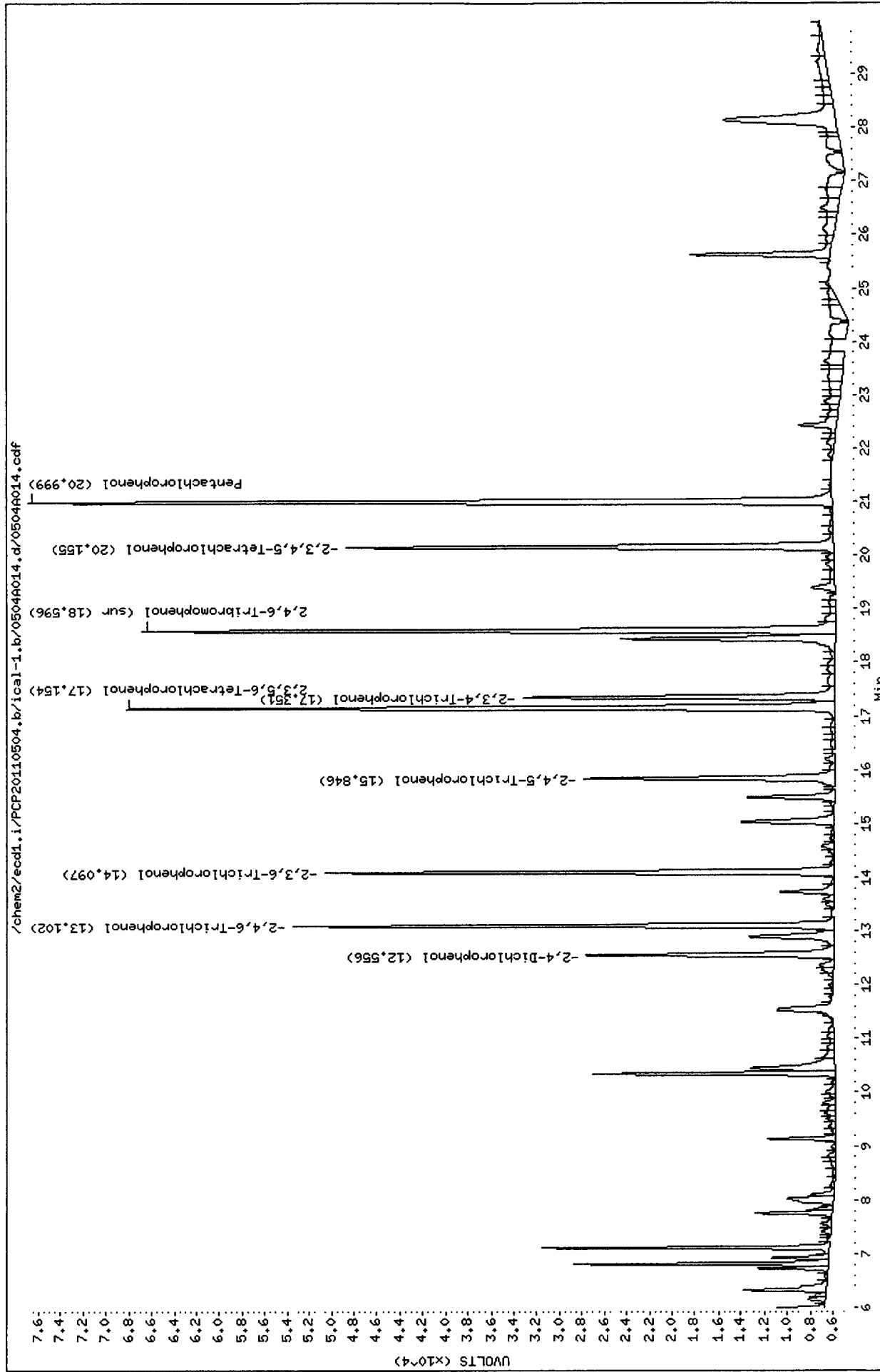
Purge Volume: 500.0

Column phase: STX CLP1

Instrument: ecdl.i

Operator: ar

Column diameter: 0.53



Data File: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A014.d

Date : 04-MAY-2011 16:57

Client ID:

Sample Info: PCPF

Purge Volume: 500.0

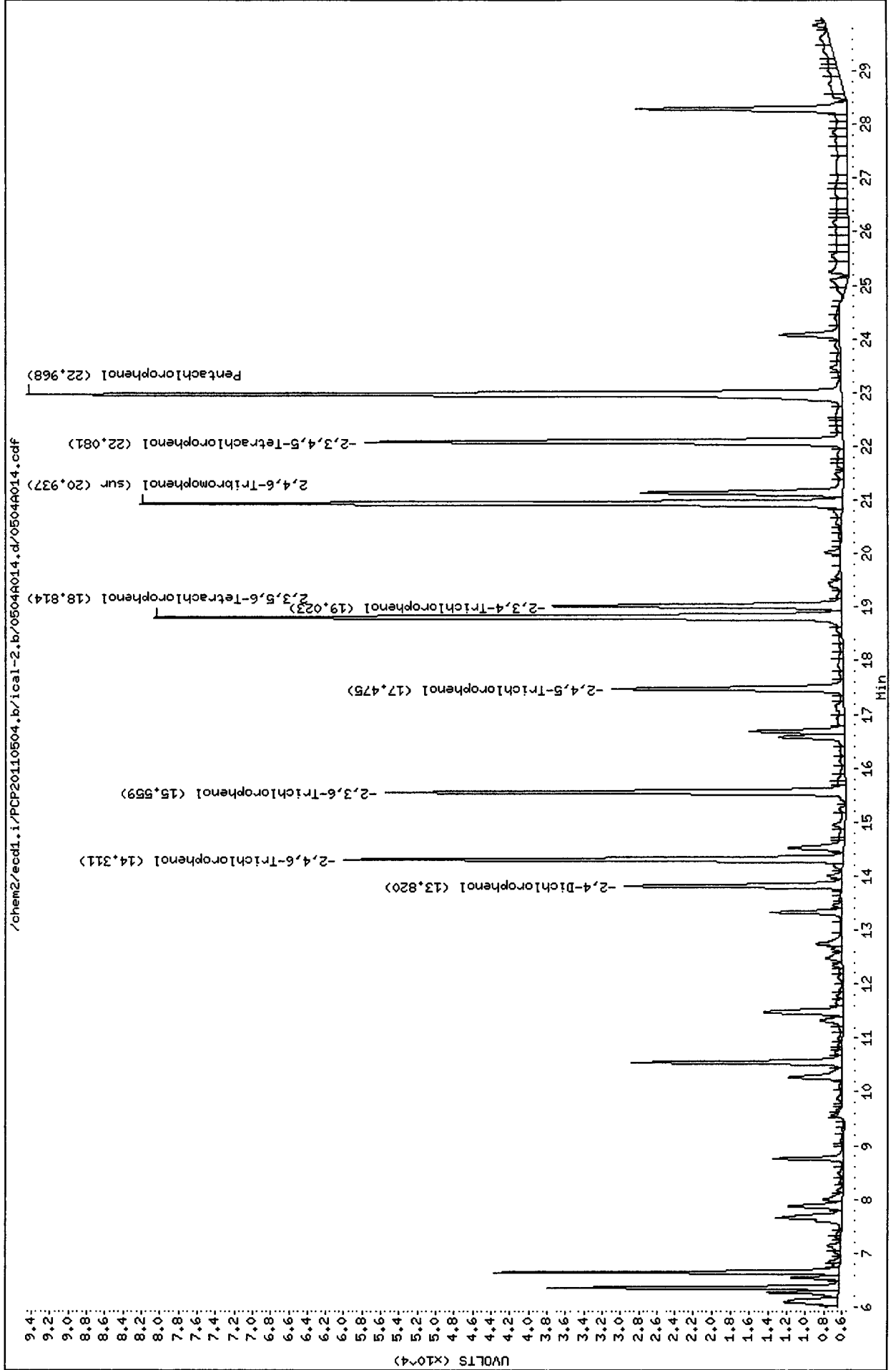
Column phase: STX CLP2

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

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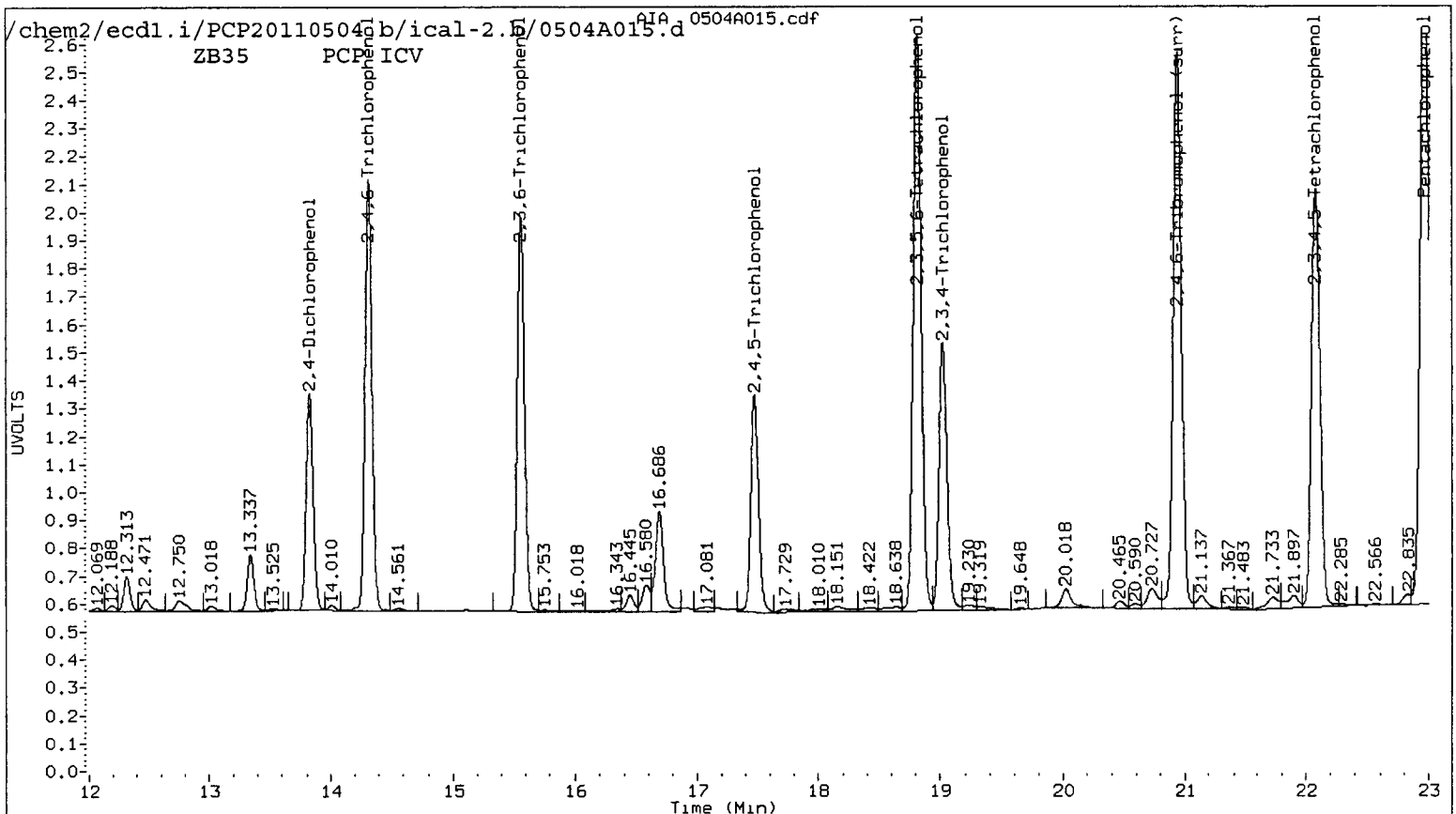
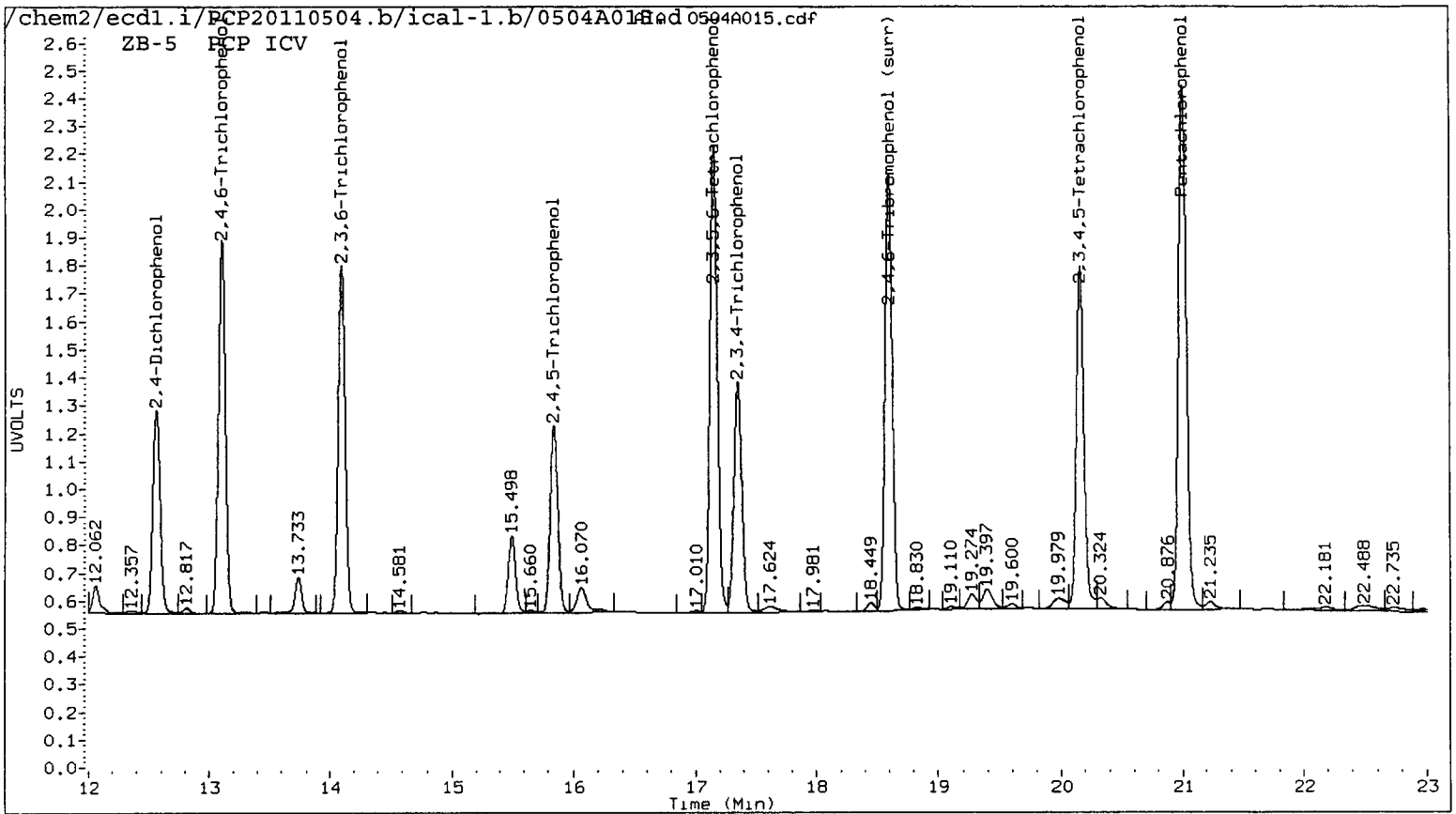
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

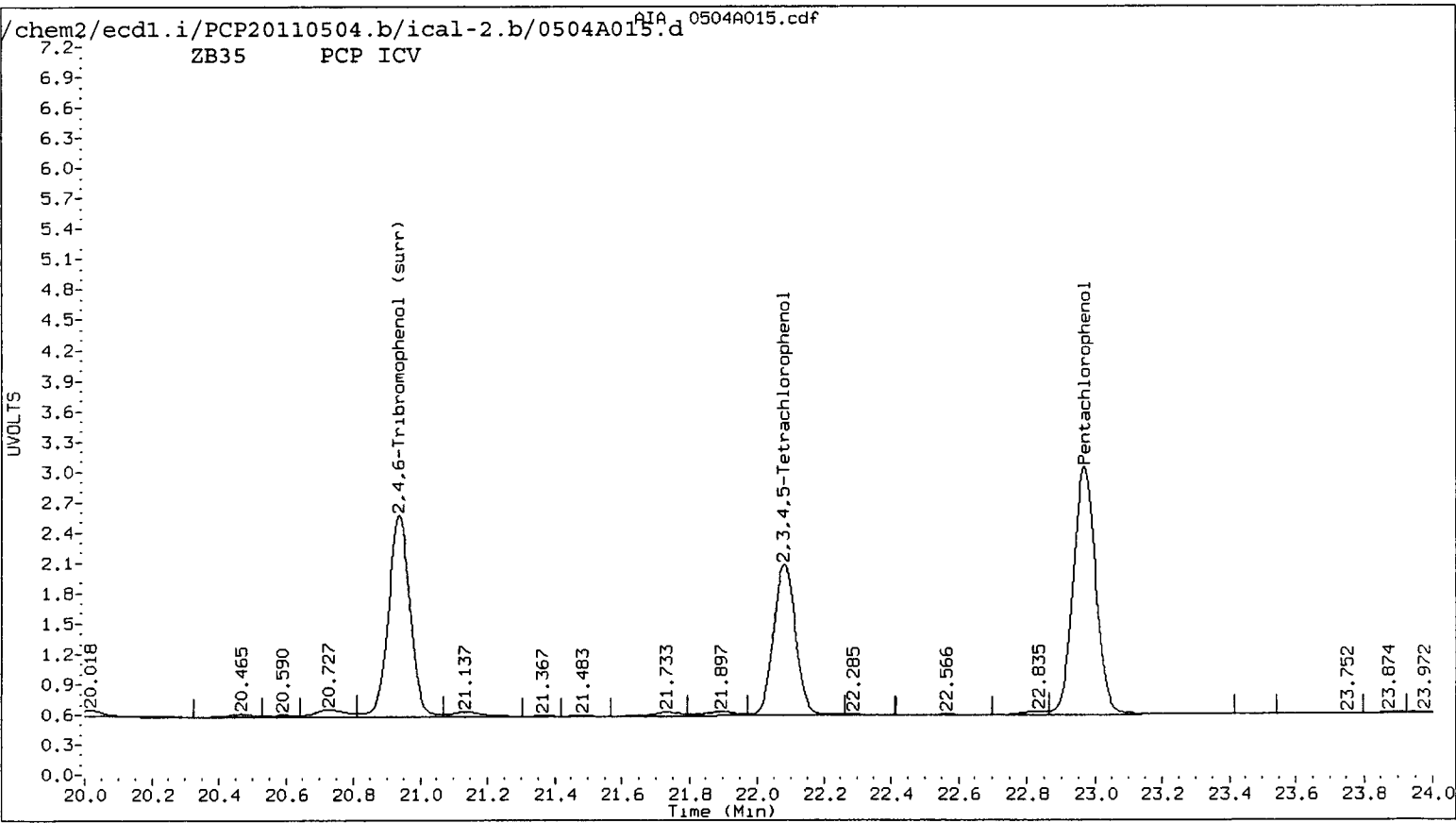
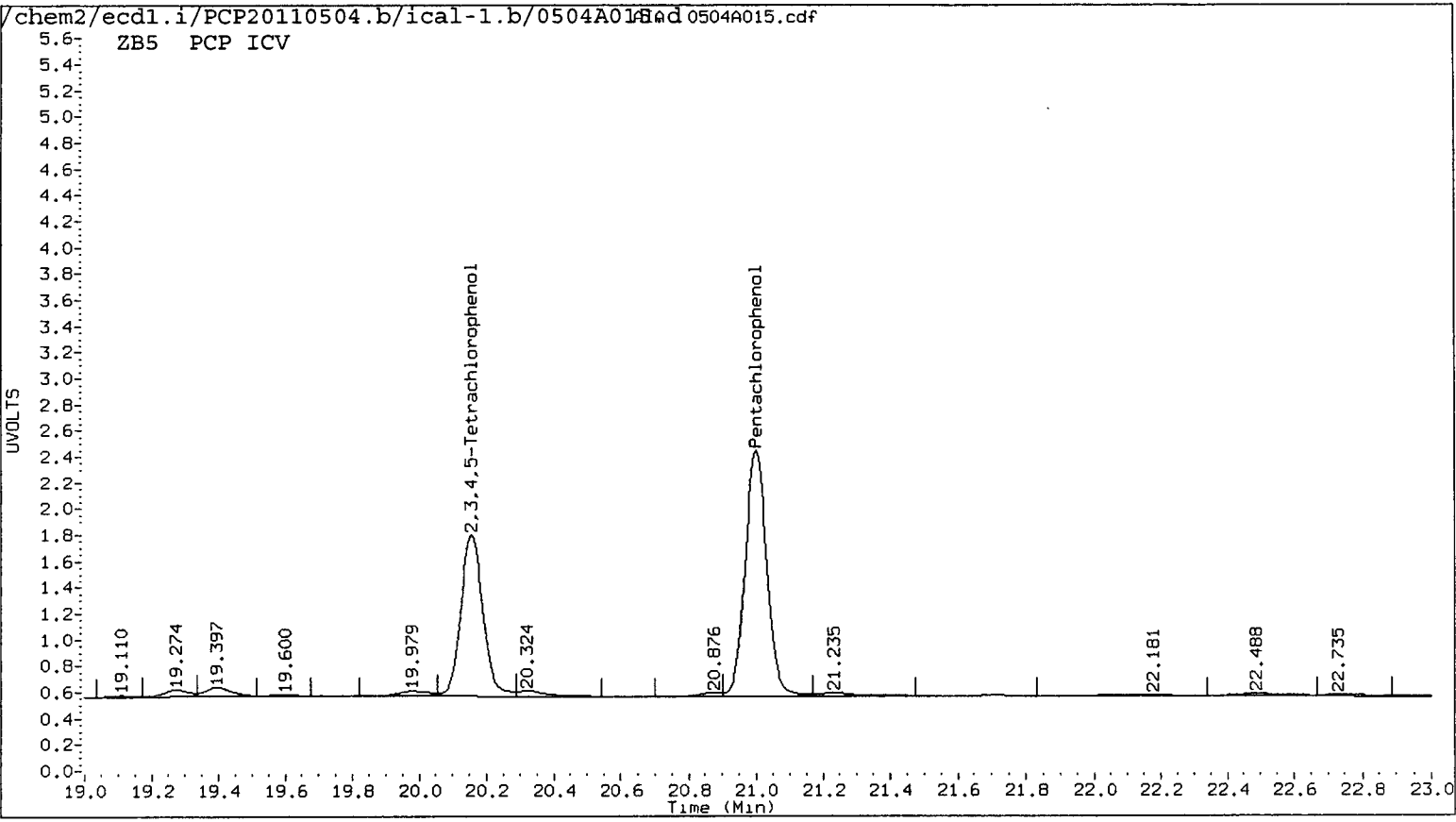
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/ical-2.b/0504A015.d Client ID:
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 17:33
 Compound Sublist: all Report Date: 05/06/2011 10:51
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.999	0.002	419390	22.968	0.001	573013	20.8143	20.3478	2.3	Pentachlorophenol
13.103	0.002	261364	14.313	0.002	313109	21.4712	21.6030	0.6	2,4,6-Trichlorophenol
14.099	0.002	249795	15.560	0.003	297315	21.8111	20.6851	5.3	2,3,6-Trichlorophenol
15.847	0.002	142426	17.476	0.002	175158	21.0491	21.6360	2.7	2,4,5-Trichlorophenol
17.354	0.002	182226	19.024	0.001	220578	21.8095	23.9827	9.5	2,3,4-Trichlorophenol
17.155	0.002	353209	18.816	0.002	460959	20.8916	21.0119	0.6	2,3,5,6-Tetrachlorophenol
20.157	0.002	280017	22.081	0.001	345838	21.5700	22.3963	3.8	2,3,4,5-Tetrachlorophenol
12.557	0.002	154019	13.822	0.002	166897	231.9359	235.4487	1.5	2,4-Dichlorophenol
18.598	0.002	326814	20.938	0.002	449994	20.8	21.4	3.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	83.3	81.4
2,4,6-Trichlorophenol	85.9	86.4
2,3,6-Trichlorophenol	87.2	82.7
2,4,5-Trichlorophenol	84.2	86.5
2,3,4-Trichlorophenol	87.2	95.9
2,3,5,6-Tetrachlorophenol	83.6	84.0
2,3,4,5-Tetrachlorophenol	86.3	89.6
2,4-Dichlorophenol	92.8	94.2
2,4,6-TBP (surr)	41.5	42.8
	83.0	85.6





Data File: /chem2/ecdl1.i/PCP20110504.b/ical-1.b/0504A015.d

Date : 04-MAY-2011 17:33

Client ID:

Sample Info: PCP ICV

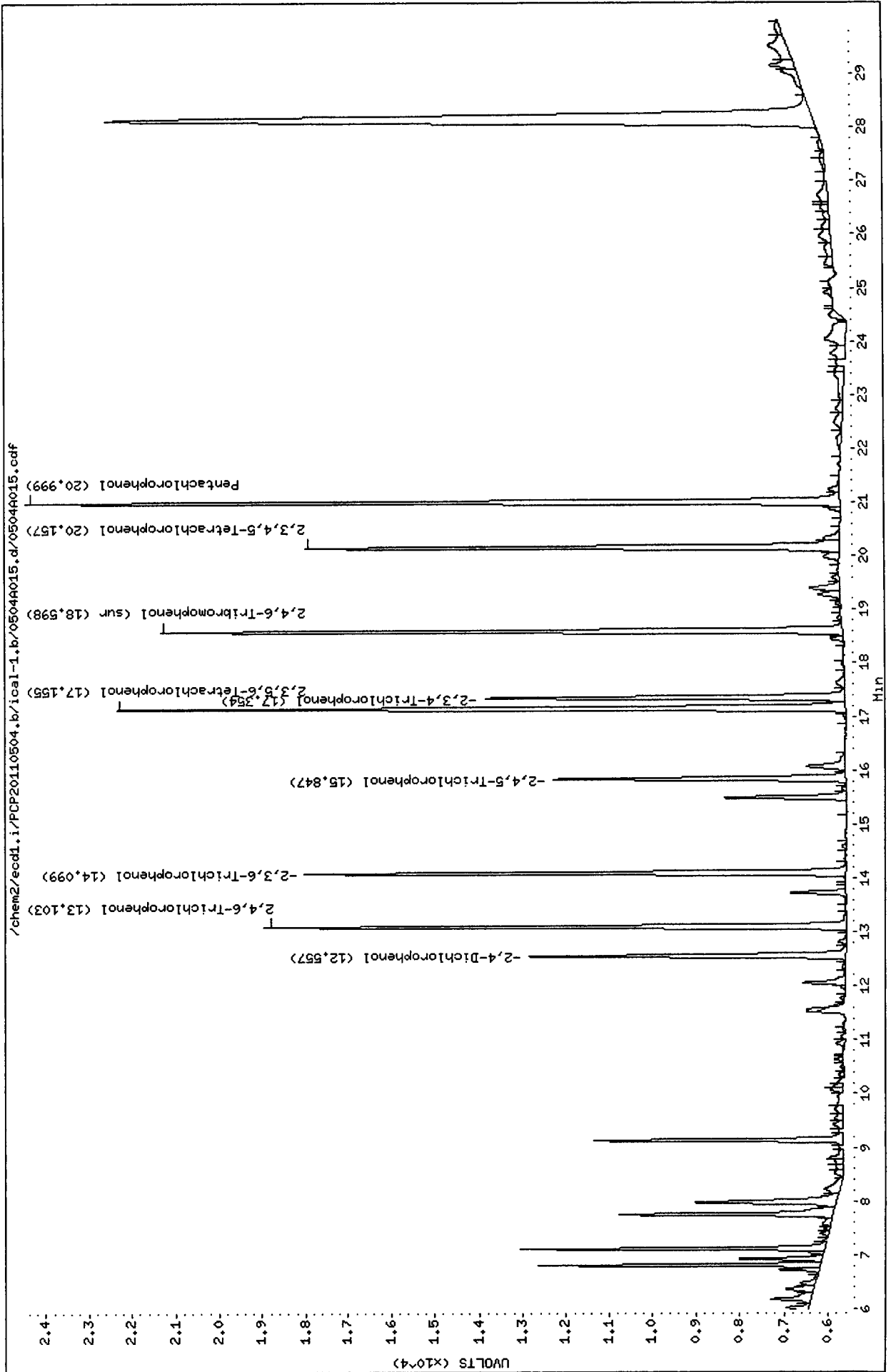
Purge Volume: 500.0

Column phase: STX CLP1

Instrument: eccl1.1

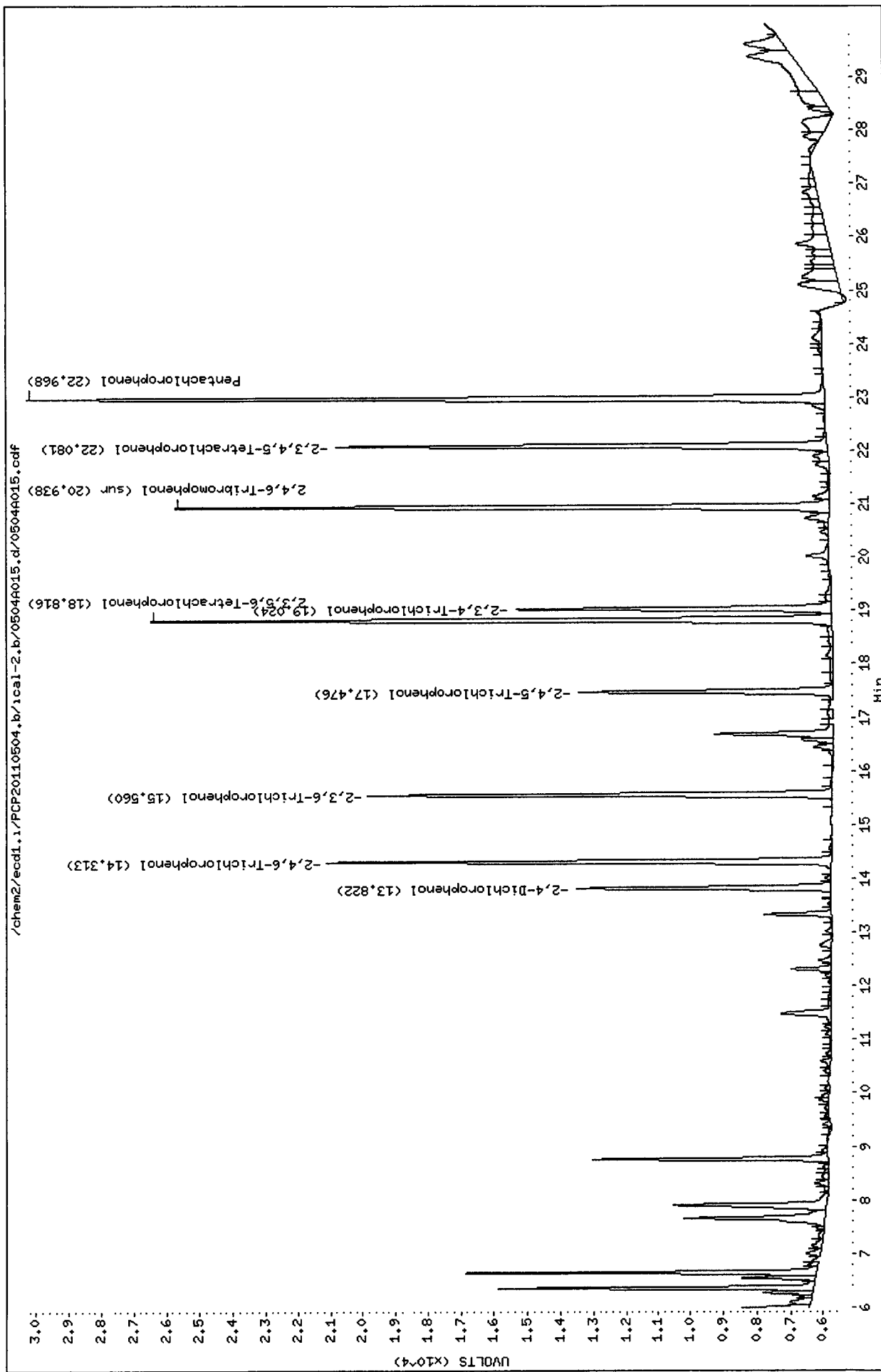
Operator: ar

Column diameter: 0.53



Data File: /chem2/ecdl1.i/PCP20110504.b/1cal-2.b/0504A015.d
Date : 04-MAY-2011 17:33
Client ID:
Sample Info: PCP ICV
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: ecdl1.i
Operator: ar
Column diameter: 0.53



PCP/Chlorophenols Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: SS71



GC Analyst Notes / Corrective Action Log

ARI Project ID: SS71 & SS83 Client ID: Floyd Snider

ARI SOP: 403S(PCB) 405S(Herb) 407S(TPH-D) 409S(HCID) 412S(PCP) 423S(Pest)
427S(Dir Inj) 428S(EPH) 432S(EDB) Other

Parameter(s): N/A

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/4/2011 Analysis Start: 5/4/2011

Endrin/DDT Breakdown <15%?	YES / NO / <u>NA</u>	Method Blank In Control?	<u>YES</u> / NO
ICal Meets RF & %RSD Criteria?	<u>YES</u> / NO	LCS/LCSD Recovery In Control?	<u>YES</u> / NO
CCal Meets RF & %RSD Criteria?	<u>YES</u> / NO	Surrogate Recovery In Control?	<u>YES</u> / NO
Manual Integrations for ICal?	<u>YES</u> / NO	Manual Integrations for Samples?	YES / <u>NO</u>
Internal Standard Meets Criteria?	YES / NO / <u>NA</u>	Special Analysis Criteria Met?	<u>YES</u> / NO / NA

VDP Requested

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

- Dilution & 2^o run
- Ccals meet for req'd analytes

Additional Details on Reverse: Yes / No

Analyst: [Signature] Date: 5/6/2011

Reviewer: [Signature] Date: 5/6/11

Analytical Resources Inc.: Organics Instrument Log

ECD1 Serial No.: 3410A39690

Date: 5/4/2011 Analysis: PCP Analyst: AR

GC Program: HERB.M Column No: 922995/801692 Column Type: STXCLP1/2

Calibration File: PCP20110504.b Curve Date: 5/4/2011 Injection Vol.: 2µL

IS/SS	Ical/Ccal	LCS/ICV
	1791 -4	1820 -4

Document All Maintenance Tasks In StarLIMS

GC LOG SUMMARY FOR DATABATCH - /chem2/ecdl.i/PCP20110504.b/0504-2.b					
	Inject Date/Time	Filename	DF	LabID	ClientID
1	04-MAY-2011 18:10	0504A016.d	1	PCP CCAL - Passes	
2	04-MAY-2011 18:46	0504A017.d	1	SS71MBW1	SS71MBW1
3	04-MAY-2011 19:22	0504A018.d	1	SS71LCSW1	SS71LCSW1
4	04-MAY-2011 19:59	0504A019.d	1	SS71LCSW1	SS71LCSW1
5	04-MAY-2011 20:35	0504A020.d	1	SS71QLS	
6	04-MAY-2011 21:11	0504A021.d	1	SS71T	LL-ER-041911
7	04-MAY-2011 21:48	0504A022.d	1	SS83P	DMA-RB-042011
8	04-MAY-2011 22:24	0504A023.d	10	SS52A	27-D
9	04-MAY-2011 23:00	0504A024.d	1	SS52B	11-A
10	04-MAY-2011 23:37	0504A025.d	10	SS52C	GM-5
11	05-MAY-2011 00:13	0504A026.d	1	SS52D	GM-6
12	05-MAY-2011 00:49	0504A027.d	1	PCP	
13	05-MAY-2011 01:25	0504A028.d	1	PCP CCAL - Passes	
14	05-MAY-2011 02:02	0504A029.d	5	SS52G	24-B
15	05-MAY-2011 02:38	0504A030.d	100	SS51D	5-A
16	05-MAY-2011 03:14	0504A031.d	1	PCP	
17	05-MAY-2011 03:50	0504A032.d	52	SS51E	22 AR 5/6/2011
18	05-MAY-2011 04:26	0504A033.d	10	SS51F	16-A
19	05-MAY-2011 05:03	0504A034.d	10	SS51G	16-D
20	05-MAY-2011 05:39	0504A035.d	10	SS51H	25-B
21	05-MAY-2011 06:15	0504A036.d	1	SS51I	25-A
22	05-MAY-2011 06:51	0504A037.d	10	SS51T	27-B
23	05-MAY-2011 07:27	0504A038.d	1	PCP	
24	05-MAY-2011 08:04	0504A039.d	1	PCP CCAL - Passes	
25	05-MAY-2011 08:40	0504A040.d	1	SS71MBS1	SS71MBS1
26	05-MAY-2011 09:16	0504A041.d	1	SS71LCS1	SS71LCS1
27	05-MAY-2011 09:52	0504A042.d	1	SS71LCS1	SS71LCS1
28	05-MAY-2011 10:29	0504A043.d	1	SS71QLS	
29	05-MAY-2011 11:05	0504A044.d	1	SS71A	LL-SB6-0-0.5-041811
30	05-MAY-2011 11:41	0504A045.d	1	SS71B	LL-SB6-1.5-2-041811
31	05-MAY-2011 12:18	0504A046.d	1	SS71C	LL-SB6-2-4-041811
32	05-MAY-2011 12:54	0504A047.d	1	SS71D	LL-SB5-0-0.5-041811
33	05-MAY-2011 13:30	0504A048.d	1	SS71E	LL-SB5-1.5-2-041811
34	05-MAY-2011 14:07	0504A049.d	1	SS71F	LL-SB5-2-4-041811
35	05-MAY-2011 14:43	0504A050.d	1	PCP	
36	05-MAY-2011 15:19	0504A051.d	1	PCP CCAL - Passes	
37	05-MAY-2011 15:56	0504A052.d	1	SS71G	LL-SB4-0-0.5-041911
38	05-MAY-2011 16:32	0504A053.d	1	SS71H	LL-SB4-1.5-2-041911
39	05-MAY-2011 17:08	0504A054.d	1	SS71I	LL-SB4-2-4-041911
40	05-MAY-2011 17:45	0504A055.d	1	SS71IMS	LL-SB4-2-4-0419 MS
41	05-MAY-2011 18:21	0504A056.d	1	SS71IMSD	LL-SB4-2-4-0419 MSD
42	05-MAY-2011 18:57	0504A057.d	1	SS71J	LL-SB3-0-0.5-041911
43	05-MAY-2011 19:34	0504A058.d	1	SS71K	LL-SB3-1.5-2-041911
44	05-MAY-2011 20:10	0504A059.d	1	SS71L	LL-SB3-2-4-041911
45	05-MAY-2011 20:46	0504A060.d	1	SS71M	LL-SB2-0-0.5-041911
46	05-MAY-2011 21:23	0504A061.d	1	SS71N	LL-SB2-1.5-2-041911
47	05-MAY-2011 21:59	0504A062.d	1	PCP	
48	05-MAY-2011 22:35	0504A063.d	1	PCP CCAL - Passes	
49	05-MAY-2011 23:12	0504A064.d	1	SS71O	LL-SB2-2-3.5-041911
50	05-MAY-2011 23:48	0504A065.d	1	SS71P	LL-SB1-0-0.5-041911
51	06-MAY-2011 00:24	0504A066.d	1	SS71Q	LL-SB1-0-0.5-041911
52	06-MAY-2011 01:00	0504A067.d	1	SS71R	LL-SB1-1.5-2-041911
53	06-MAY-2011 01:37	0504A068.d	1	SS71S	LL-SB1-2-4-041911
54	06-MAY-2011 02:13	0504A069.d	1	PCP	
55	06-MAY-2011 02:49	0504A070.d	1	PCP CCAL - Passes	

Every line must contain information or be lined out. Make all entries legible.
 Start a new page for each QC period. Document All Maintenance Tasks In StarLIMS

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

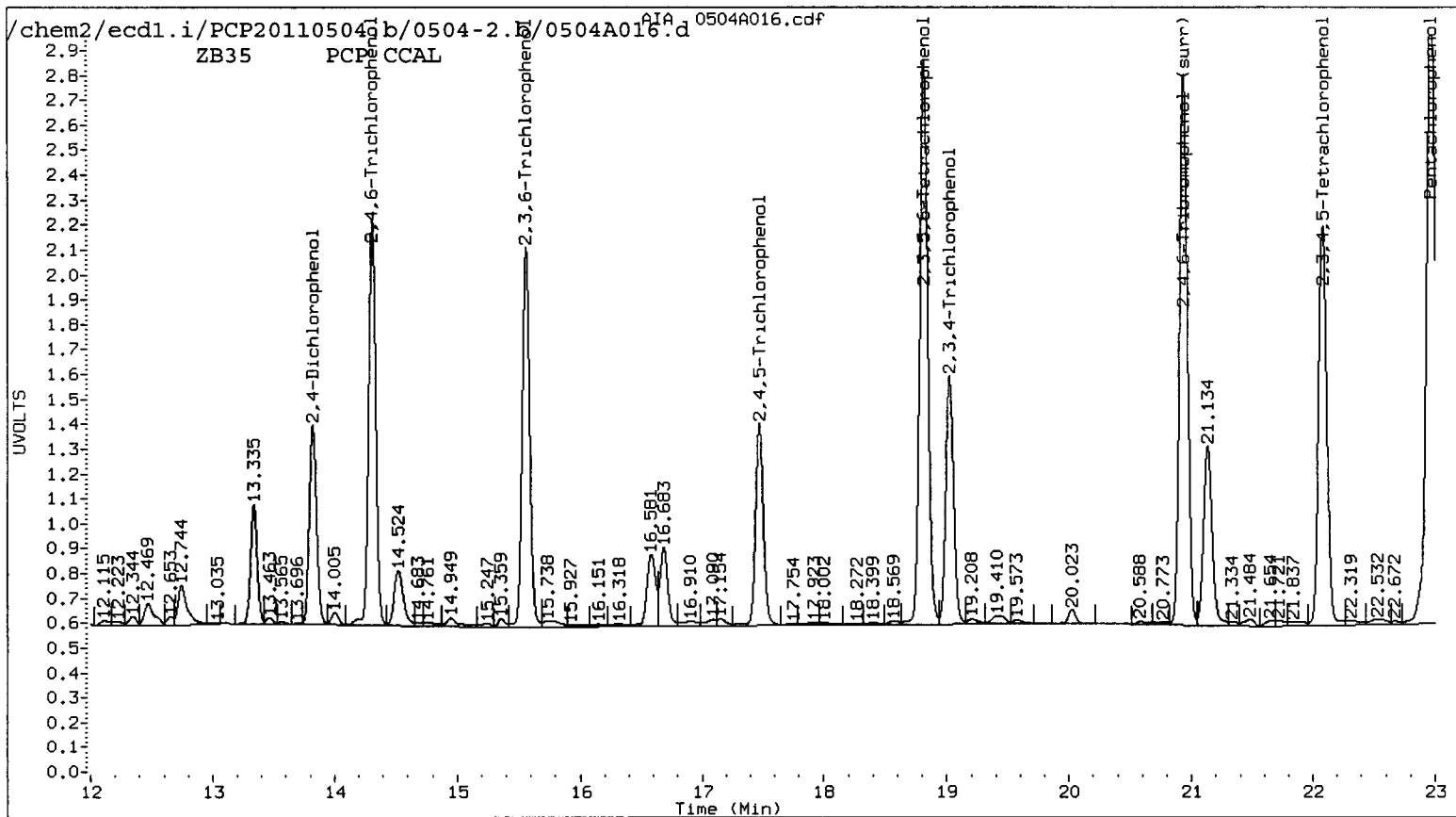
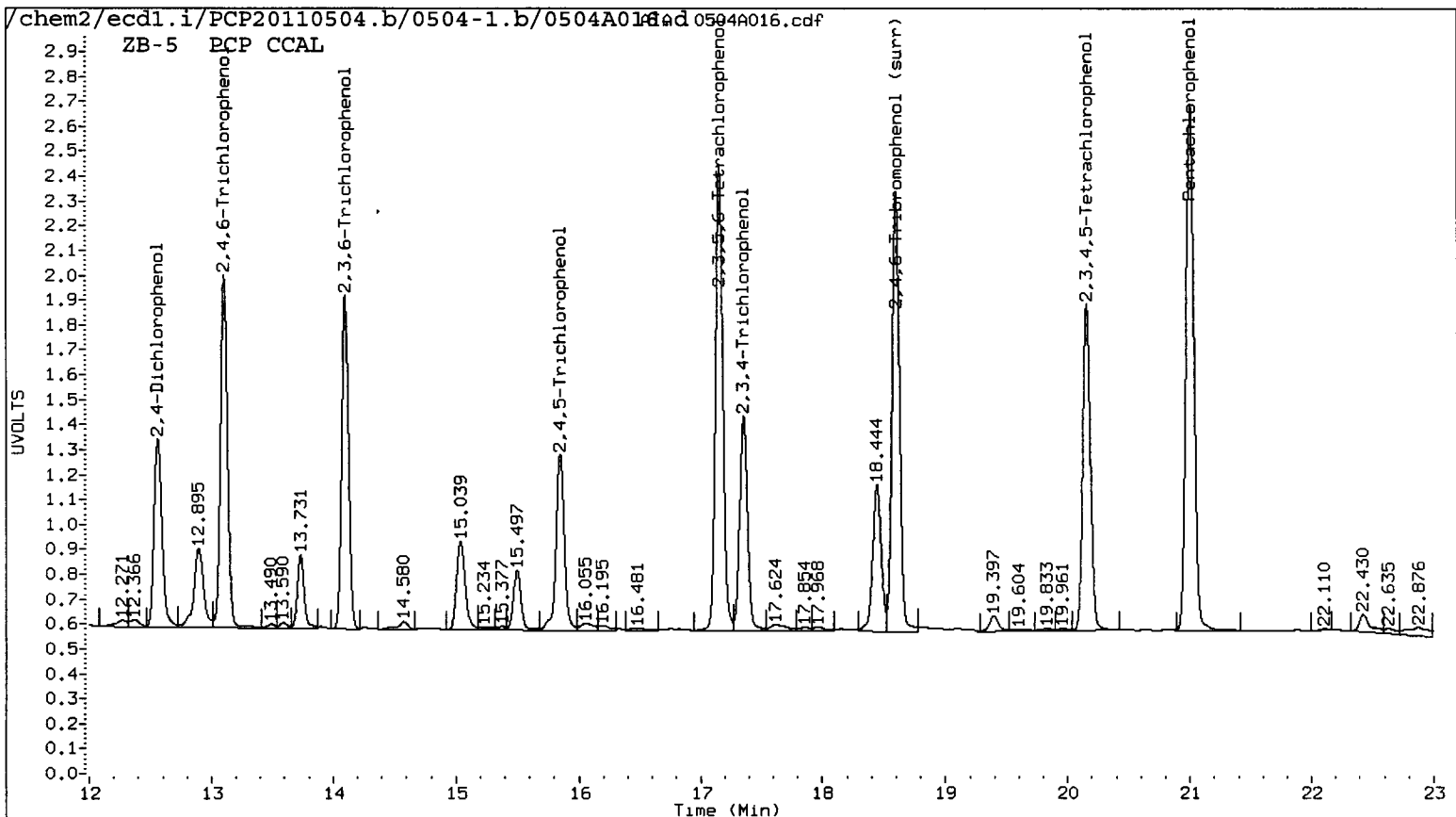
AR 5/6/2011

Data file 1: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A016.d ARI ID: PCP CCAL
 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A016.d Client ID:
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 18:10
 Compound Sublist: all Report Date: 05/06/2011 11:11
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

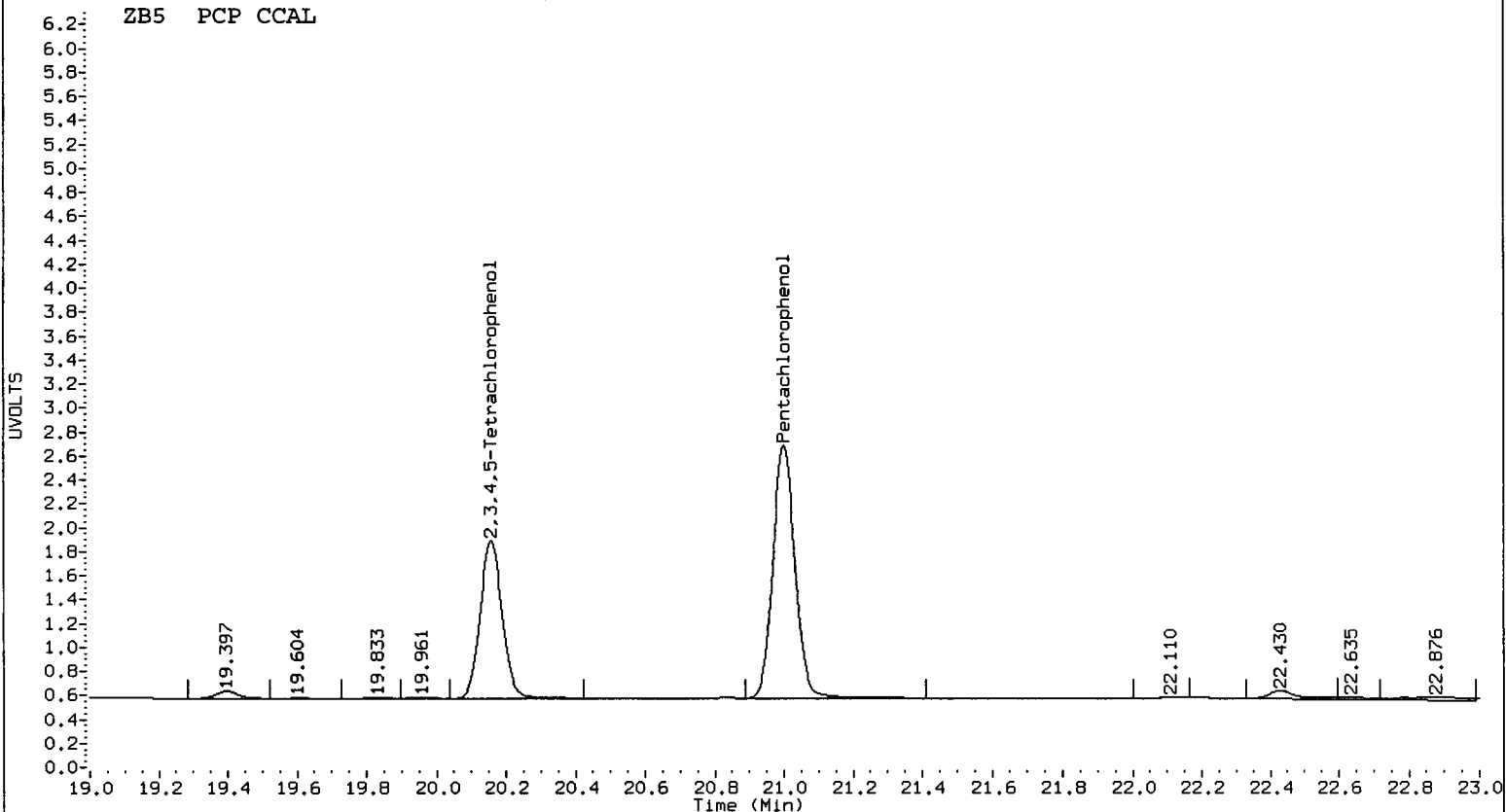
ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.000	0.002	473322	22.969	0.002	661001	23.4909	23.4723	0.1	Pentachlorophenol
13.101	0.000	283966	14.312	0.001	335921	23.3279	23.1770	0.6	2,4,6-Trichlorophenol
14.097	0.000	266073	15.558	0.001	327947	23.2325	22.8163	1.8	2,3,6-Trichlorophenol
15.846	0.001	163952	17.475	0.001	186383	24.6834	23.0226	7.0	2,4,5-Trichlorophenol
17.353	0.001	194175	19.024	0.001	225239	23.2397	24.5540	5.5	2,3,4-Trichlorophenol
17.154	0.001	401424	18.815	0.001	509727	23.7435	23.2349	2.2	2,3,5,6-Tetrachlorophenol
20.156	0.002	291334	22.082	0.002	375332	22.4418	24.5112	8.8	2,3,4,5-Tetrachlorophenol
12.557	0.002	169736	13.821	0.001	170839	260.3304	242.1664	7.2	2,4-Dichlorophenol
18.597	0.001	376880	20.938	0.002	491589	23.9	23.4	2.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

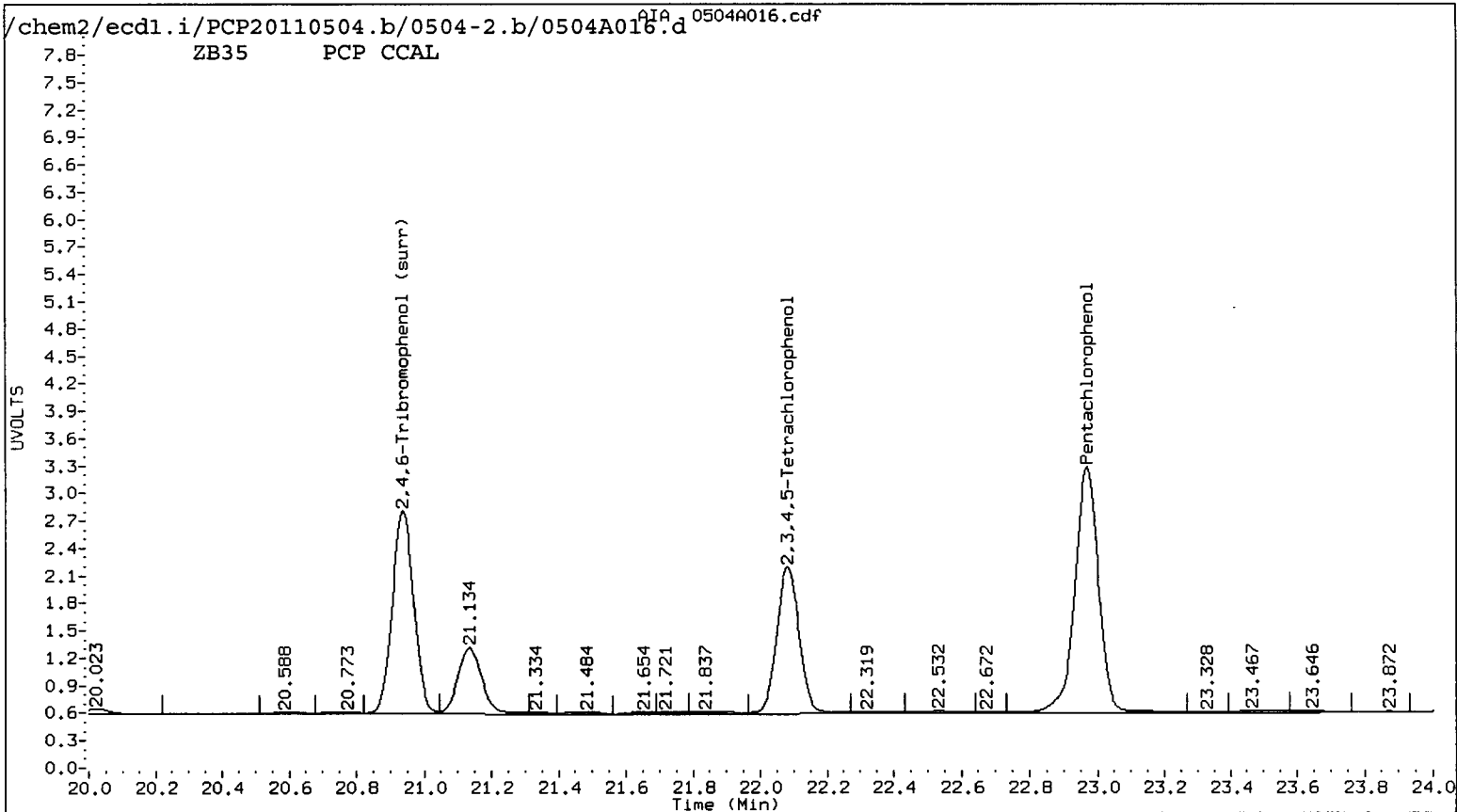
COMPOUND	Col1	Col2
Pentachlorophenol	94.0	93.9
2,4,6-Trichlorophenol	93.3	92.7
2,3,6-Trichlorophenol	92.9	91.3
2,4,5-Trichlorophenol	98.7	92.1
2,3,4-Trichlorophenol	93.0	98.2
2,3,5,6-Tetrachlorophenol	95.0	92.9
2,3,4,5-Tetrachlorophenol	89.8	98.0
2,4-Dichlorophenol	104.1	96.9
2,4,6-TBP (surr)	95.8	93.5



ZB5 PCP CCAL



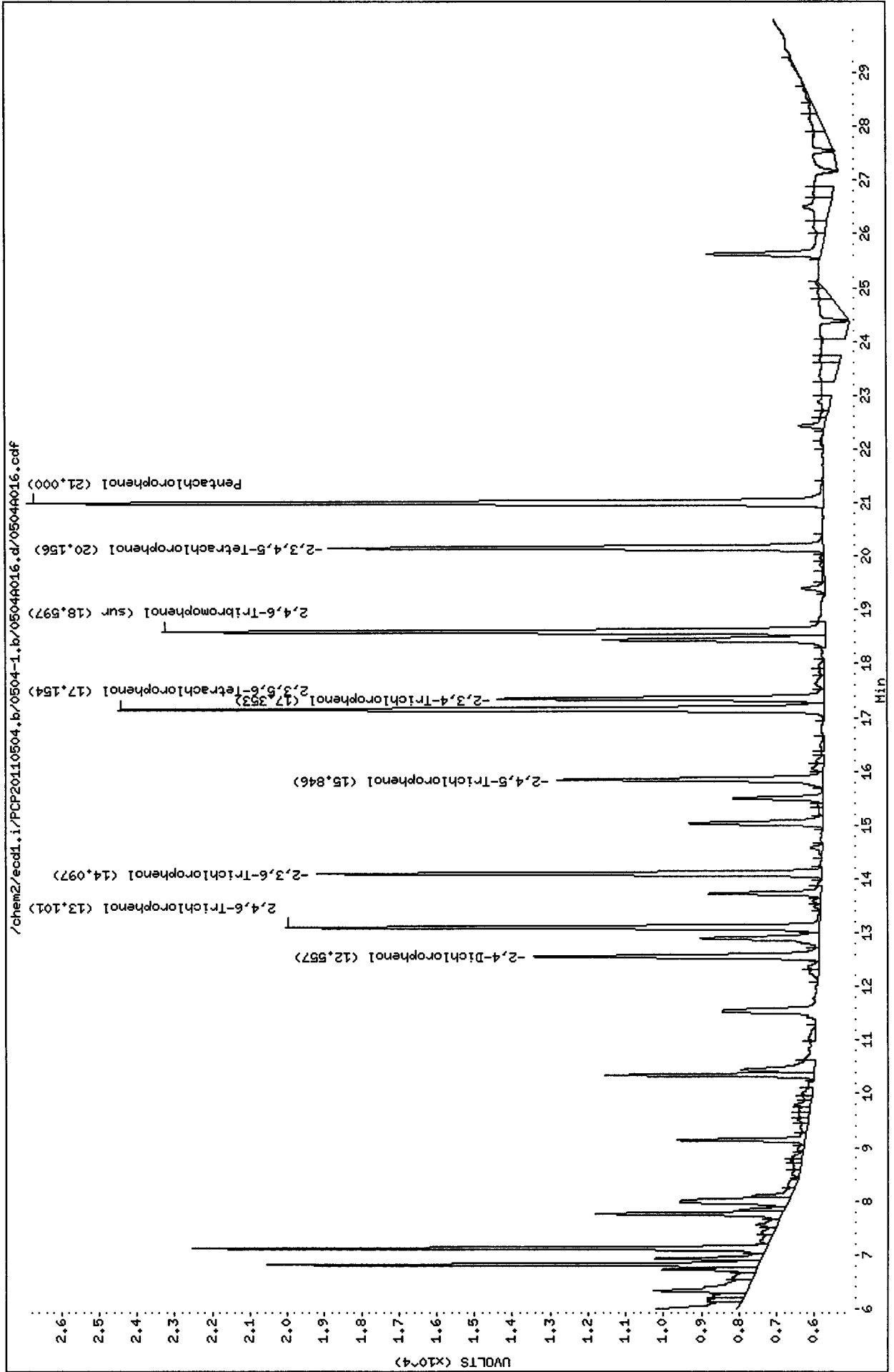
ZB35 PCP CCAL



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Date: 04-MAY-2011 18:10
Client ID:
Sample Info: PCP CCAL
Purge Volume: 500.0
Column phase: STX CLP1

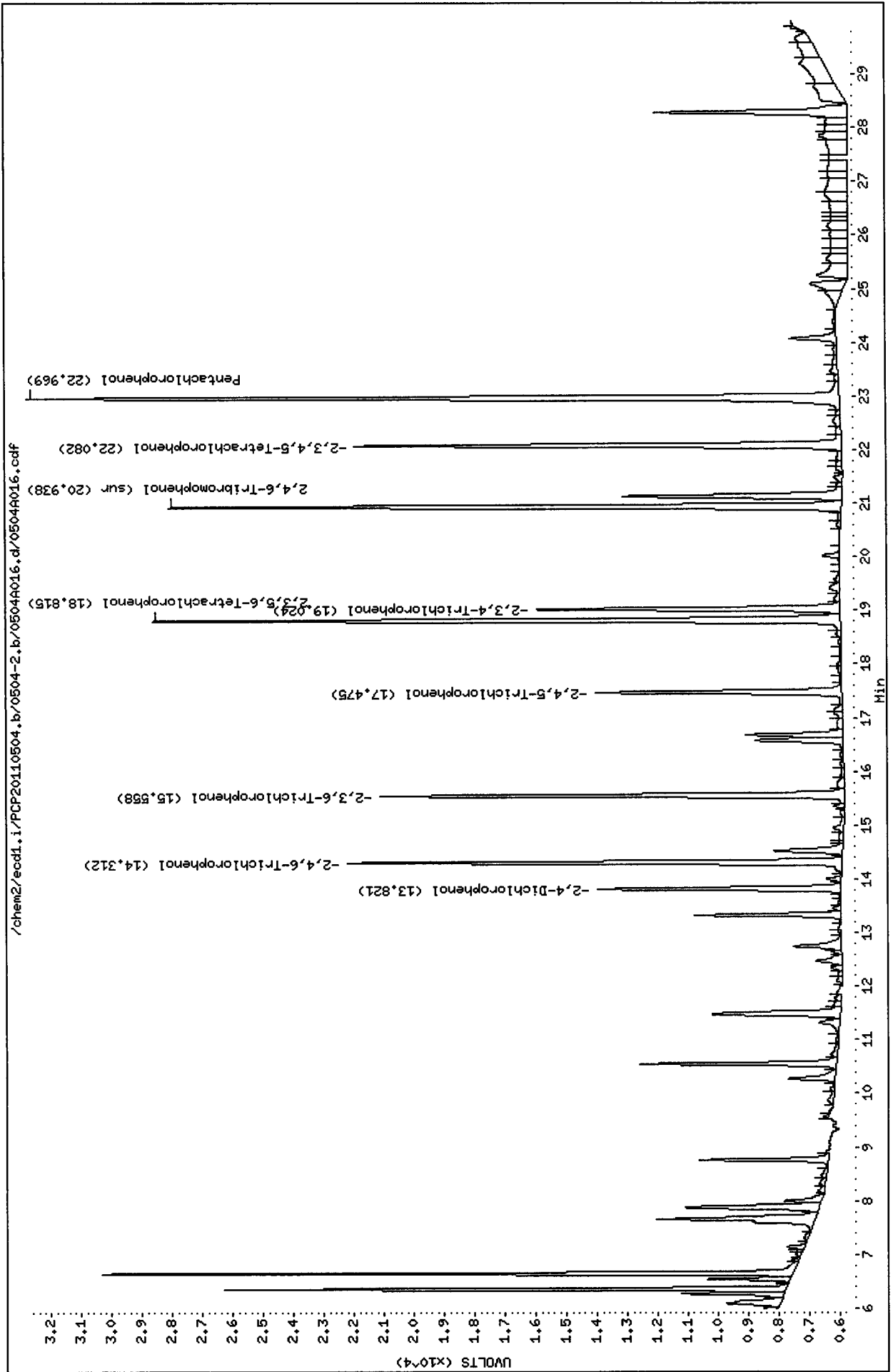
Instrument: ecdl.i

Operator: ar
Column diameter: 0.53



Data File: /chem2/ecd1.i/PCP20110504.b/0504-2.b/0504A016.d
Date : 04-MAY-2011 18:10
Client ID:
Sample Info: PCP CCAL
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: ecd1.i
Operator: ar
Column diameter: 0.53



Analytical Resources Inc.
 Dual Column 8041 Chlorinated Phenols Quantitation Report

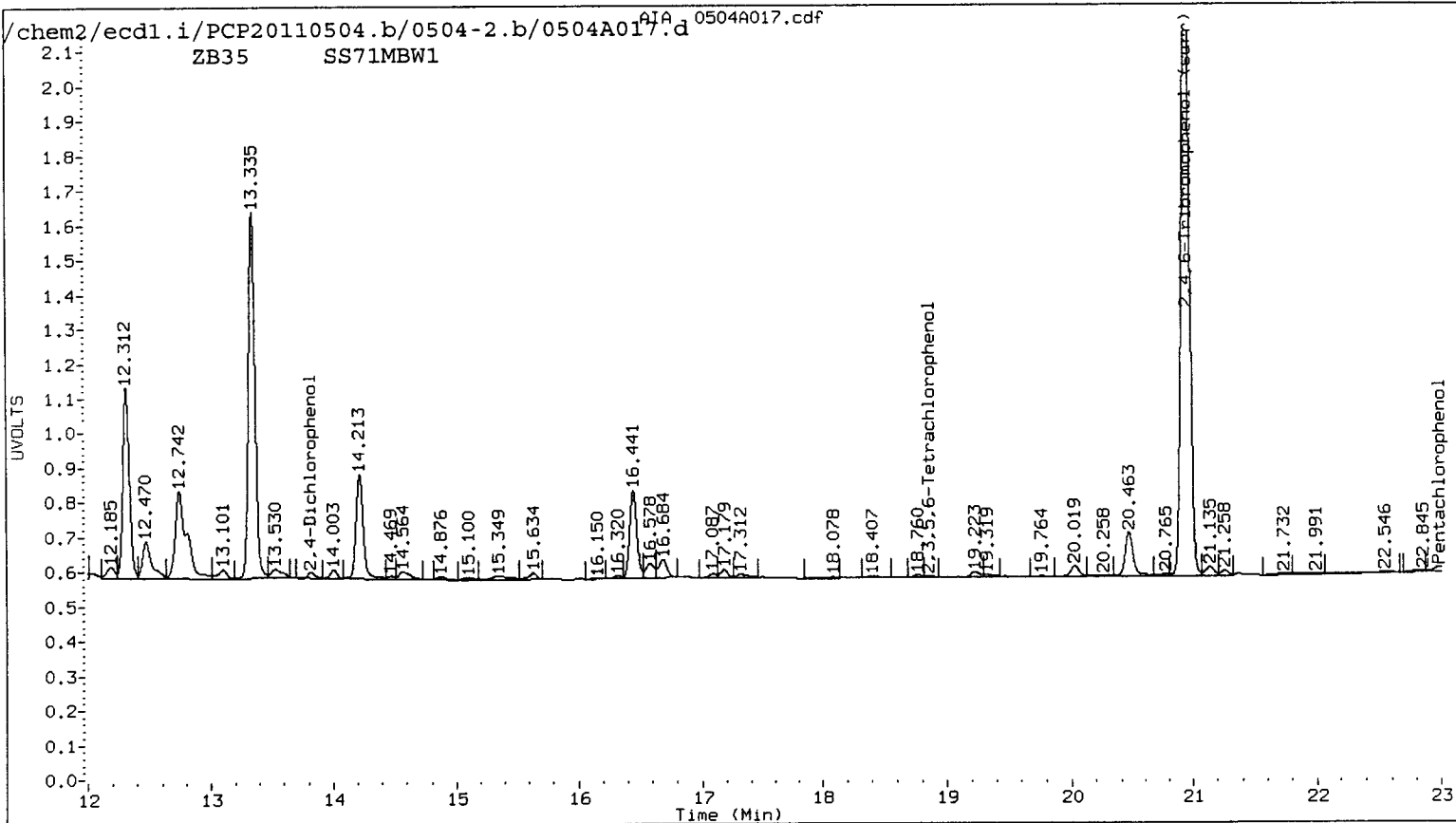
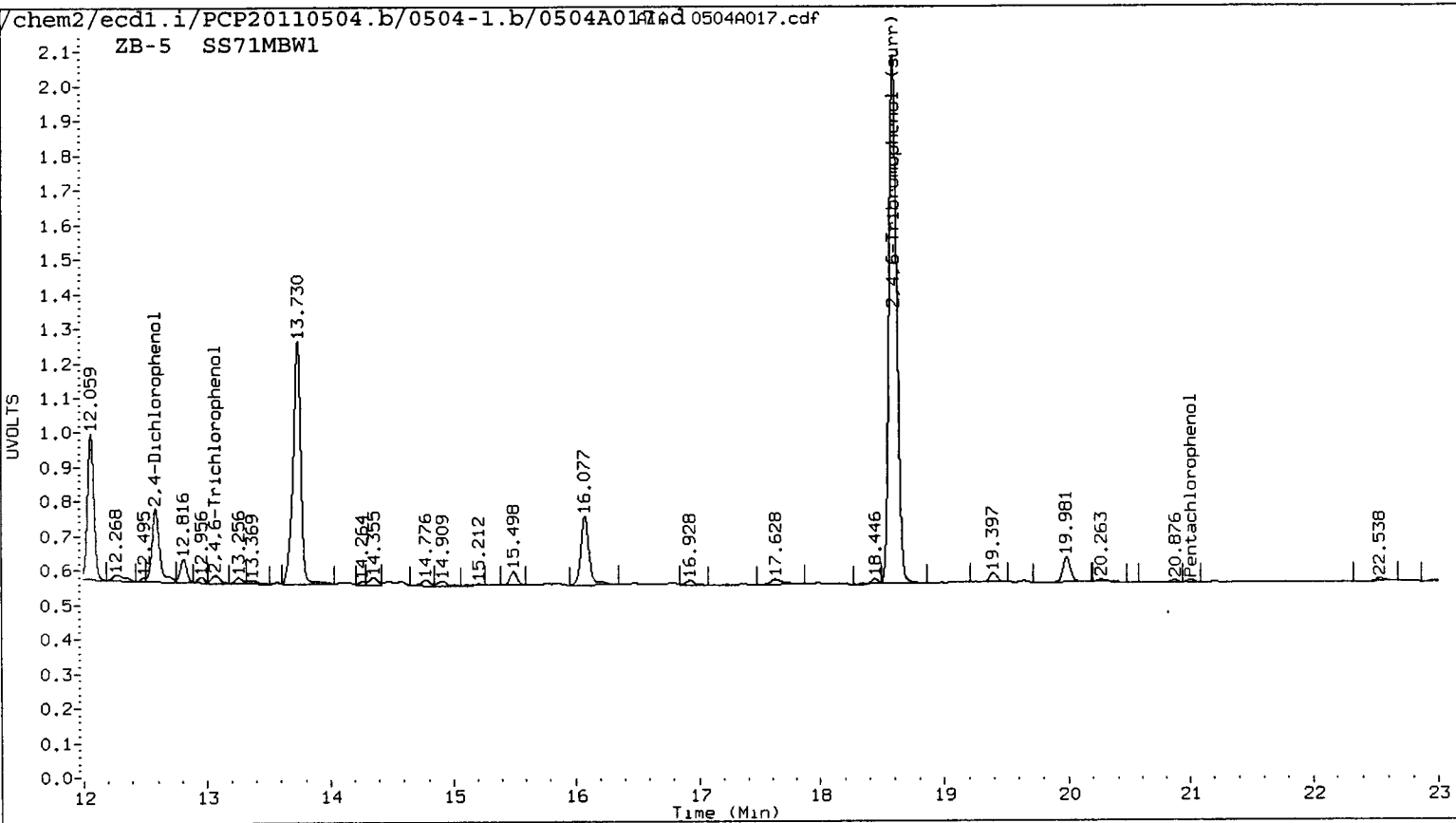
AR 5/6/2011

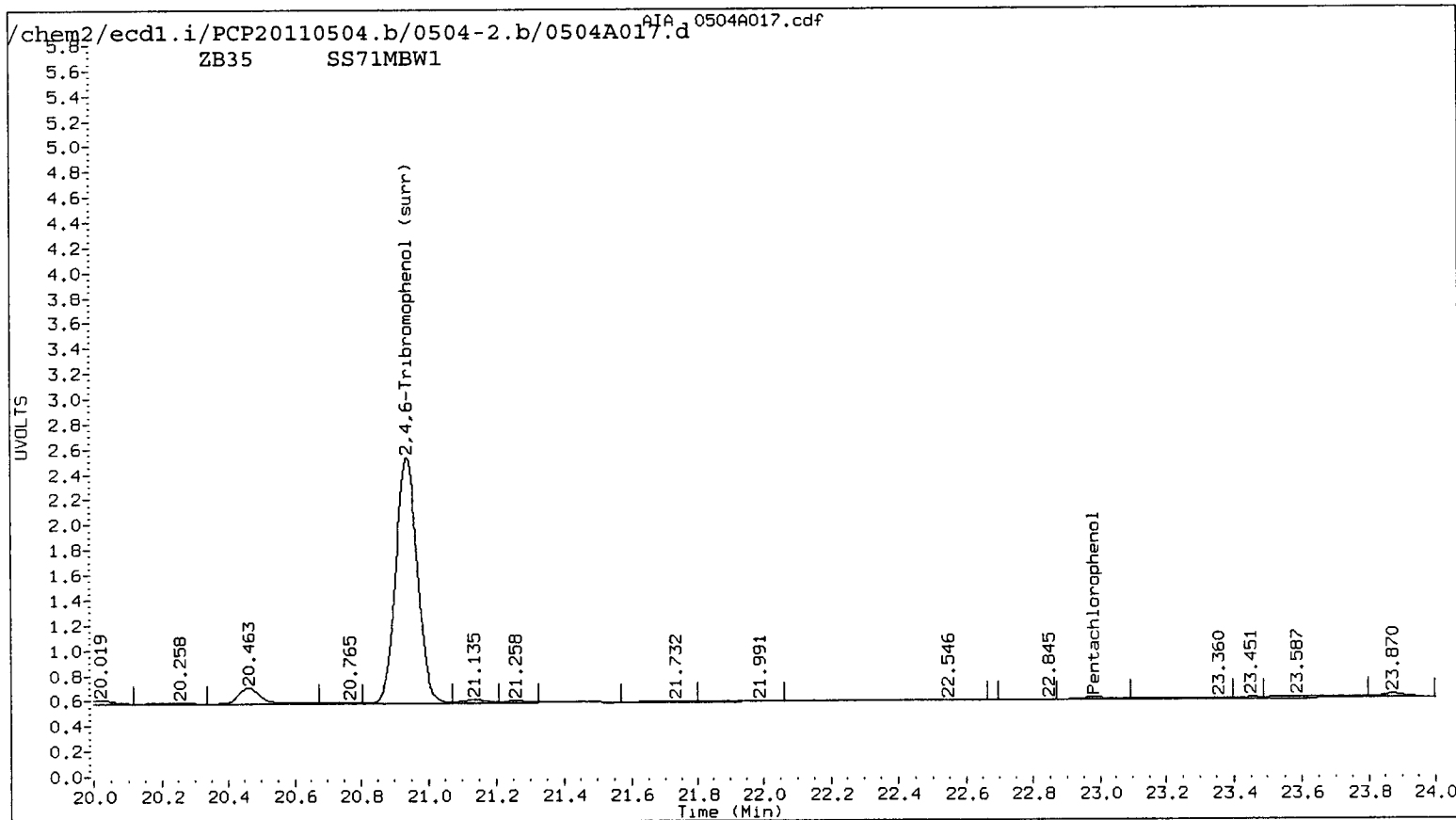
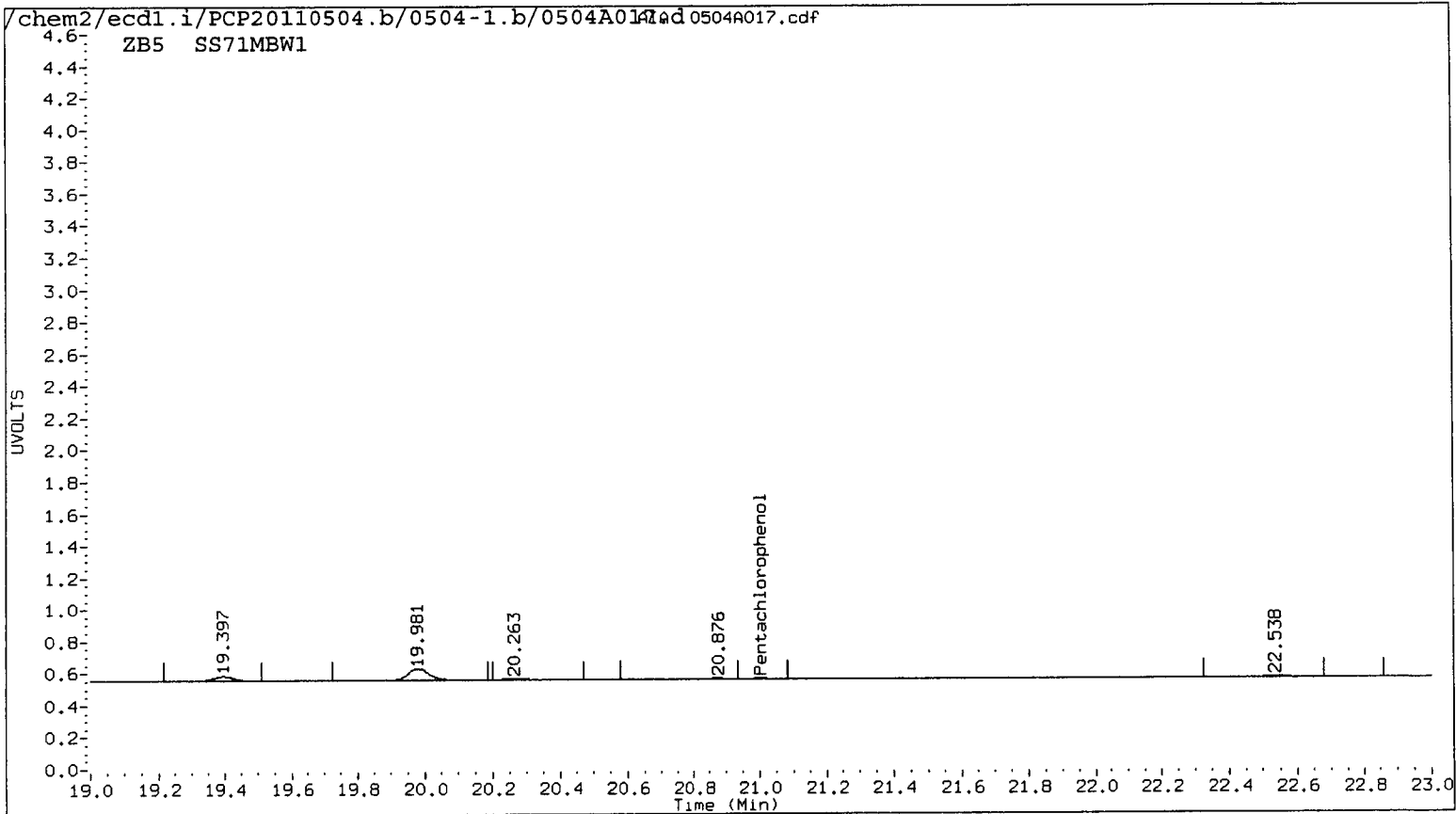
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A017.d Client ID: SS71MBW1
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 18:46
 Compound Sublist: all Report Date: 05/06/2011 11:11
 Instrument: ecd1.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.003	0.006	1445	22.981	0.014	5647	0.0717	0.2006	94.6*	Pentachlorophenol
13.074	-0.027	5528	----			0.4542	0.0000	---	2,4,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,4,5-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,4-Trichlorophenol
----			18.847	0.033	1340	0.0000	0.0611	---	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.586	0.031	46453	13.818	-0.002	3232	61.1019	3.6530	177.4*	2,4-Dichlorophenol
18.597	0.001	321651	20.938	0.002	431793	20.4	20.5	0.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	81.7	82.2



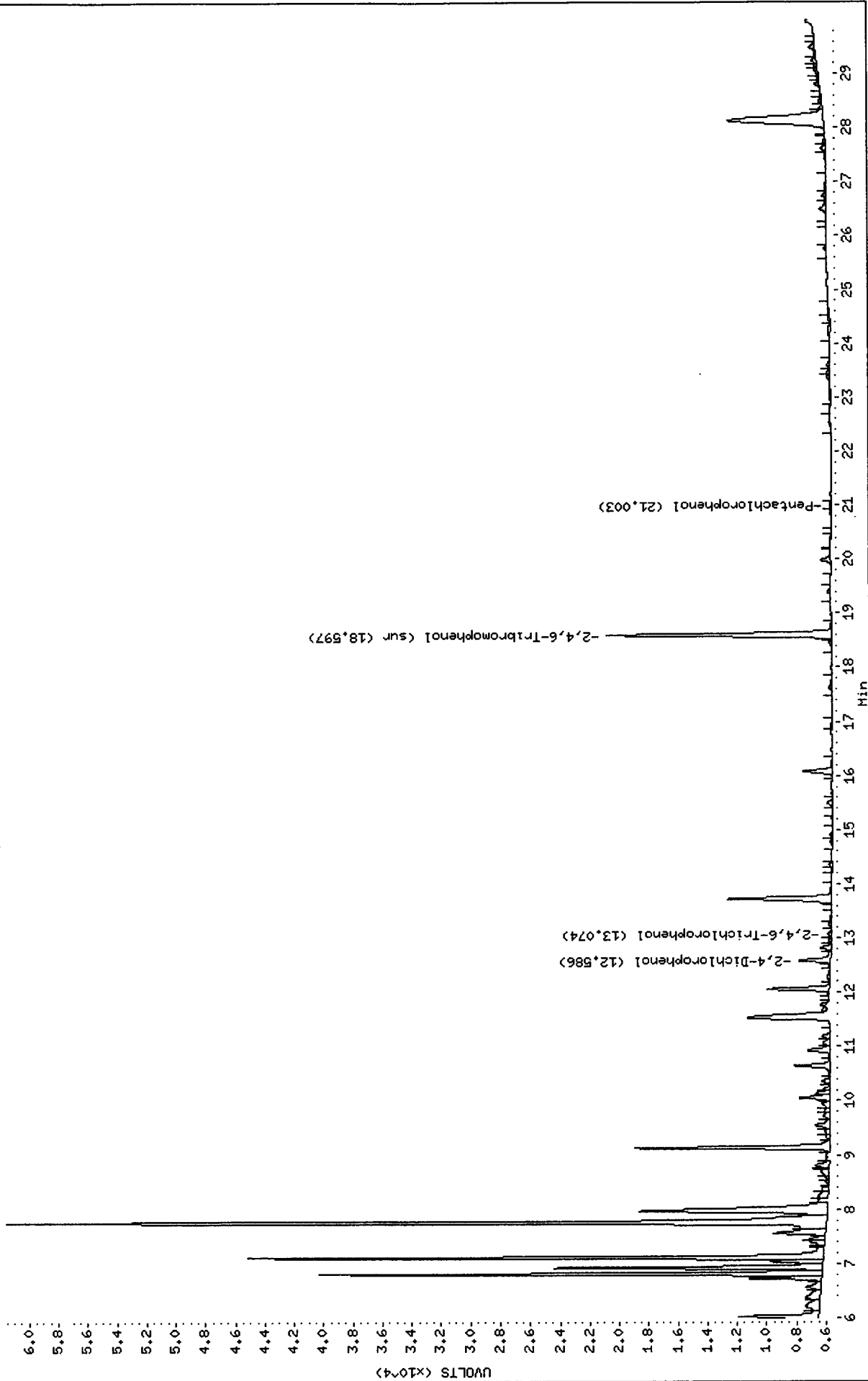


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Date: 04-MAY-2011 18:46
Client ID: SS71HBM1
Sample Info: SS71HBM1
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecd1.i

Operator: ar
Column diameter: 0.53

/chem2/ecdl1.i/PCP20110504.b/0504-1.b/0504A017.d/0504A017.cdf



Data File: /chem2/ecd1.i/PCP20110504.b/0504-2.b/0504A017.d

Date : 04-MAY-2011 18:46

Client ID: SS71MBW1

Sample Info: SS71MBW1

Purge Volume: 500.0

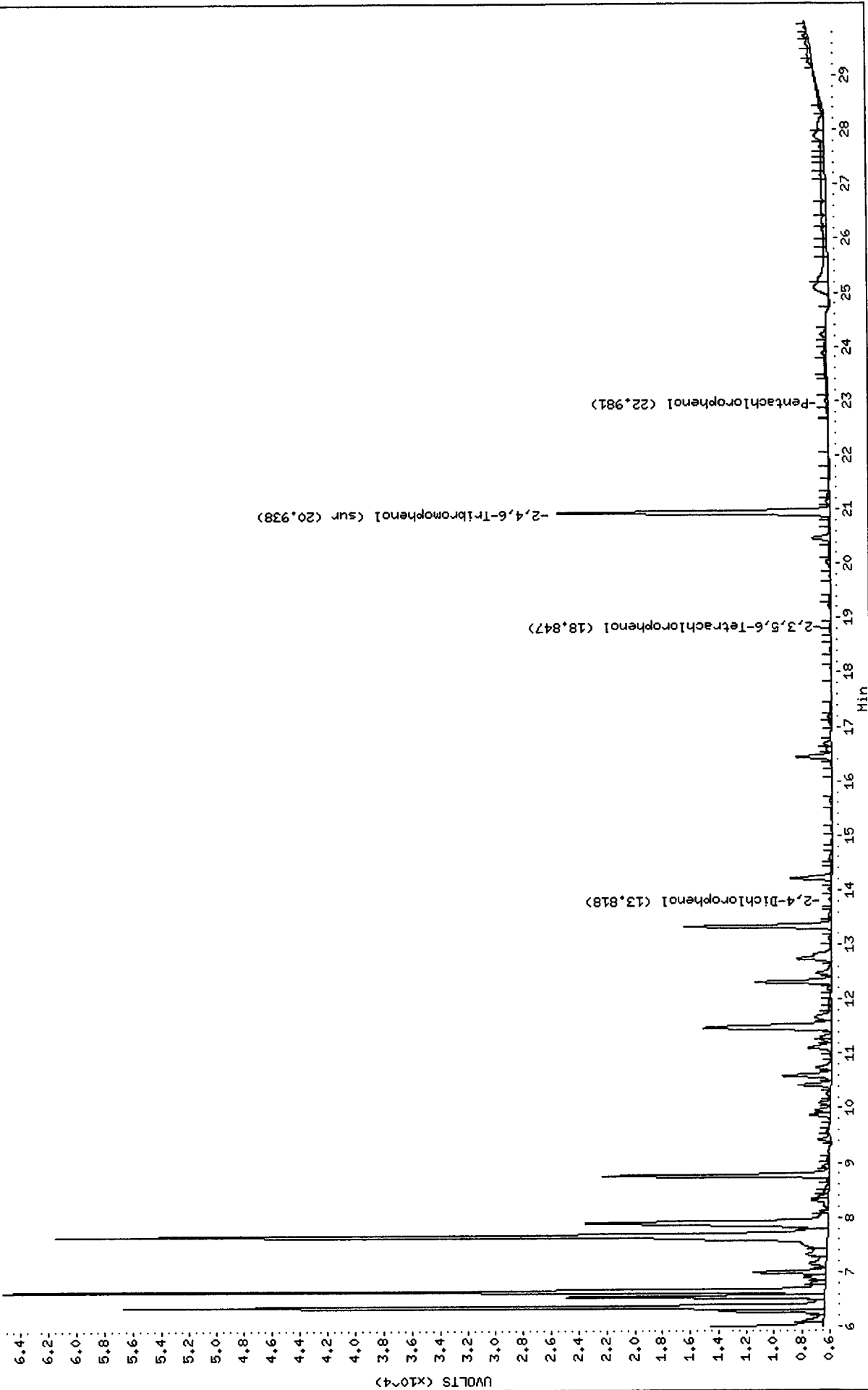
Column phase: STX CLP2

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

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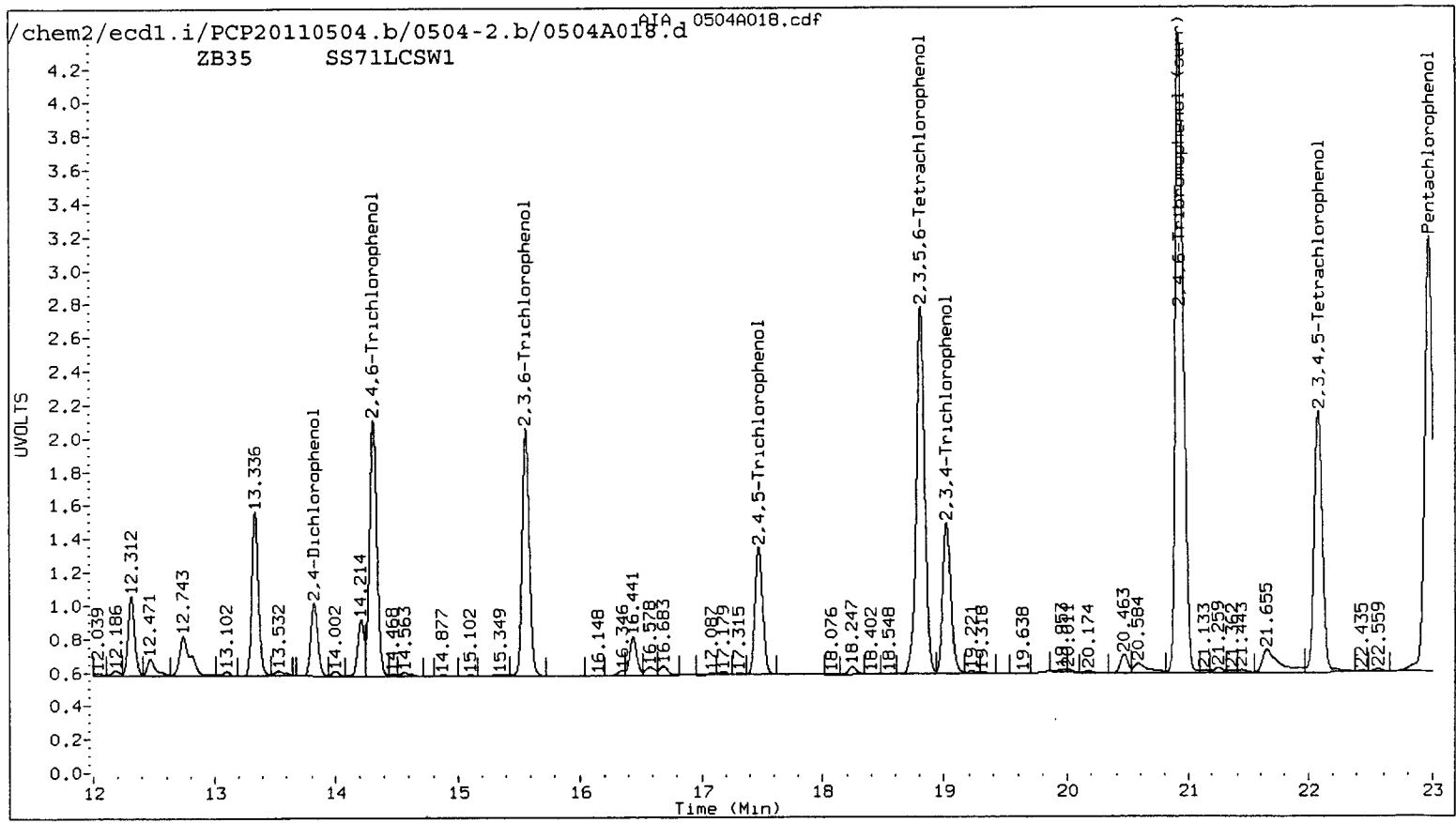
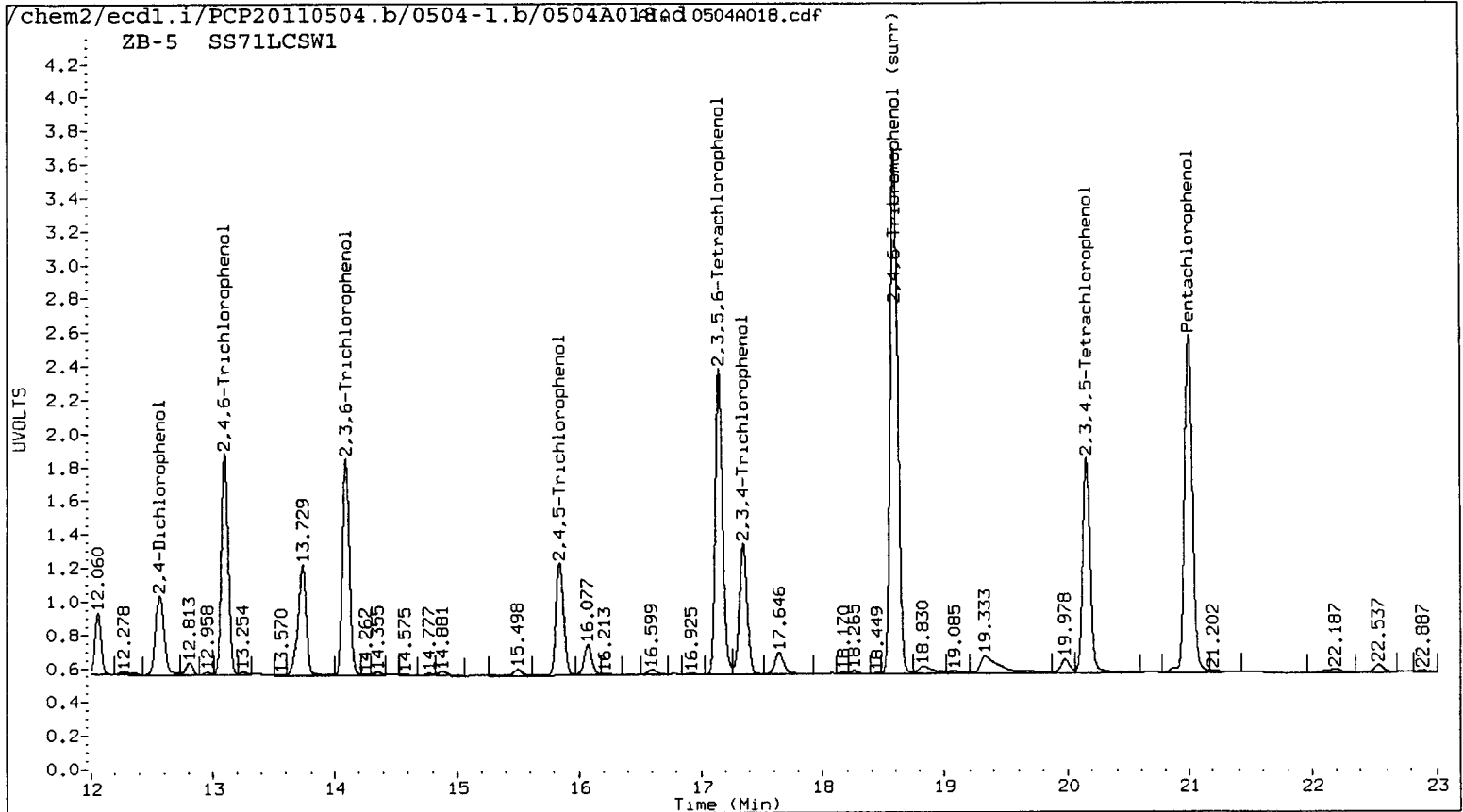
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

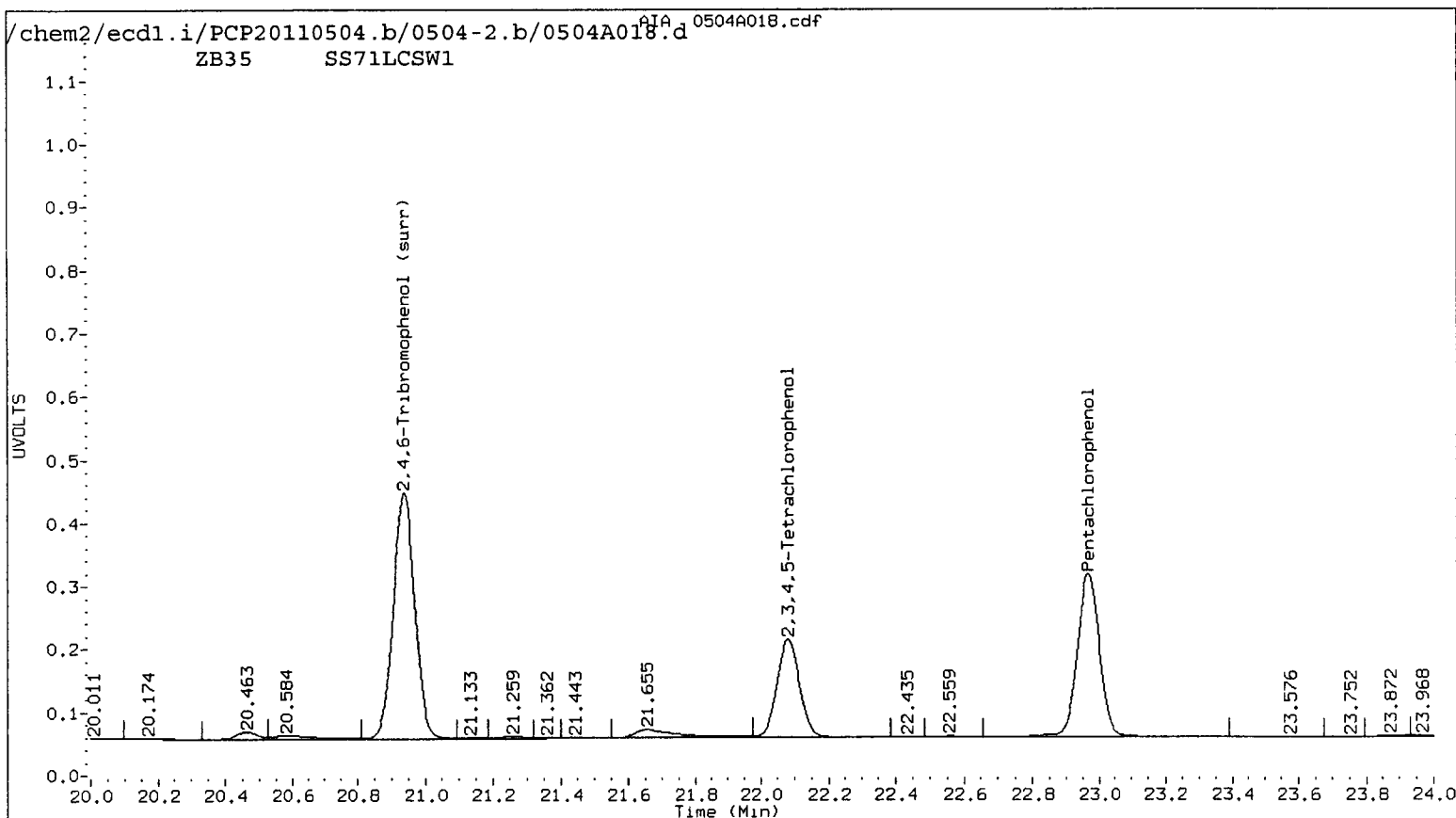
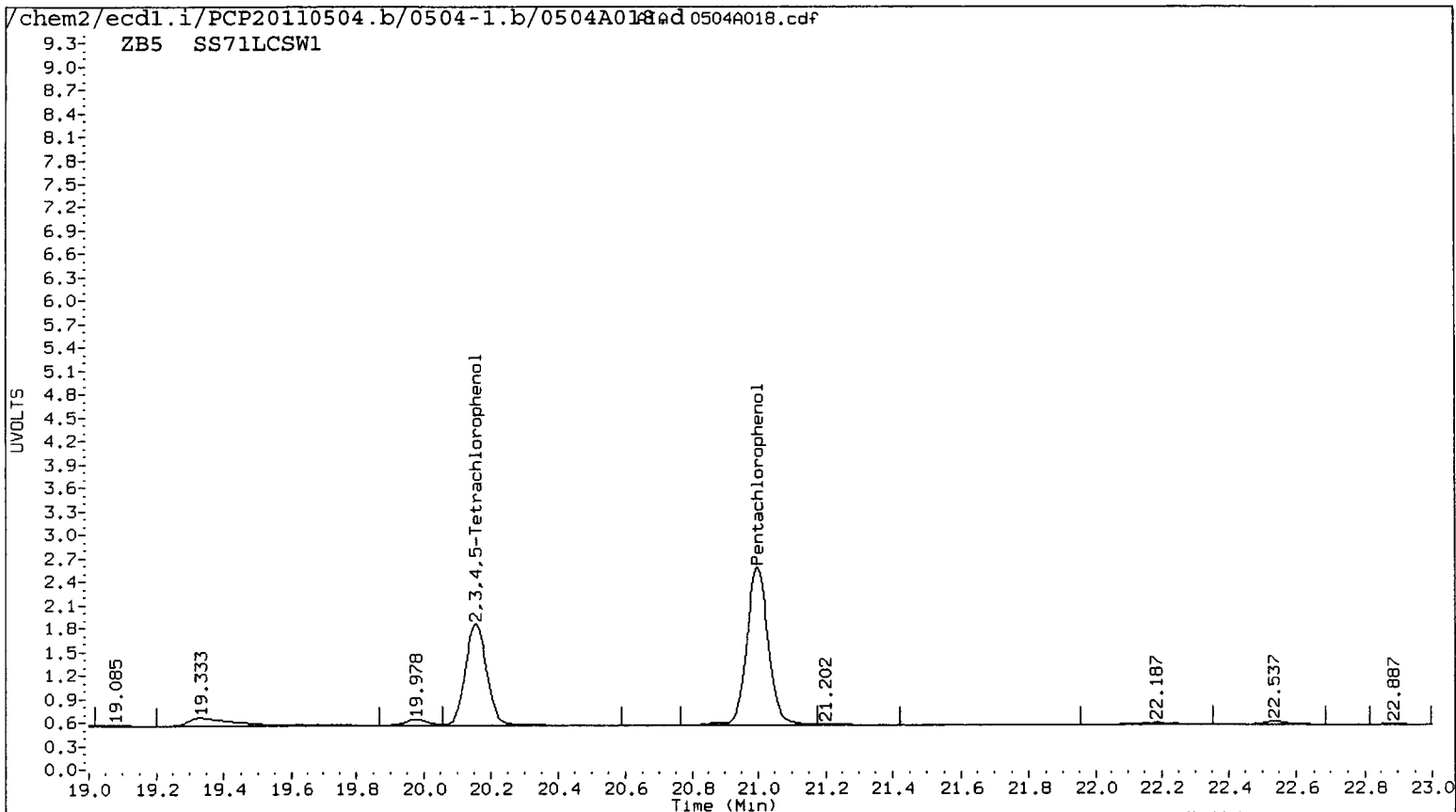
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A018.d Client ID: SS71LCSW1
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 19:22
 Compound Sublist: all Report Date: 05/06/2011 11:11
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.998	0.001	459962	22.968	0.001	616343	22.8279	21.8865	4.2	Pentachlorophenol
13.102	0.001	259132	14.313	0.002	313270	21.2879	21.6141	1.5	2,4,6-Trichlorophenol
14.097	0.000	260325	15.560	0.003	311692	22.7306	21.6853	4.7	2,3,6-Trichlorophenol
15.846	0.001	143538	17.476	0.002	165481	21.2340	20.4407	3.8	2,4,5-Trichlorophenol
17.352	0.001	176759	19.024	0.001	206746	21.1553	22.3033	5.3	2,3,4-Trichlorophenol
17.154	0.001	386228	18.815	0.001	515268	22.8447	23.4875	2.8	2,3,5,6-Tetrachlorophenol
20.155	0.001	291933	22.082	0.002	367525	22.4879	23.9483	6.3	2,3,4,5-Tetrachlorophenol
12.564	0.009	116995	13.822	0.002	92494	168.5093	118.6825	34.7	2,4-Dichlorophenol
18.596	0.001	664844	20.938	0.002	872119	42.2	41.5	1.8	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	91.3	87.5
2,4,6-Trichlorophenol	85.2	86.5
2,3,6-Trichlorophenol	90.9	86.7
2,4,5-Trichlorophenol	84.9	81.8
2,3,4-Trichlorophenol	84.6	89.2
2,3,5,6-Tetrachlorophenol	91.4	94.0
2,3,4,5-Tetrachlorophenol	90.0	95.8
2,4-Dichlorophenol	67.4	47.5
2,4,6-TBP (surr)	84.5	83.0





Data File: /chem2/ecd1.i/PCP20110504.b/0504-1.b/0504A018.d

Date: 04-MAY-2011 19:22

Client ID: SS71LCSM1

Sample Info: SS71LCSM1

Purge Volume: 500.0

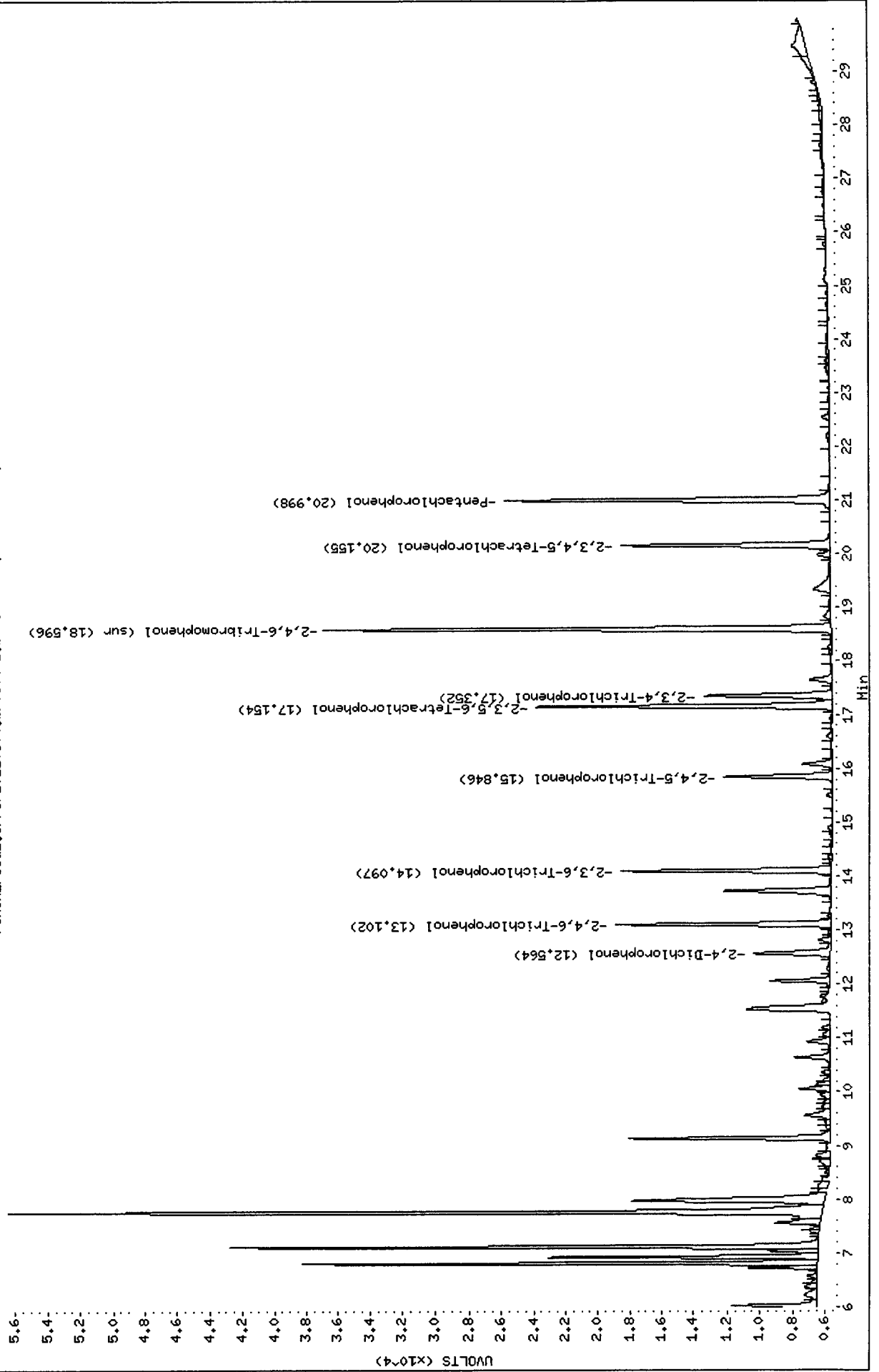
Column phase: STX CLP1

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

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Data File: /chem2/ecdl1.i/PCP20110504.b/0504-2.b/0504018.d

Date : 04-MAY-2011 19:22

Client ID: SS71LCSM1

Sample Info: SS71LCSM1

Purge Volume: 500.0

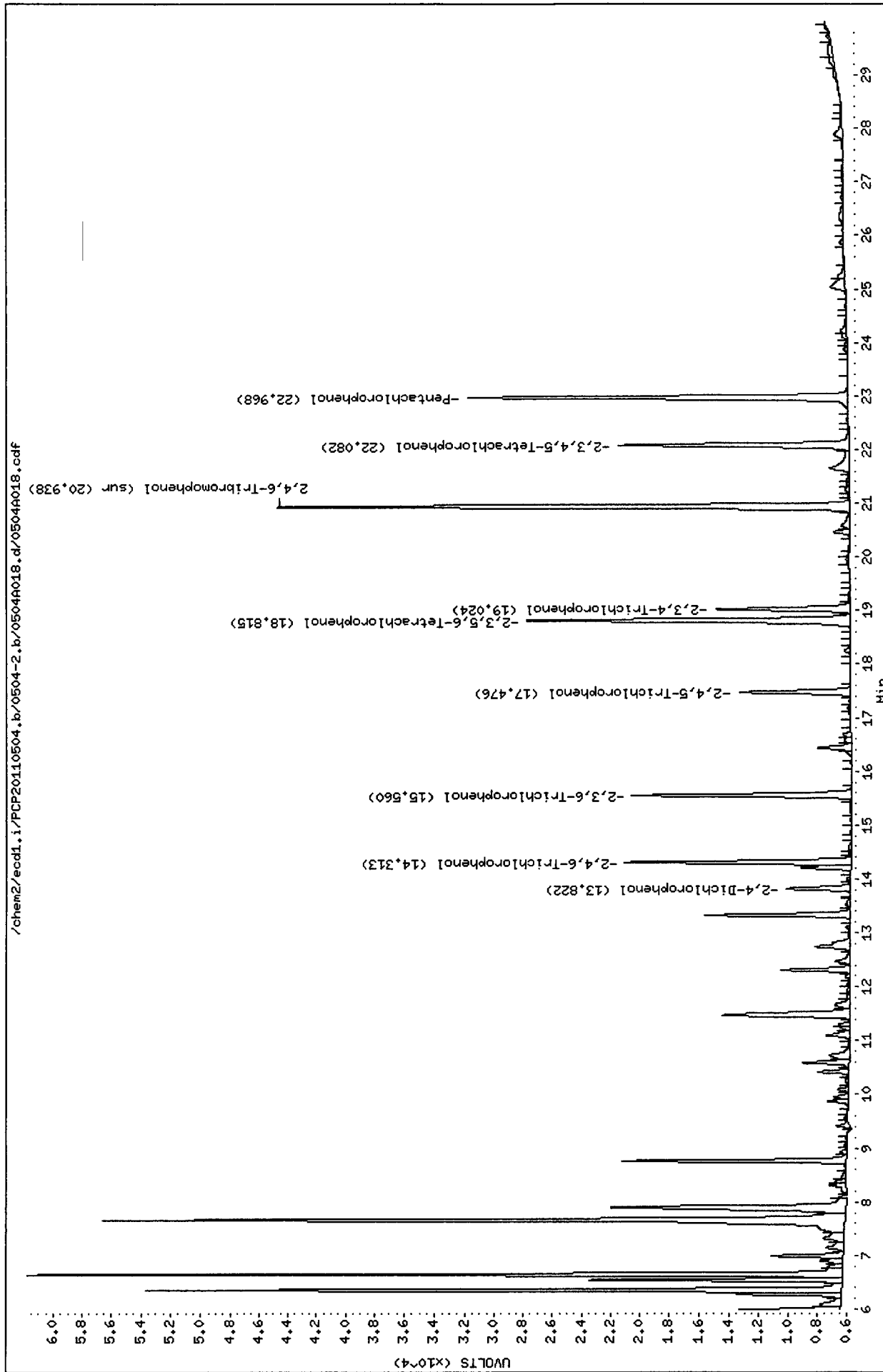
Column phase: STX CLP2

Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

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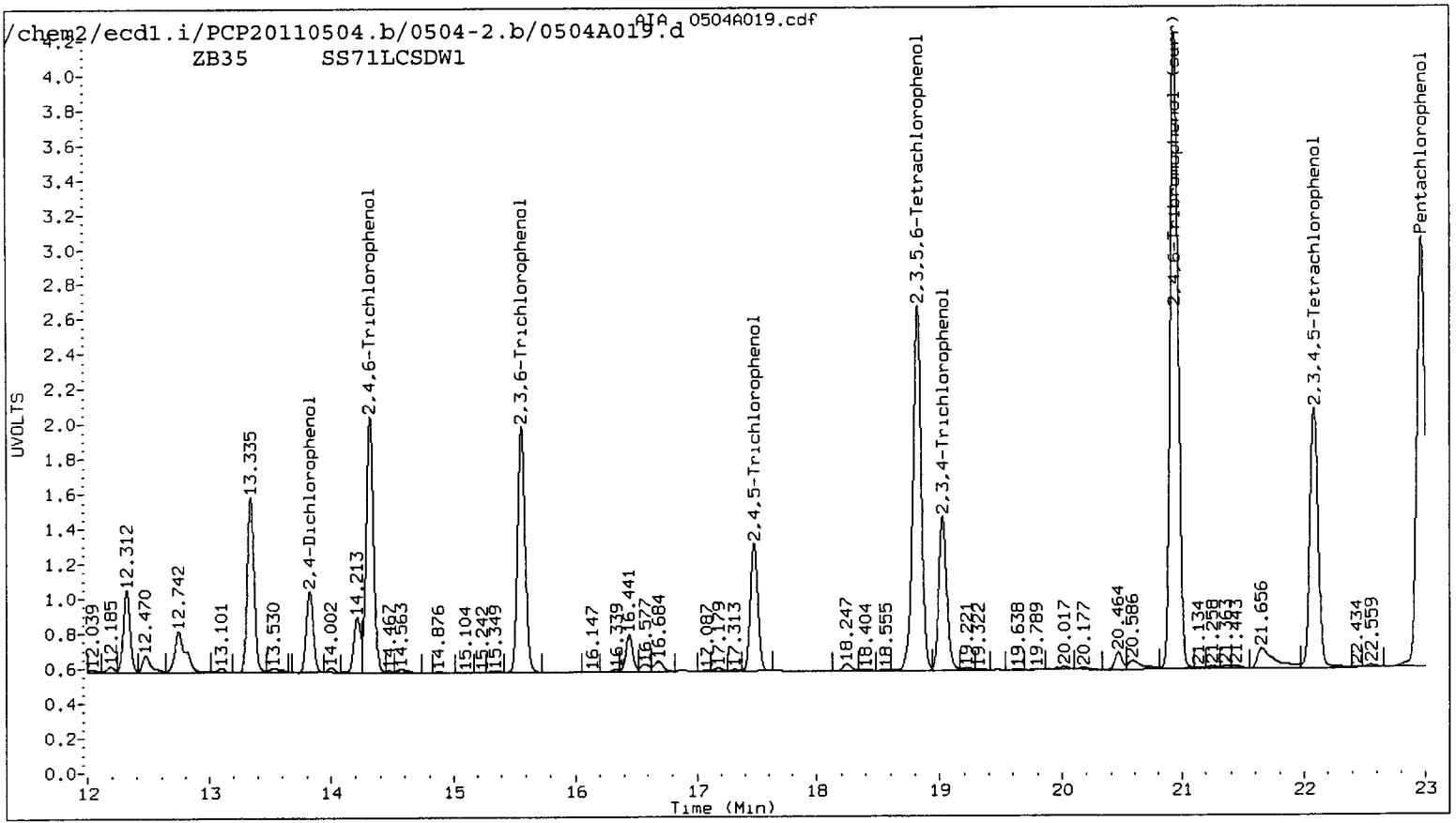
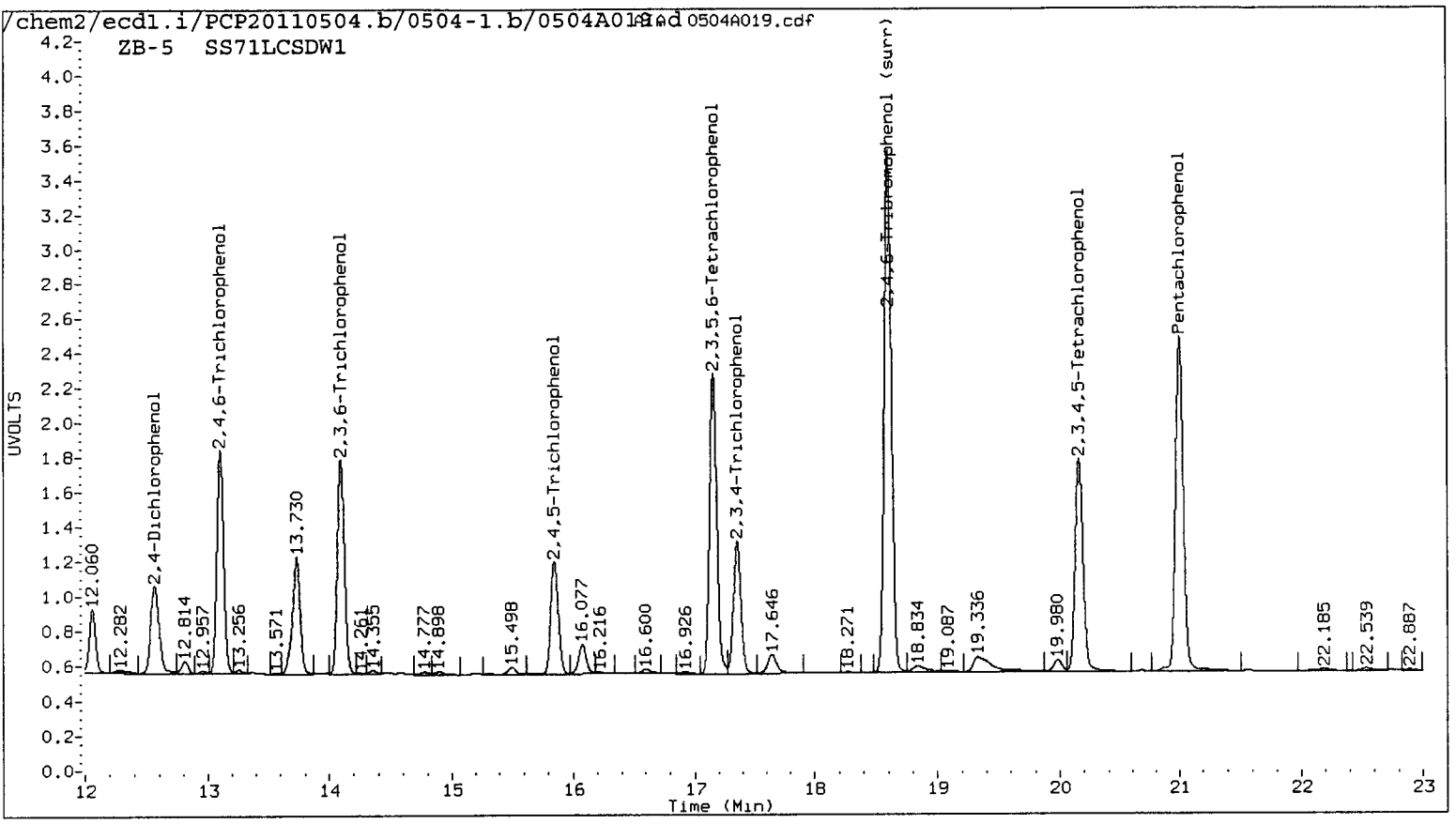
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

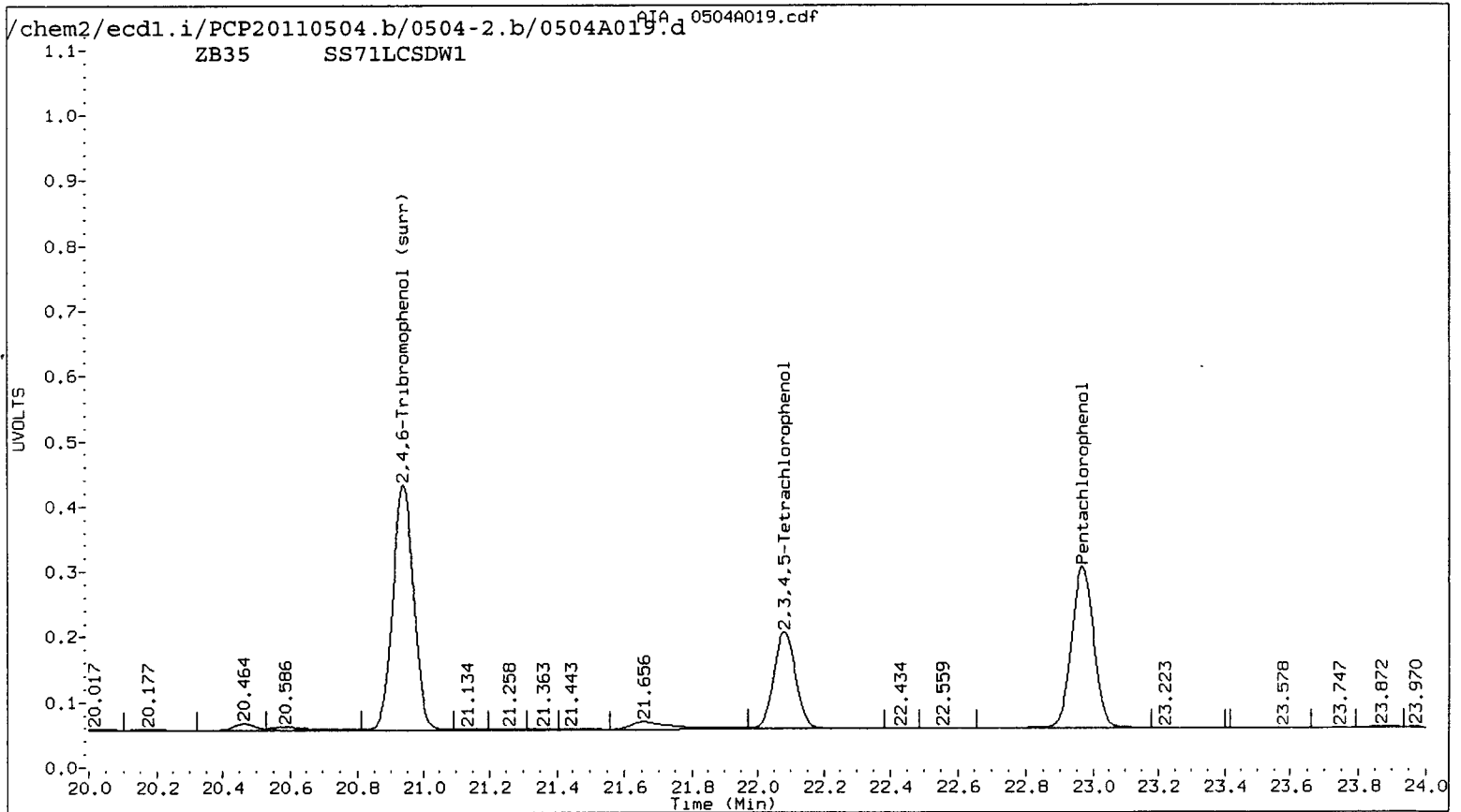
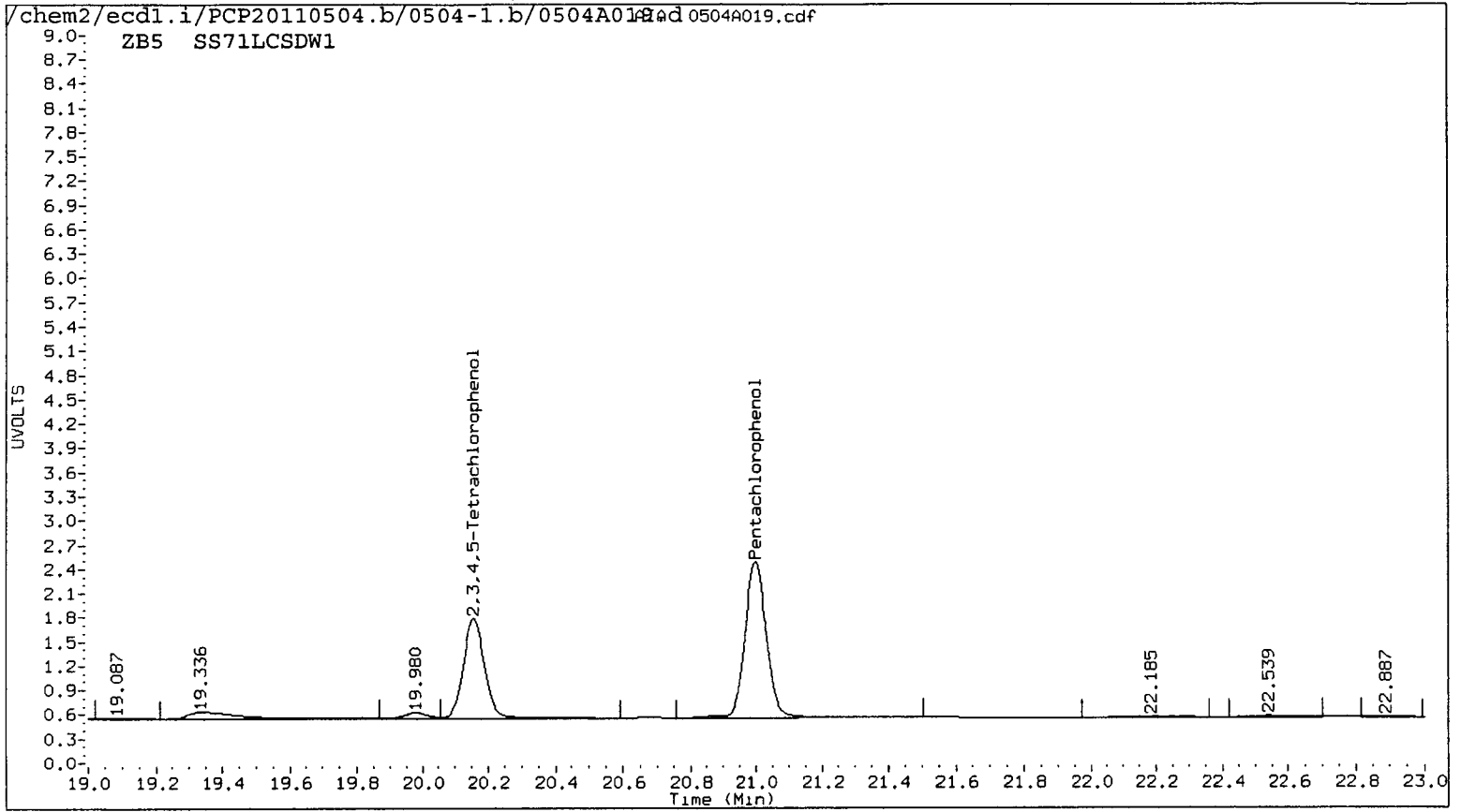
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 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 19:59
 Compound Sublist: all Report Date: 05/06/2011 11:11
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.999	0.002	440240	22.969	0.002	580351	21.8491	20.6084	5.8	Pentachlorophenol
13.102	0.001	249689	14.312	0.001	303442	20.5121	20.9361	2.0	2,4,6-Trichlorophenol
14.098	0.001	249716	15.559	0.002	297326	21.8043	20.6858	5.3	2,3,6-Trichlorophenol
15.846	0.001	136705	17.475	0.001	159571	20.1034	19.7107	2.0	2,4,5-Trichlorophenol
17.353	0.002	169744	19.024	0.001	202684	20.3156	21.8145	7.1	2,3,4-Trichlorophenol
17.154	0.001	366416	18.815	0.001	484710	21.6728	22.0946	1.9	2,3,5,6-Tetrachlorophenol
20.157	0.002	278861	22.082	0.002	350017	21.4811	22.6940	5.5	2,3,4,5-Tetrachlorophenol
12.564	0.009	122839	13.822	0.002	98175	178.1981	126.9286	33.6	2,4-Dichlorophenol
18.597	0.002	638445	20.938	0.002	835679	40.6	39.7	2.0	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	87.4	82.4
2,4,6-Trichlorophenol	82.0	83.7
2,3,6-Trichlorophenol	87.2	82.7
2,4,5-Trichlorophenol	80.4	78.8
2,3,4-Trichlorophenol	81.3	87.3
2,3,5,6-Tetrachlorophenol	86.7	88.4
2,3,4,5-Tetrachlorophenol	85.9	90.8
2,4-Dichlorophenol	71.3	50.8
2,4,6-TBP (surr)	81.1	79.5





Data File: /chem2/ecdl1.i/PCP20110504.b/0504-1.b/0504A019.d

Date : 04-MAY-2011 19:59

Client ID: SS71LCSDM1

Sample Info: SS71LCSDM1

Purge Volume: 500.0

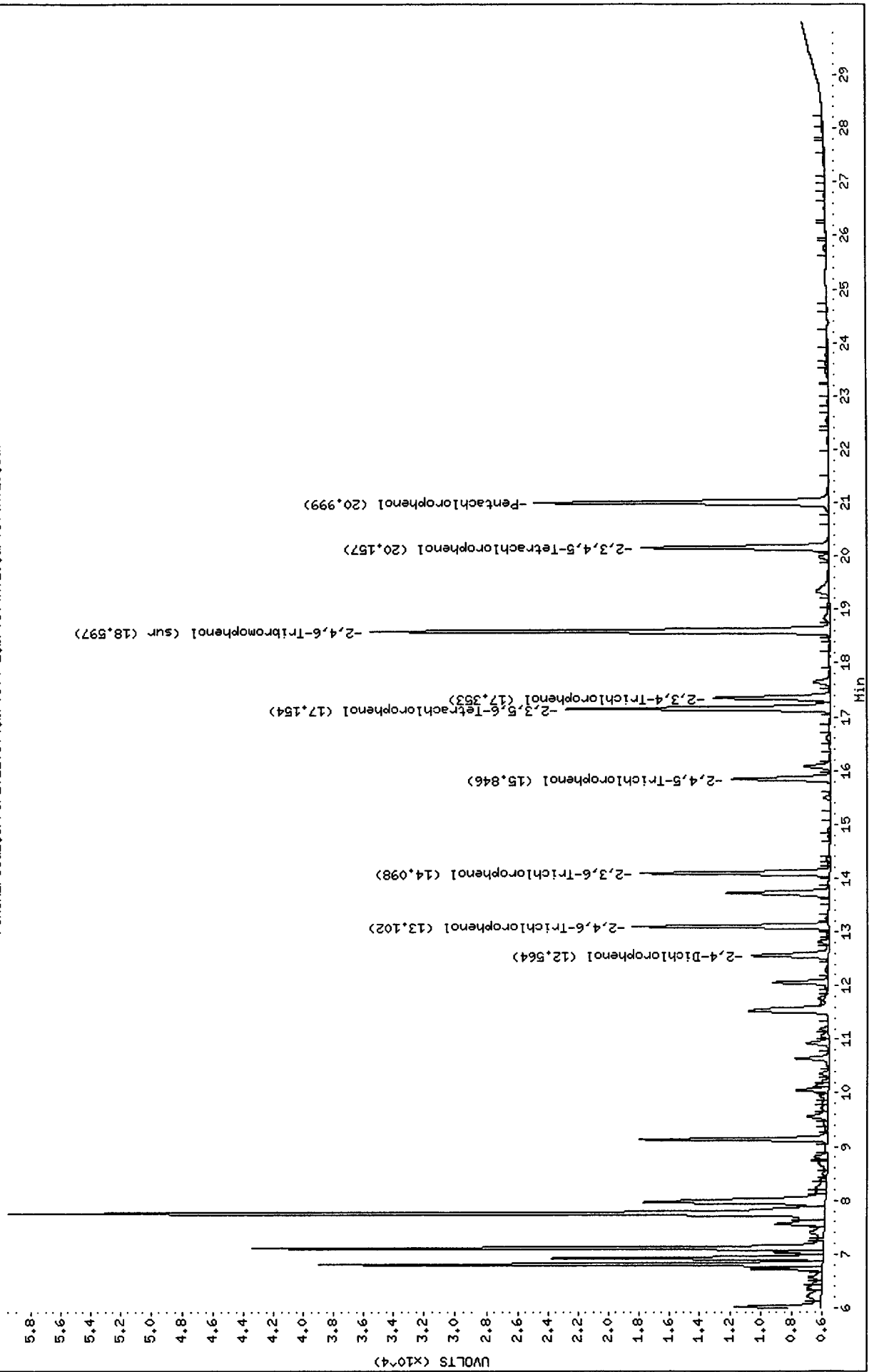
Column phase: STX CLP1

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

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Data File: /chem2/ecdd1.i/PCP20110504.b/0504-2.b/0504A019.d

Date : 04-MAY-2011 19:59

Client ID: SS71LCSDM1

Sample Info: SS71LCSDM1

Purge Volume: 500.0

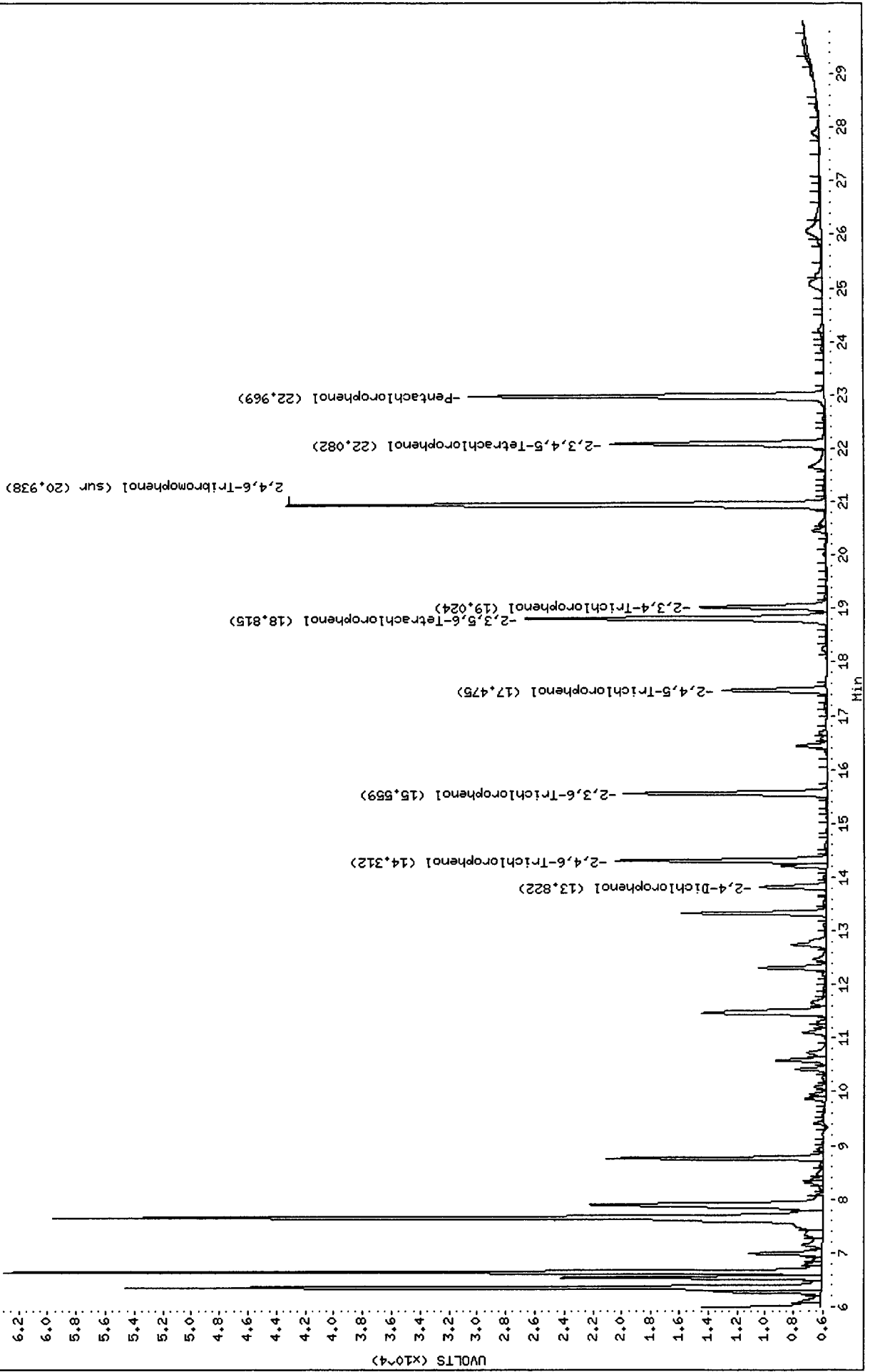
Column phase: STX CLP2

Instrument: ecdd1.i

Operator: ar

Column diameter: 0.53

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Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

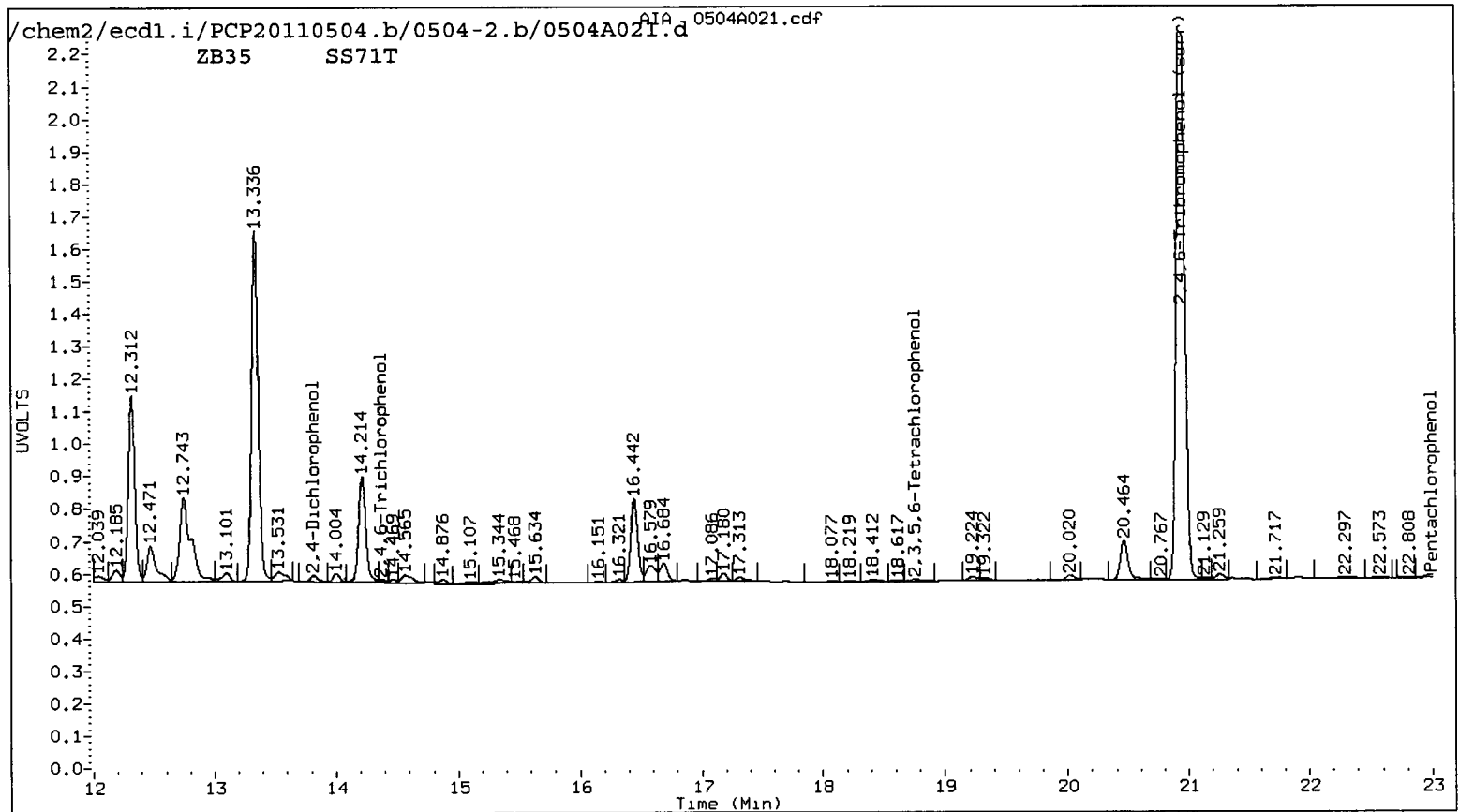
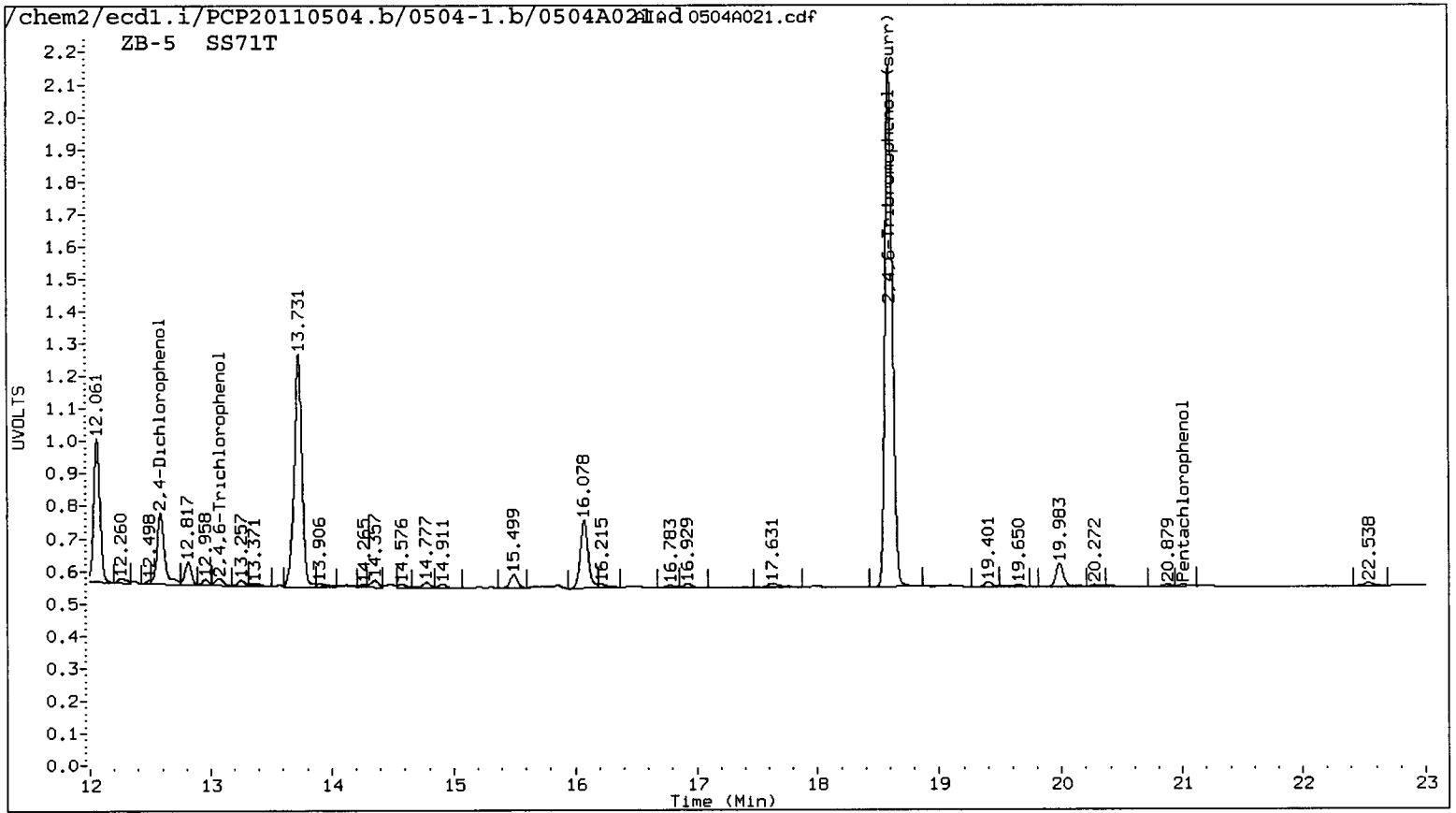
AR 5/6/2011

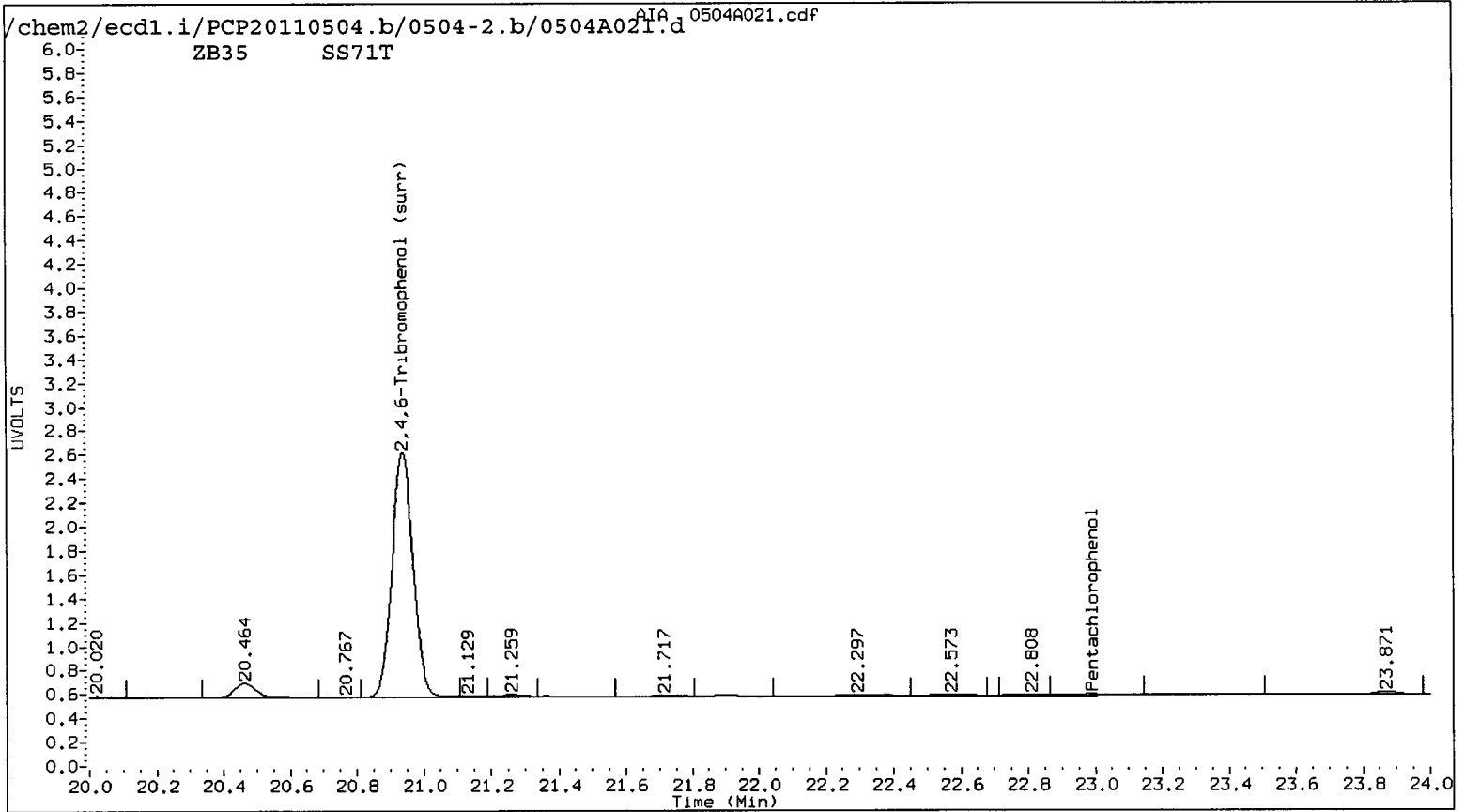
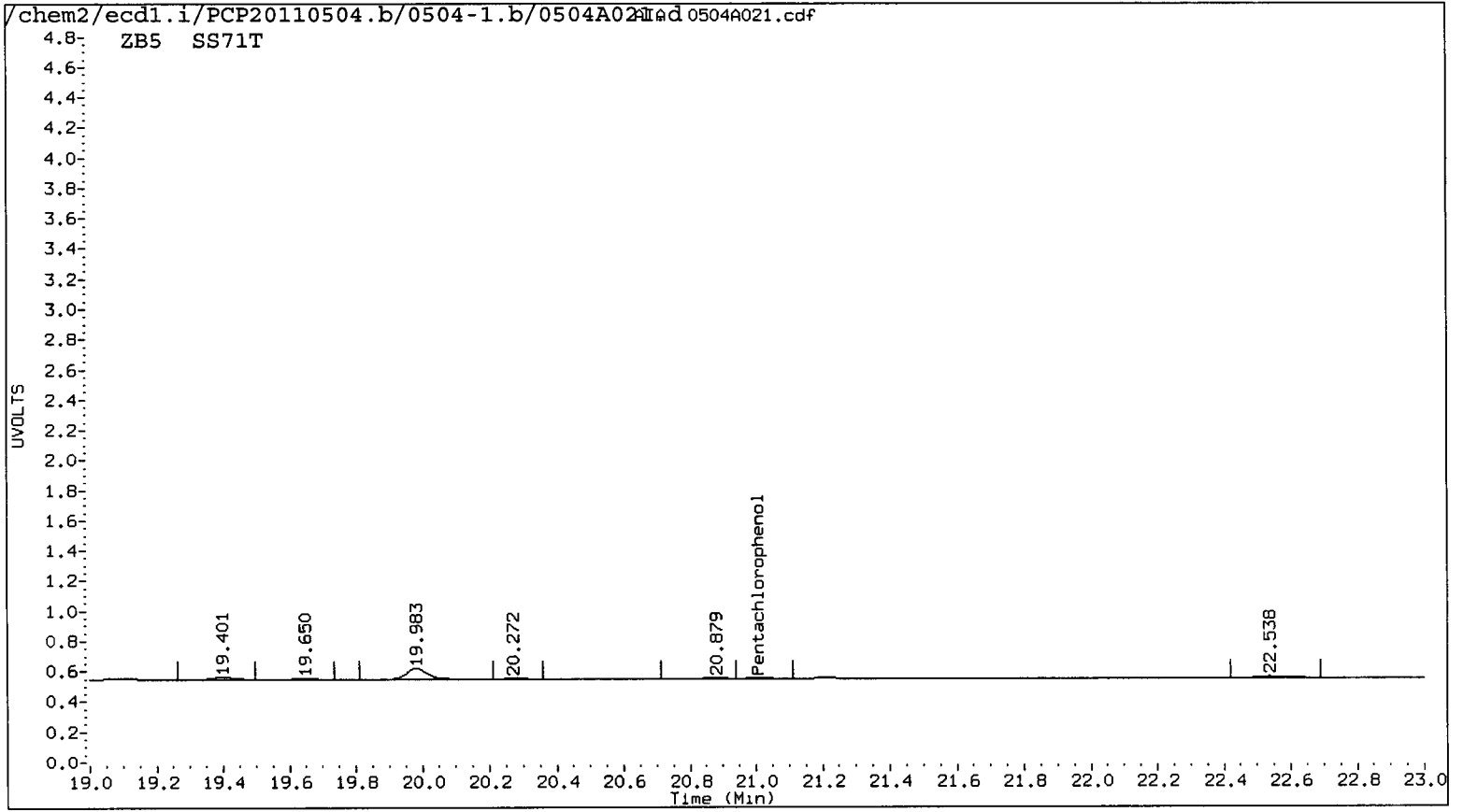
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 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 04-MAY-2011 21:11
 Compound Sublist: all Report Date: 05/06/2011 11:11
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.006	0.009	1180	22.988	0.021	3521	0.0586	0.1251	72.4*	Pentachlorophenol
13.075	-0.026	5396	14.372	0.061	1721	0.4433	0.1188	115.5*	2,4,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,4,5-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,4-Trichlorophenol
----			18.758	-0.056	1991	0.0000	0.0908	---	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.587	0.032	48331	13.818	-0.002	3587	63.7320	4.0562	176.1*	2,4-Dichlorophenol
18.598	0.002	336985	20.938	0.002	451882	21.4	21.5	0.4	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

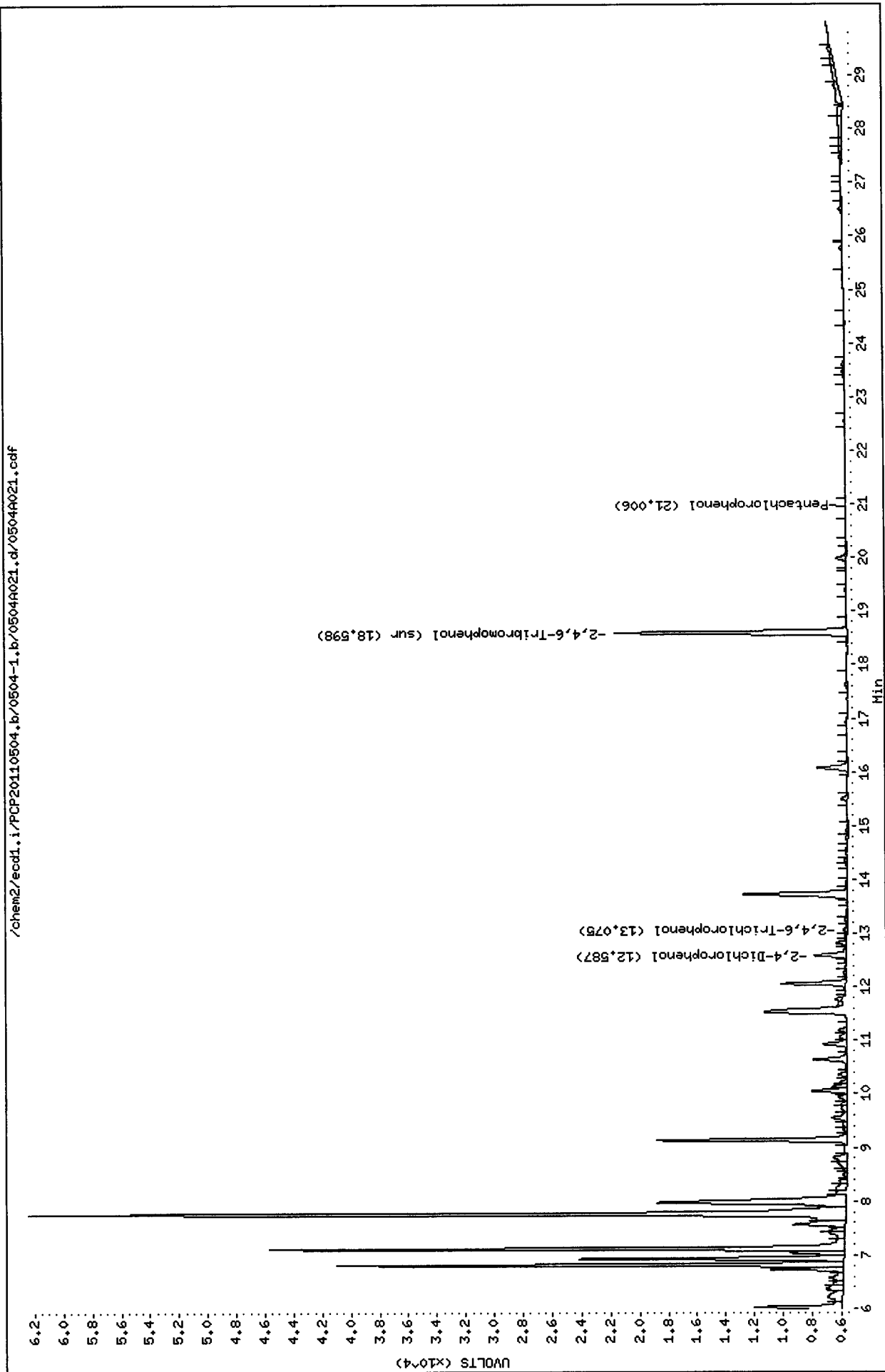
COMPOUND	Col1	Col2
2,4,6-TBP (surr)	85.6	86.0





Data File: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A021.d
Date : 04-MAY-2011 21:11
Client ID: LL-ER-041911
Sample Info: SS71T
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecdl.i
Operator: ar
Column diameter: 0.53



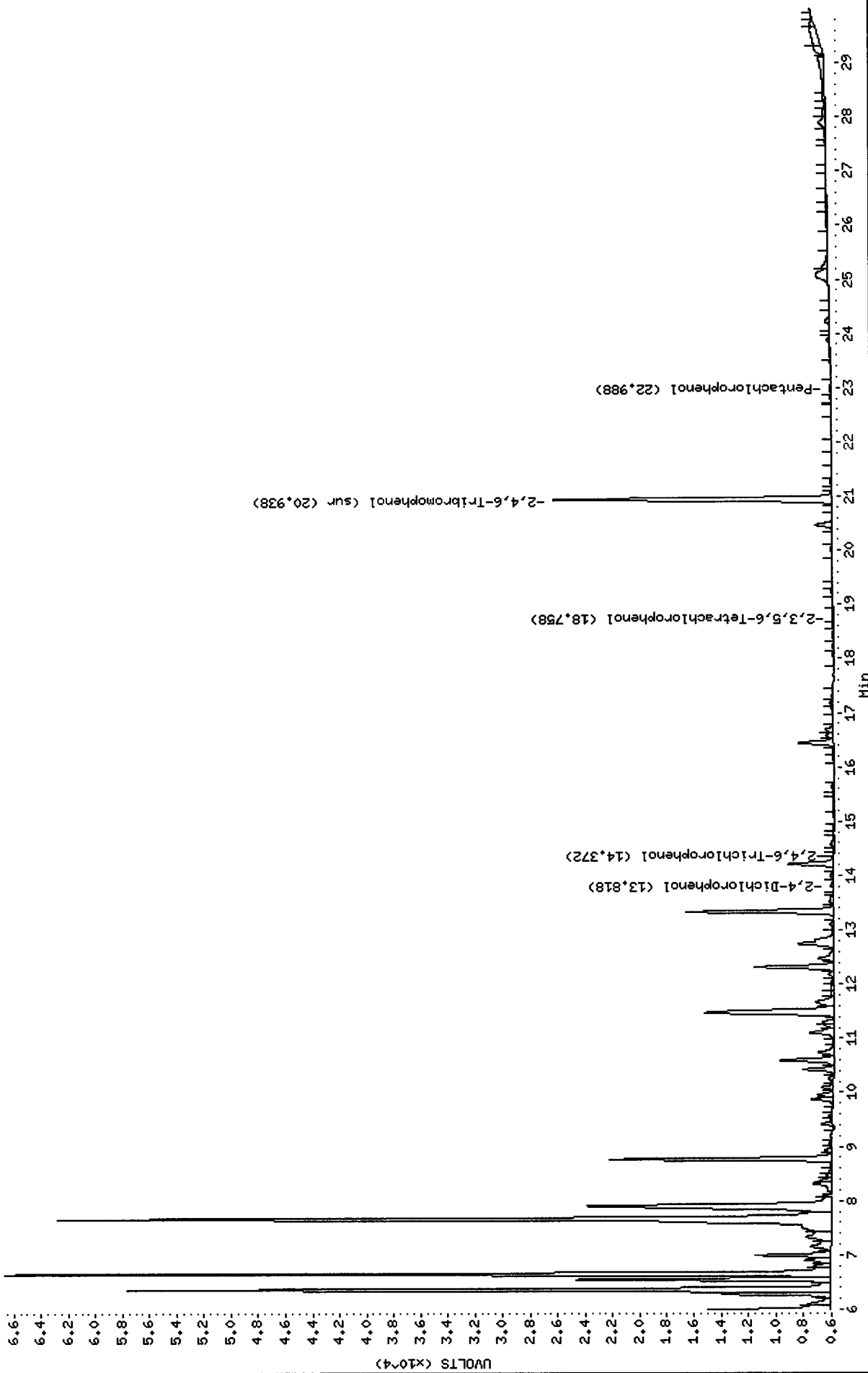
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Date : 04-MAY-2011 21:11
Client ID: LL-ER-041911
Sample Info: SS71T
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

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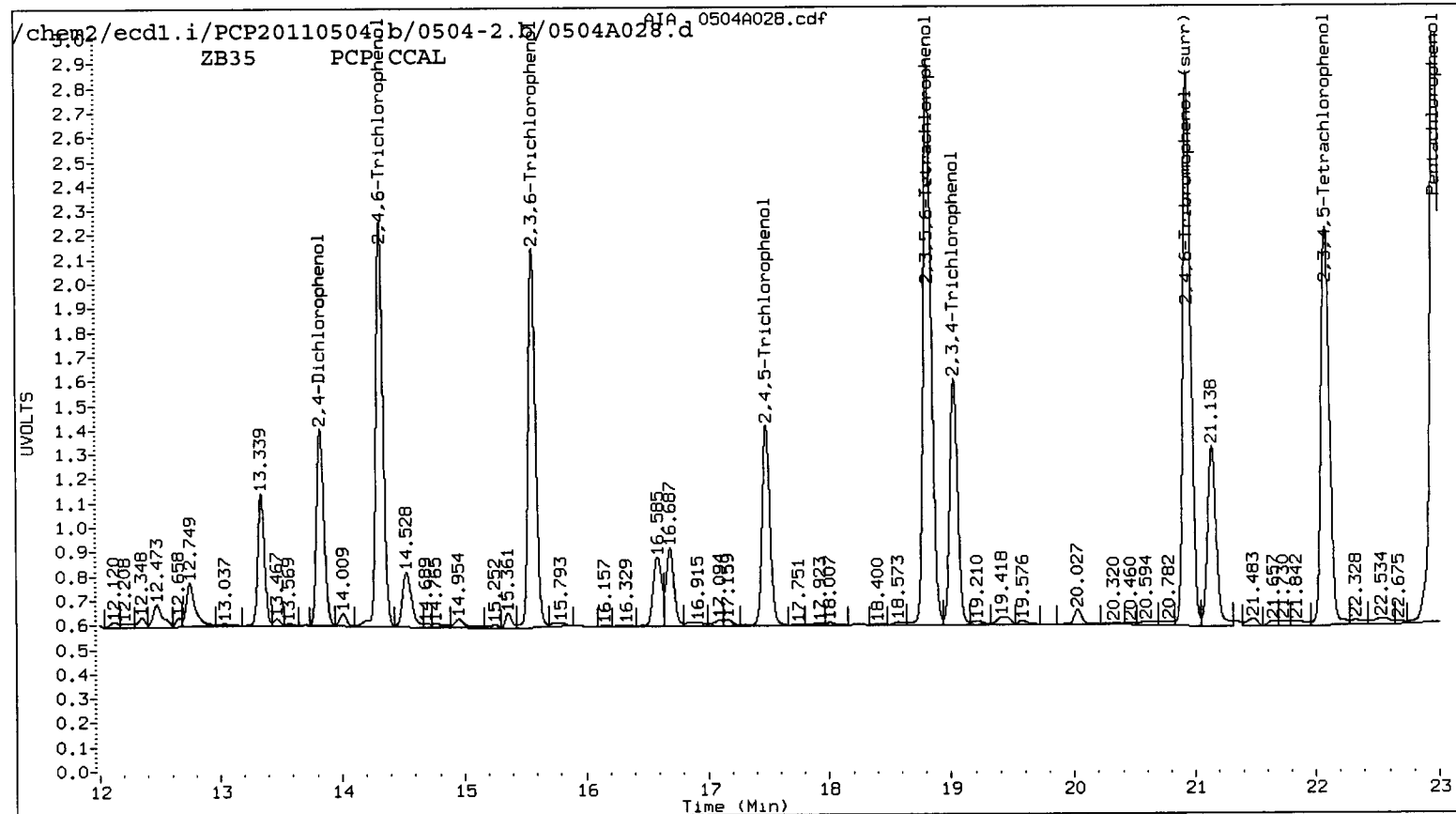
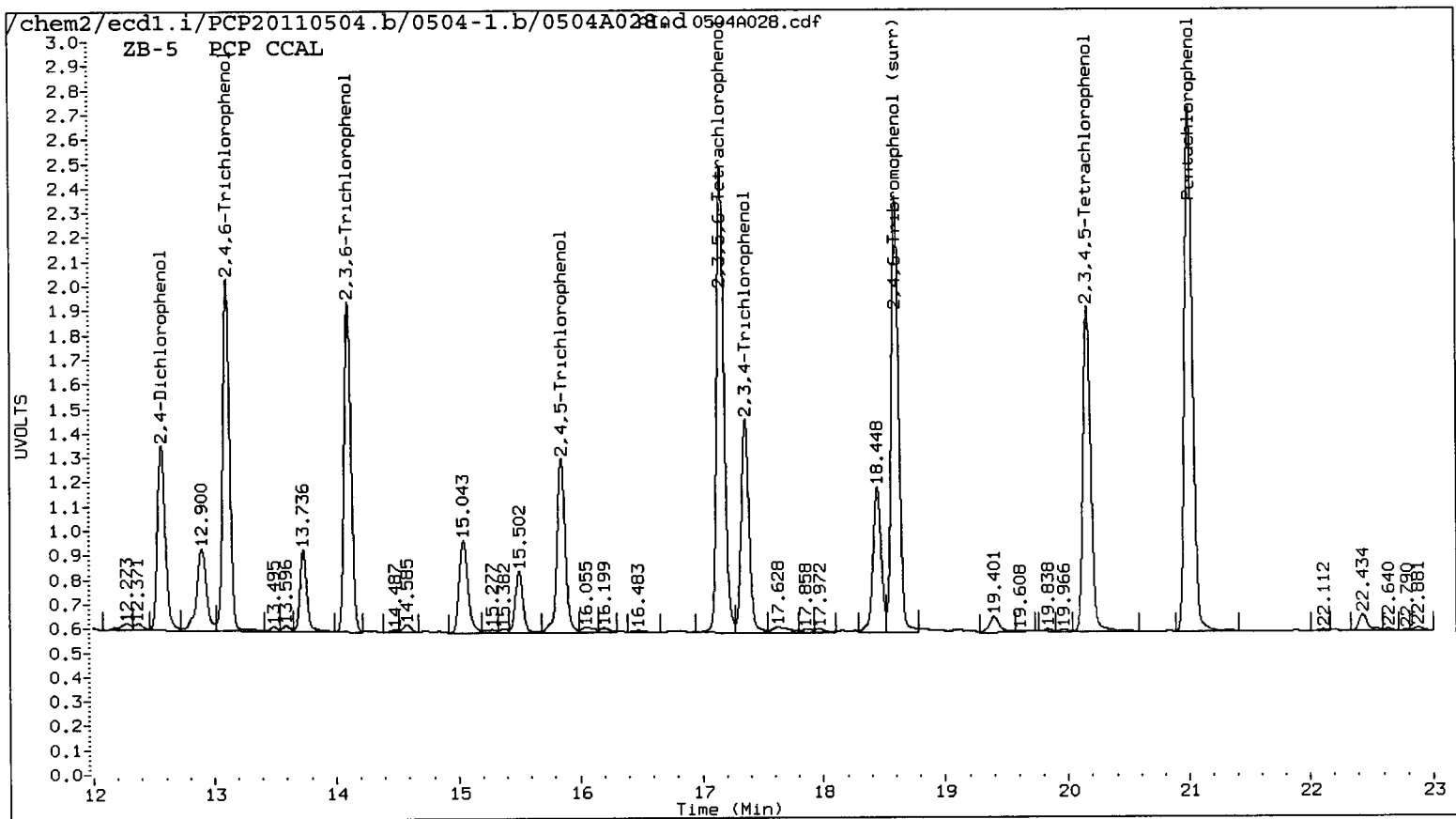
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

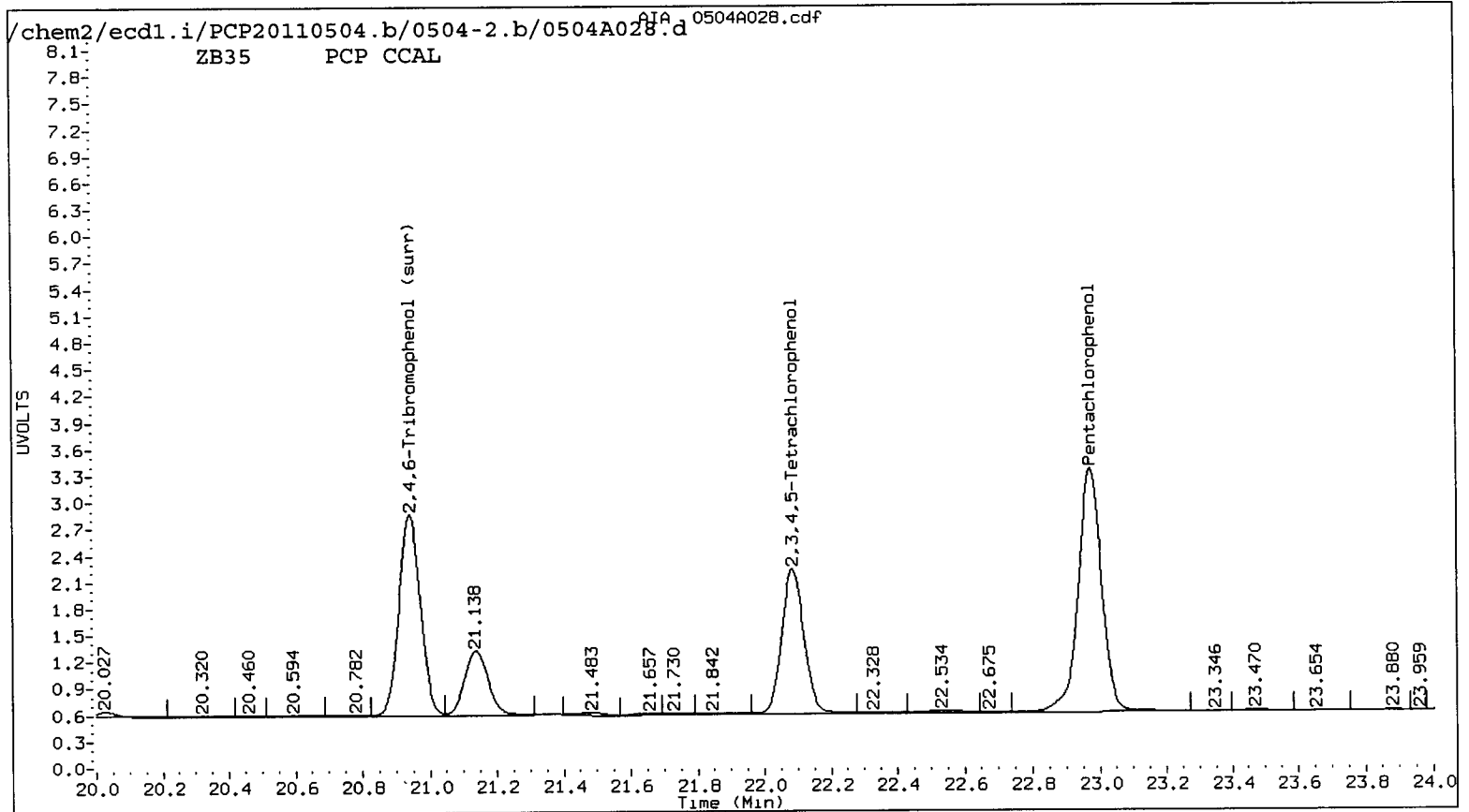
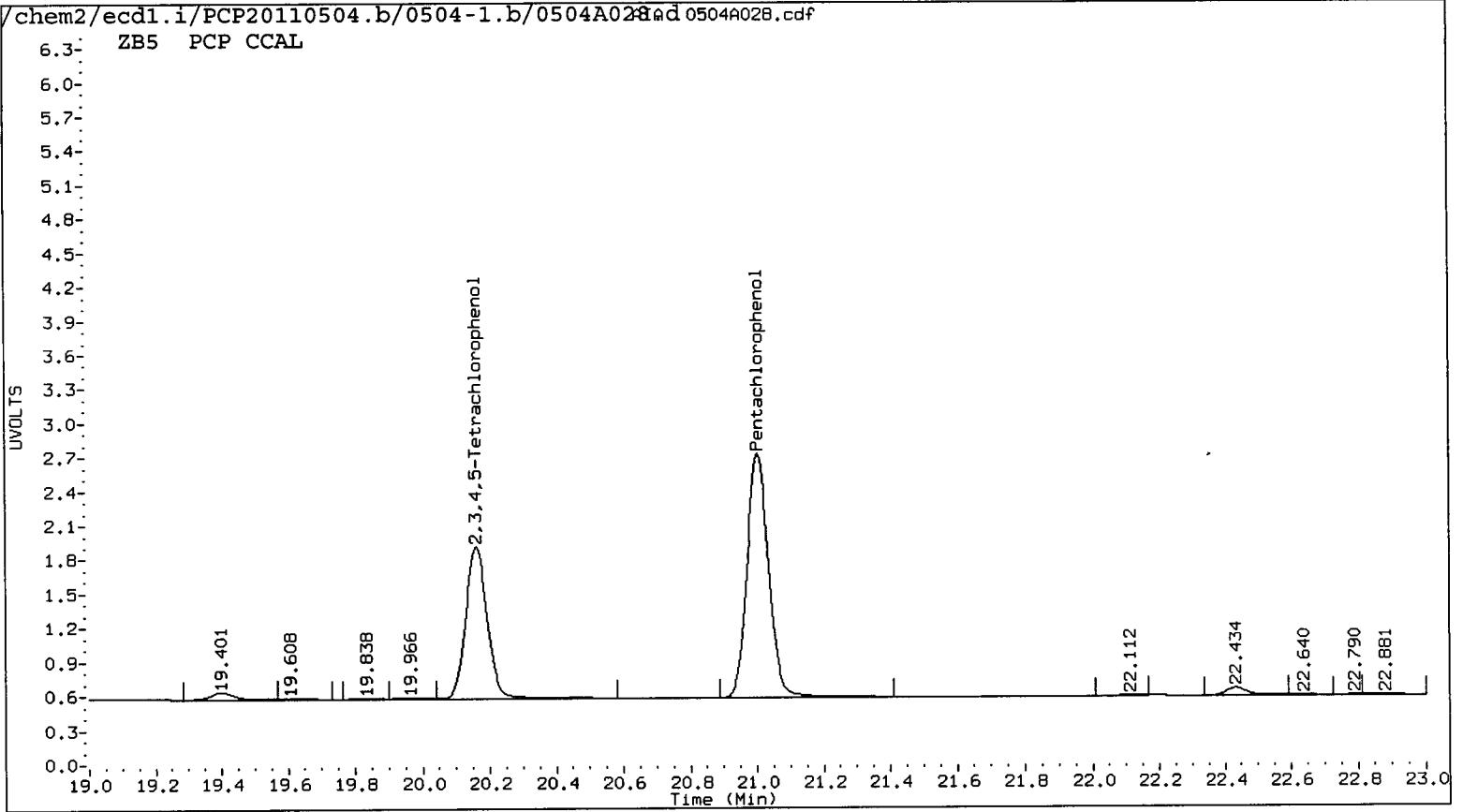
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A028.d Client ID:
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 01:25
 Compound Sublist: all Report Date: 05/06/2011 11:12
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col		ZB35 Col		ZB-5	ZB35	RPD	Compound
RT	Shift Response	RT	Shift Response	on col	on col		
21.003	0.006 485587	22.973	0.006 672187	24.0997	23.8695	1.0	Pentachlorophenol
13.106	0.005 286990	14.316	0.005 340422	23.5764	23.4875	0.4	2,4,6-Trichlorophenol
14.102	0.005 268867	15.563	0.006 329501	23.4765	22.9244	2.4	2,3,6-Trichlorophenol
15.850	0.005 163909	17.479	0.005 187600	24.6759	23.1729	6.3	2,4,5-Trichlorophenol
17.357	0.005 195945	19.028	0.005 228959	23.4515	25.0118	6.4	2,3,4-Trichlorophenol
17.158	0.005 407996	18.819	0.005 517117	24.1322	23.5718	2.3	2,3,5,6-Tetrachlorophenol
20.160	0.006 301574	22.085	0.005 385413	23.2306	25.2415	8.3	2,3,4,5-Tetrachlorophenol
12.562	0.007 170032	13.825	0.005 172706	260.8748	245.3658	6.1	2,4-Dichlorophenol
18.601	0.005 385092	20.942	0.006 506074	24.5	24.1	1.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	96.4	95.5
2,4,6-Trichlorophenol	94.3	94.0
2,3,6-Trichlorophenol	93.9	91.7
2,4,5-Trichlorophenol	98.7	92.7
2,3,4-Trichlorophenol	93.8	100.0
2,3,5,6-Tetrachlorophenol	96.5	94.3
2,3,4,5-Tetrachlorophenol	92.9	101.0
2,4-Dichlorophenol	104.3	98.1
2,4,6-TBP (surr)	97.8	96.3





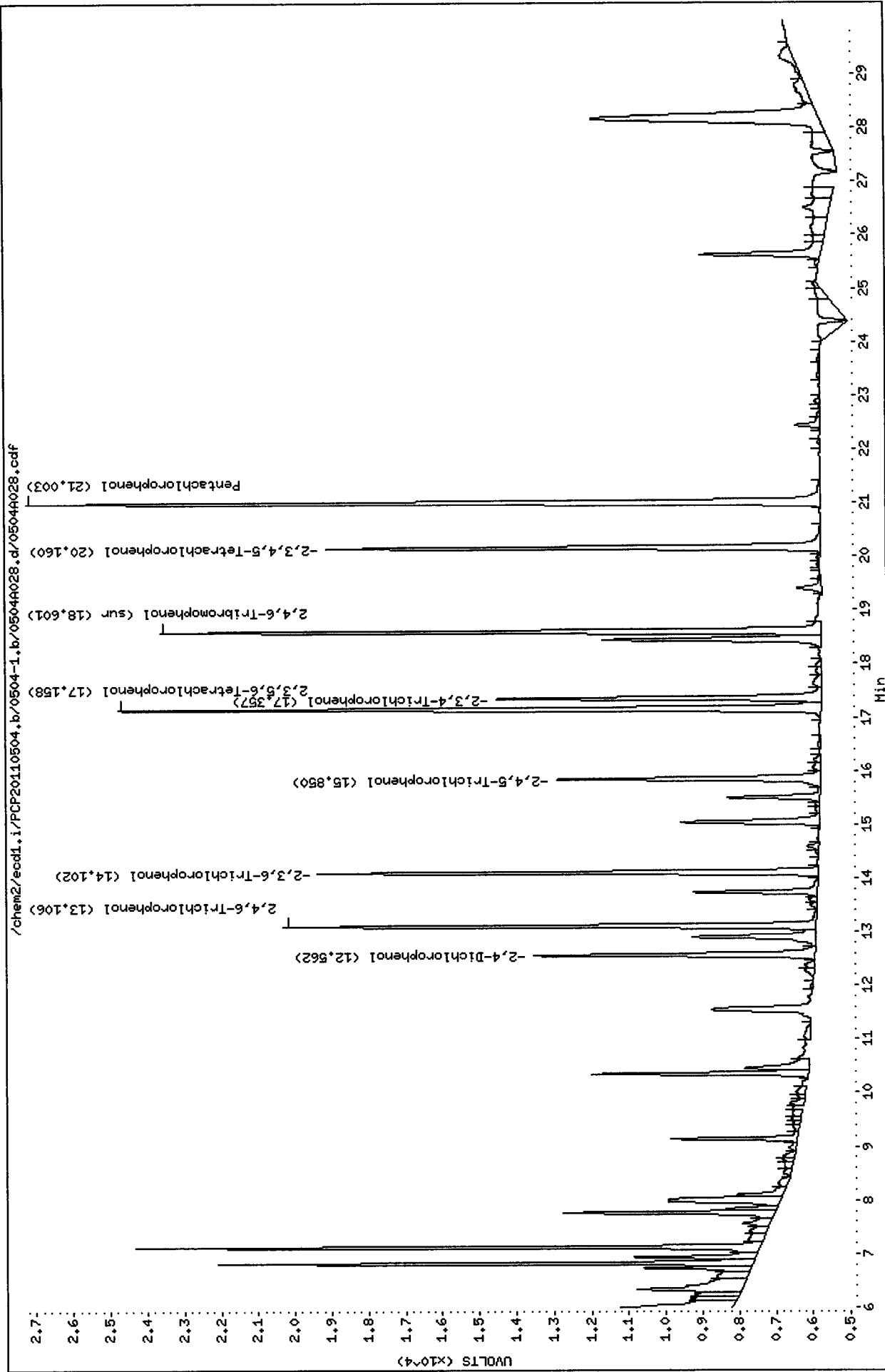
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Date : 05-MAY-2011 01:25
Client ID:
Sample Info: PCP CCAL
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecd1.i

Operator: ar

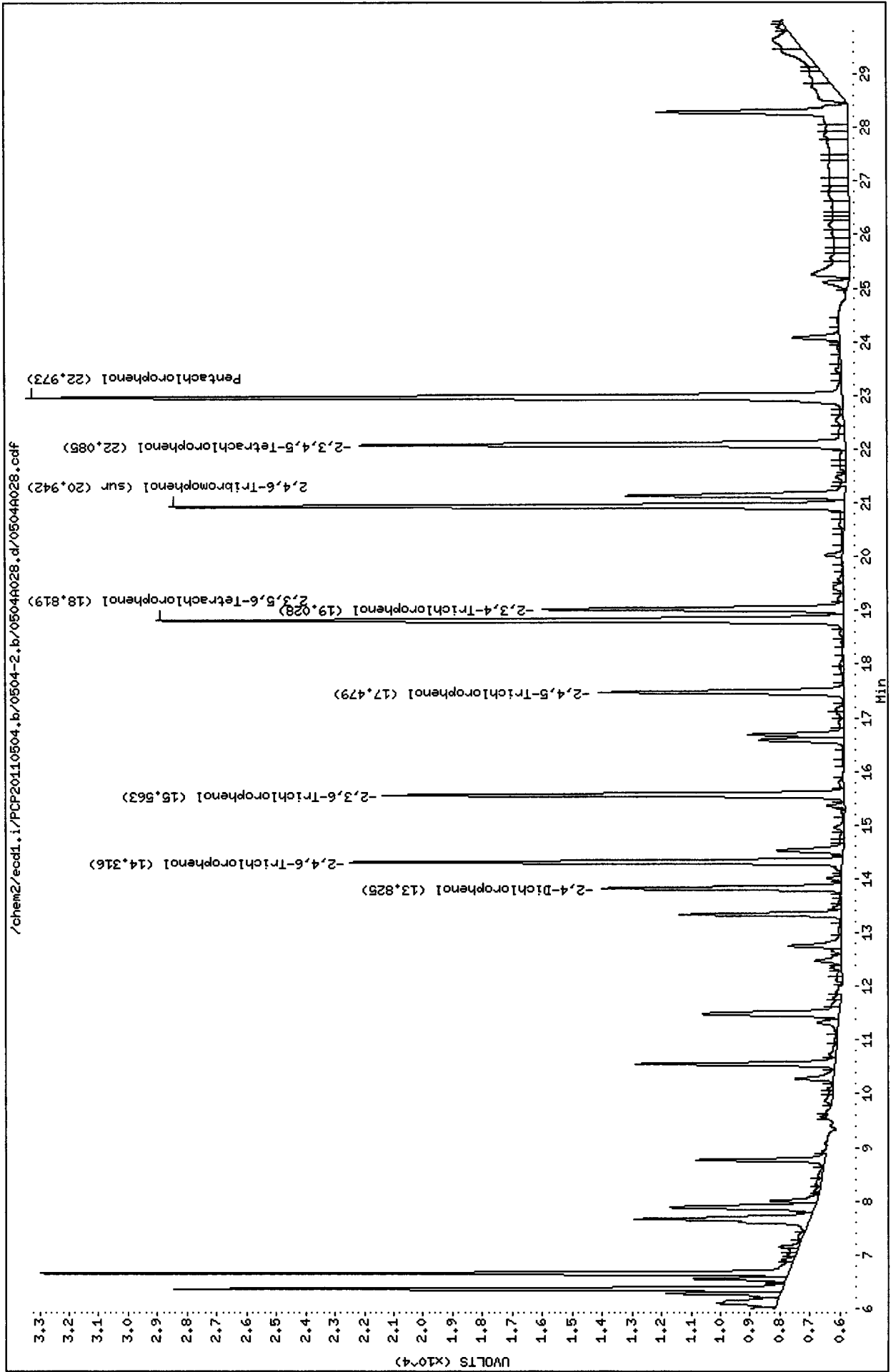
Column diameter: 0.53



Data File: /chem2/ecd1.i/PCP20110504.b/0504-2.b/0504A028.d
Date : 05-MAY-2011 01:25
Client ID:
Sample Info: PCP CCAL
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: ecd1.i

Operator: ar
Column diameter: 0.53





GC Analyst Notes / Corrective Action Log

ARI Project ID: SS71 Client ID: Flyd Snider

ARI SOP: 403S(PCB) 405S(Herb) 407S(TPH-D) 409S(HCID) **412S(PCP)** 423S(Pest)
427S(Dir Inj) 428S(EPH) 432S(EDB) Other

Parameter(s): NT

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 **ECD-1** ECD-3 ECD-4 ECD-5 ECD-6 ECD-7

Dates: Curve: 5/4/2011 Analysis Start: 5/4/2011

Endrin/DDT Breakdown <15%?	YES / NO / NA	Method Blank In Control?	YES / NO
ICal Meets RF & %RSD Criteria?	YES / NO	LCS/LCSD Recovery In Control?	YES / NO
CCal Meets RF & %RSD Criteria?	YES / NO	Surrogate Recovery In Control?	YES / NO
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	YES / NO
Internal Standard Meets Criteria?	YES / NO / NA	Special Analysis Criteria Met?	YES / NO / NA

VDP Requested

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

- CCals meet for requested empals.

Additional Details on Reverse: Yes / **No**

Analyst: [Signature] Date: 5/6/2011

Reviewer: _____ Date: _____

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

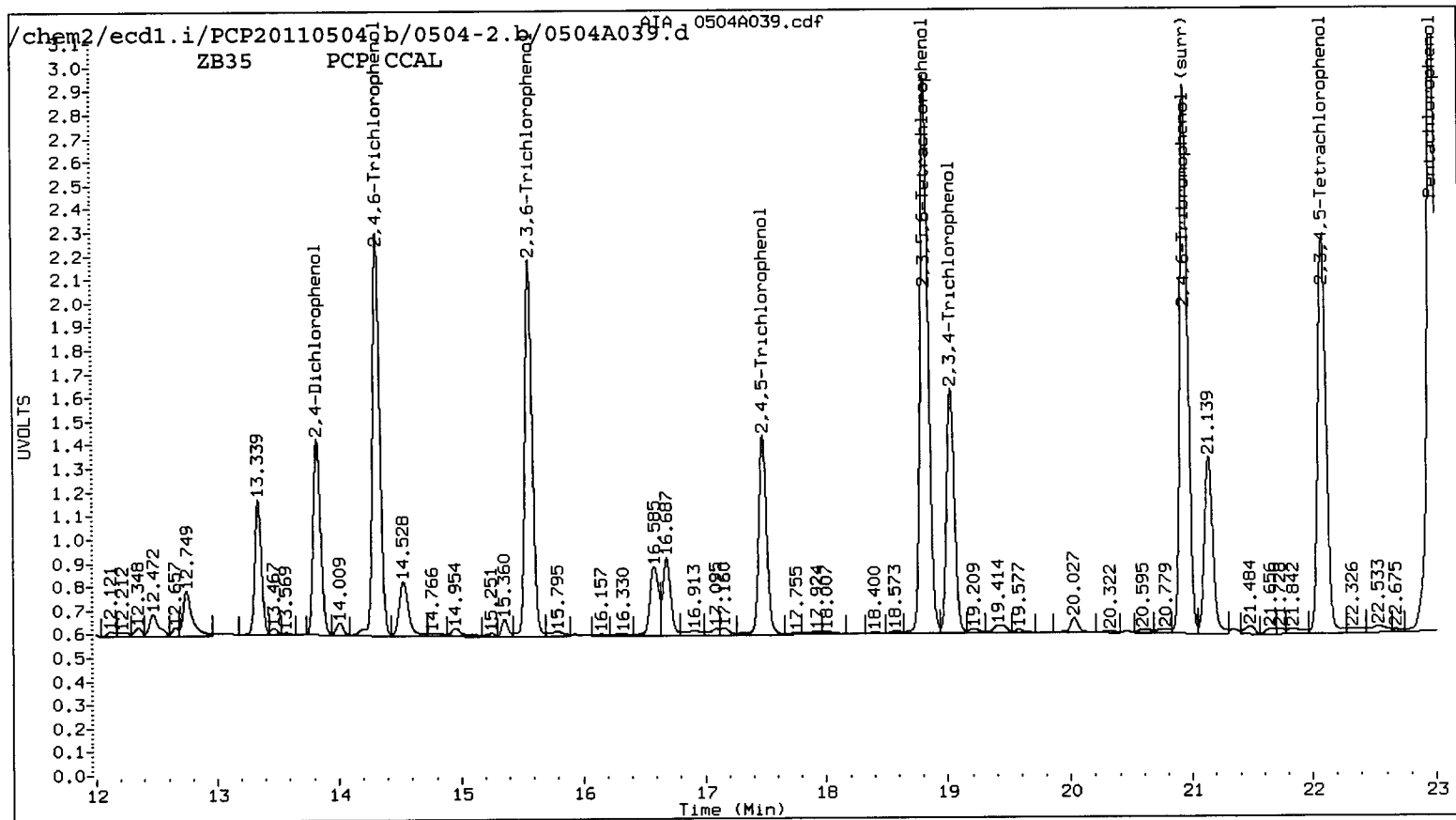
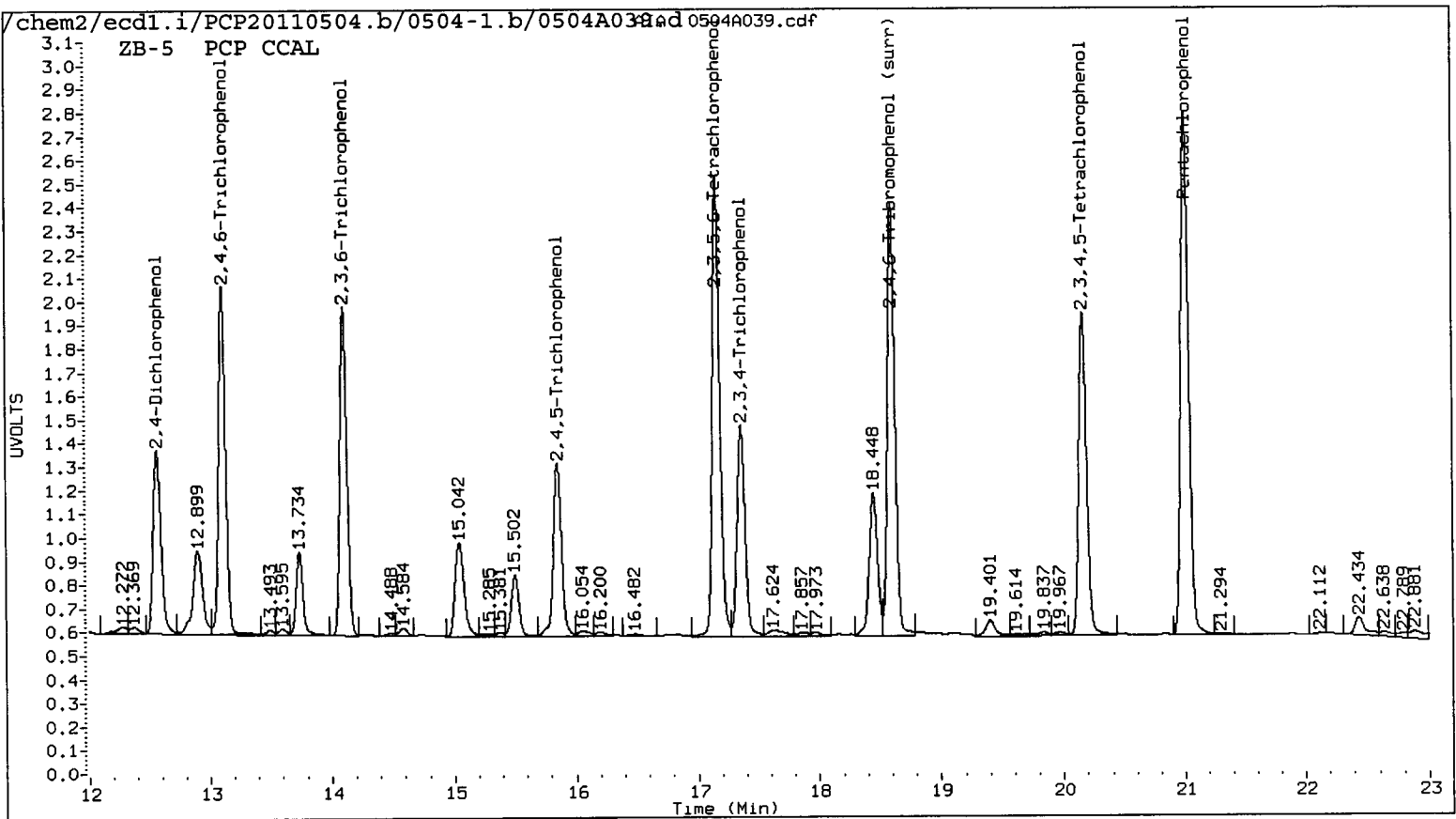
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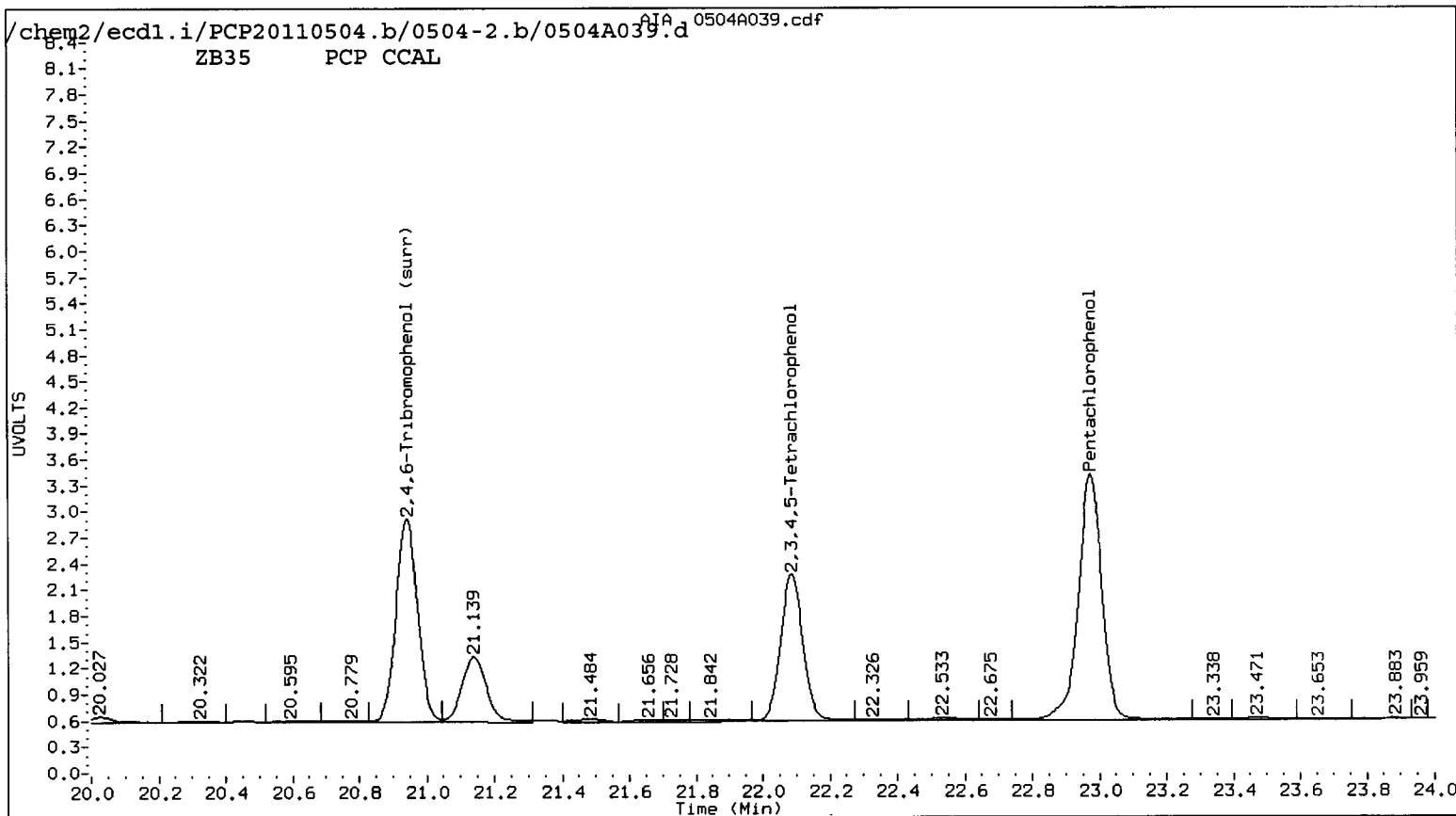
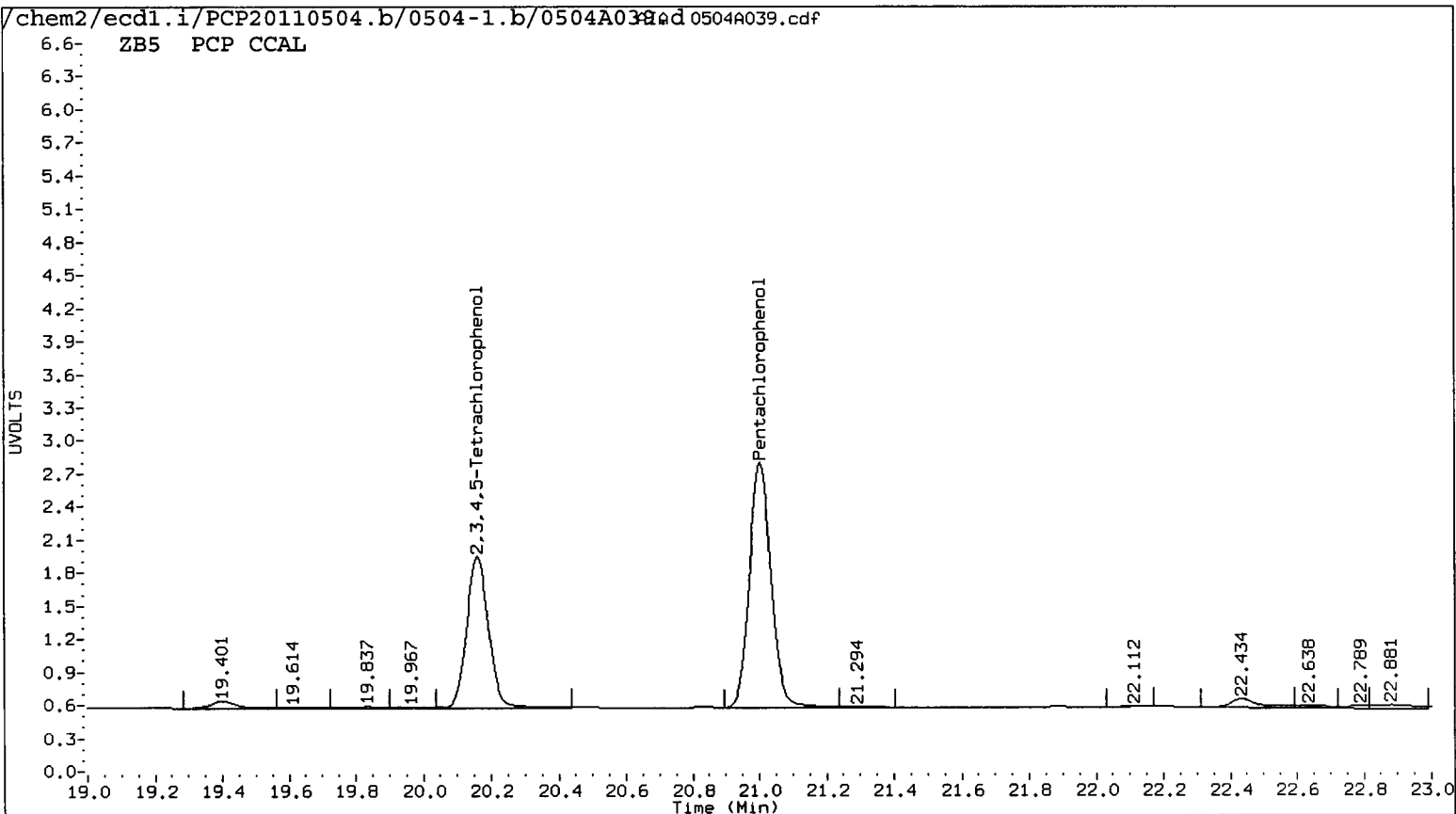
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A039.d Client ID:
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 08:04
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.003	0.006	499670	22.973	0.006	694730	24.7986	24.6701	0.5	Pentachlorophenol
13.105	0.004	295861	14.316	0.005	348599	24.3051	24.0517	1.0	2,4,6-Trichlorophenol
14.101	0.004	276271	15.563	0.006	339748	24.1229	23.6373	2.0	2,3,6-Trichlorophenol
15.850	0.005	167498	17.479	0.005	194862	25.2935	24.0699	5.0	2,4,5-Trichlorophenol
17.356	0.005	201849	19.028	0.005	235136	24.1582	25.7757	6.5	2,3,4-Trichlorophenol
17.157	0.005	420672	18.819	0.005	531423	24.8820	24.2239	2.7	2,3,5,6-Tetrachlorophenol
20.160	0.006	312394	22.086	0.006	395653	24.0641	25.9871	7.7	2,3,4,5-Tetrachlorophenol
12.561	0.006	173825	13.825	0.005	176531	267.8627	251.9572	6.1	2,4-Dichlorophenol
18.601	0.005	397645	20.942	0.006	518901	25.3	24.7	2.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

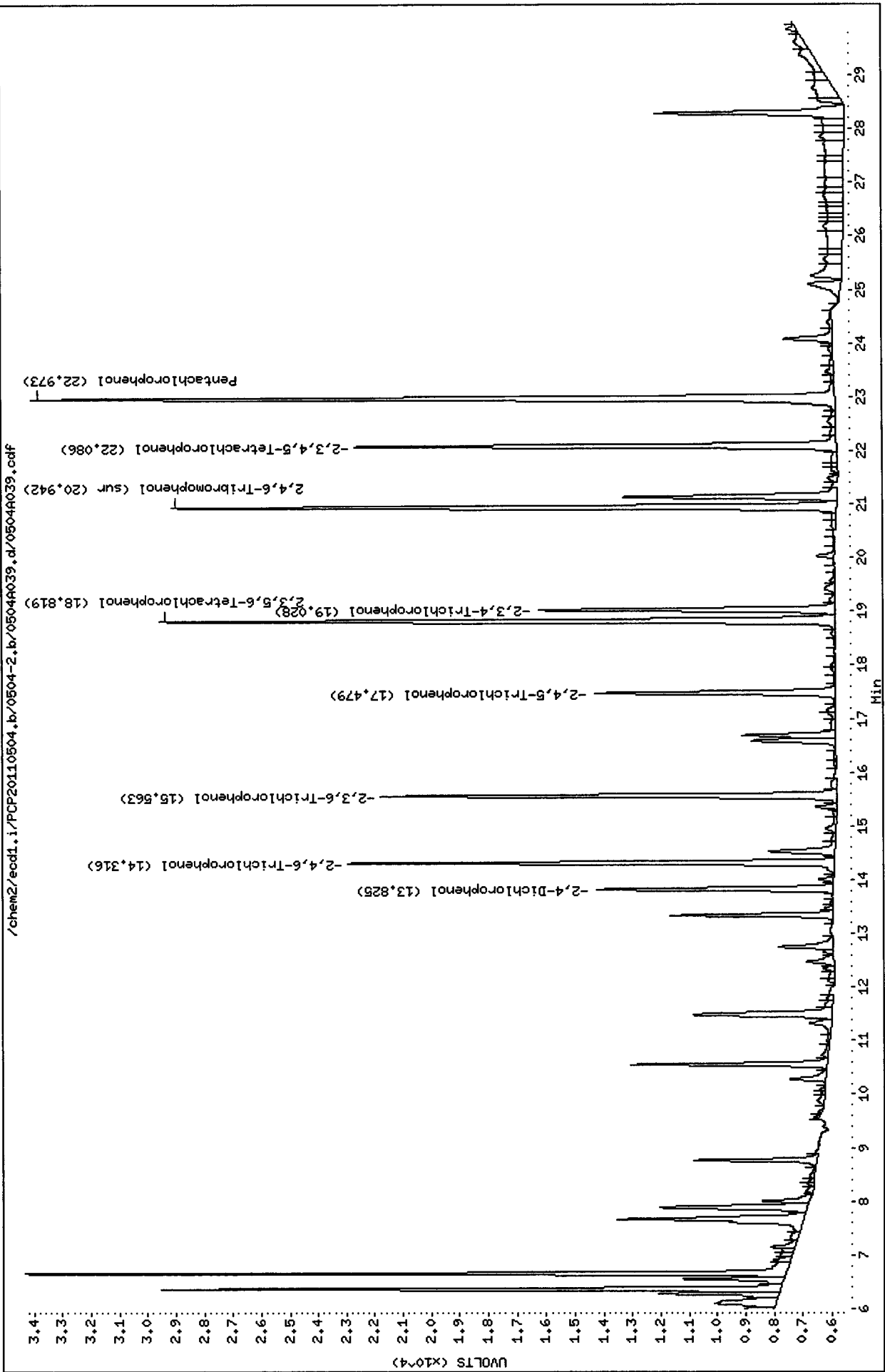
COMPOUND	Col1	Col2
Pentachlorophenol	99.2	98.7
2,4,6-Trichlorophenol	97.2	96.2
2,3,6-Trichlorophenol	96.5	94.5
2,4,5-Trichlorophenol	101.2	96.3
2,3,4-Trichlorophenol	96.6	103.1
2,3,5,6-Tetrachlorophenol	99.5	96.9
2,3,4,5-Tetrachlorophenol	96.3	103.9
2,4-Dichlorophenol	107.1	100.8
2,4,6-TBP (surr)	101.0	98.7





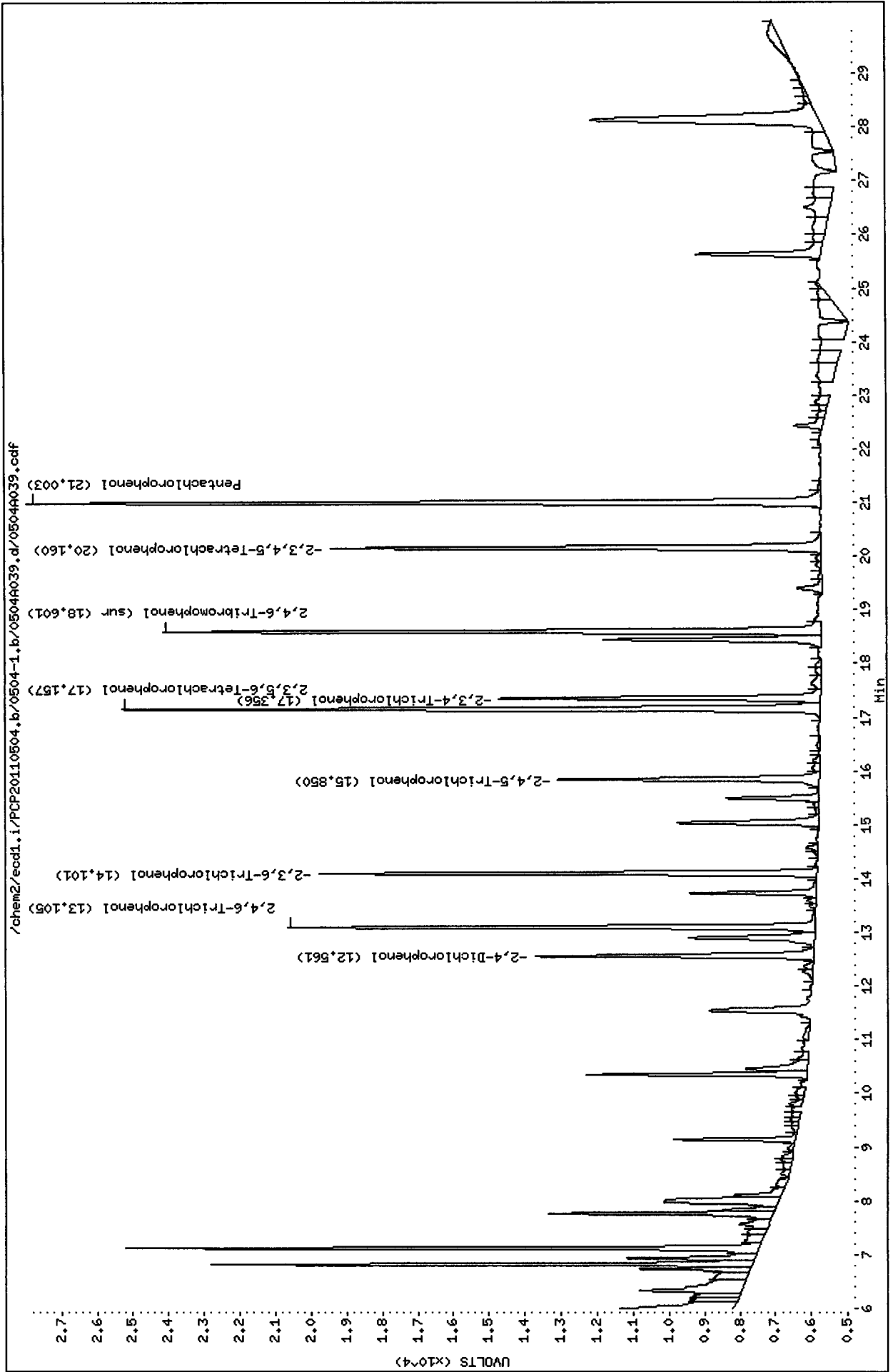
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Date : 05-MAY-2011 08:04
Client ID:
Sample Info: PCP CCAL
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: ecdl1.i
Operator: ar
Column diameter: 0.53



Data File: /chem2/eod1.i/PCP20110504.b/0504-1.b/0504A039.d
Date : 05-MAY-2011 08:04
Client ID:
Sample Info: PCP CCRAL
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: eod1.i
Operator: ar
Column diameter: 0.53



Analytical Resources Inc.
 Dual Column 8041 Chlorinated Phenols Quantitation Report

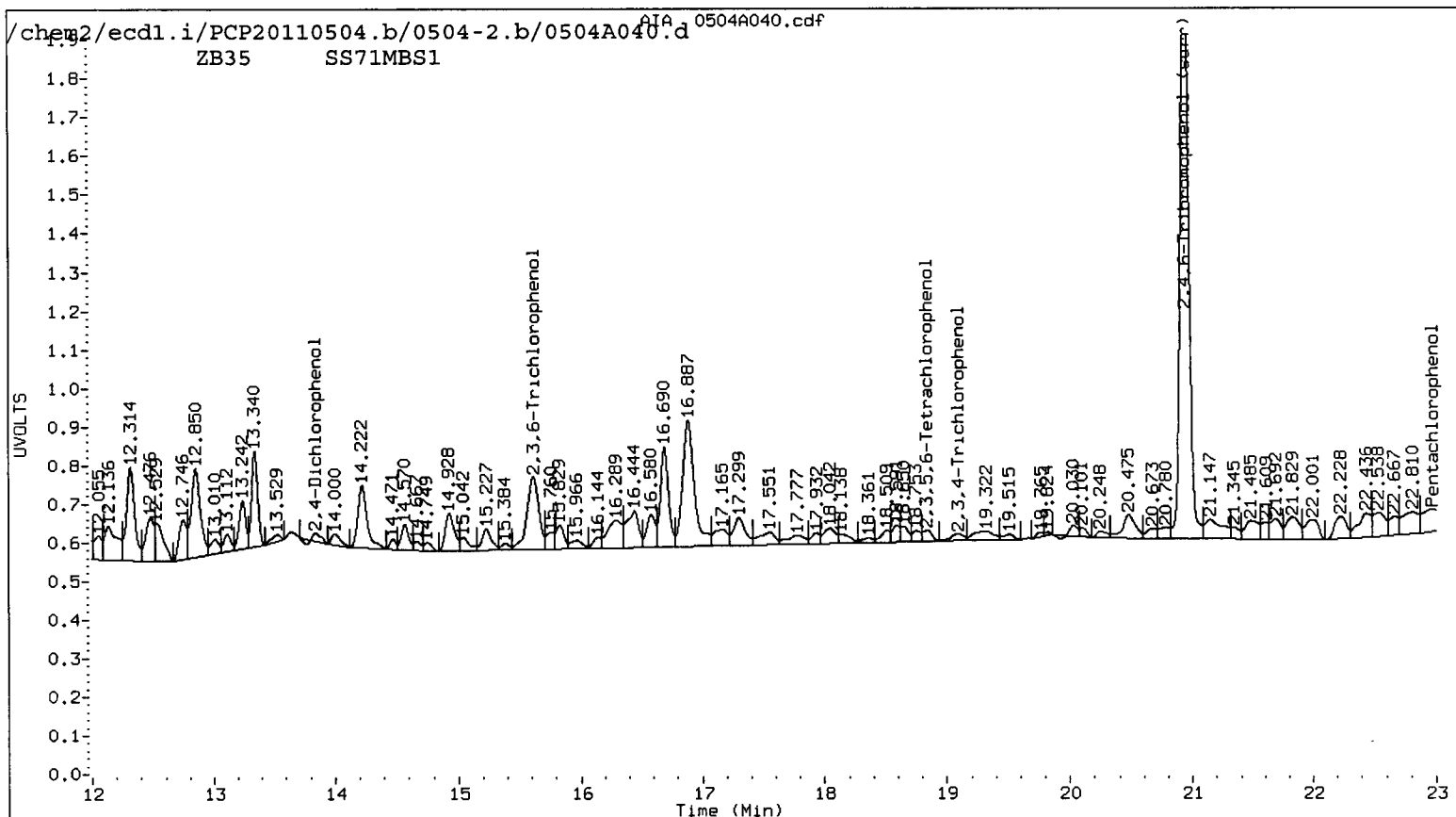
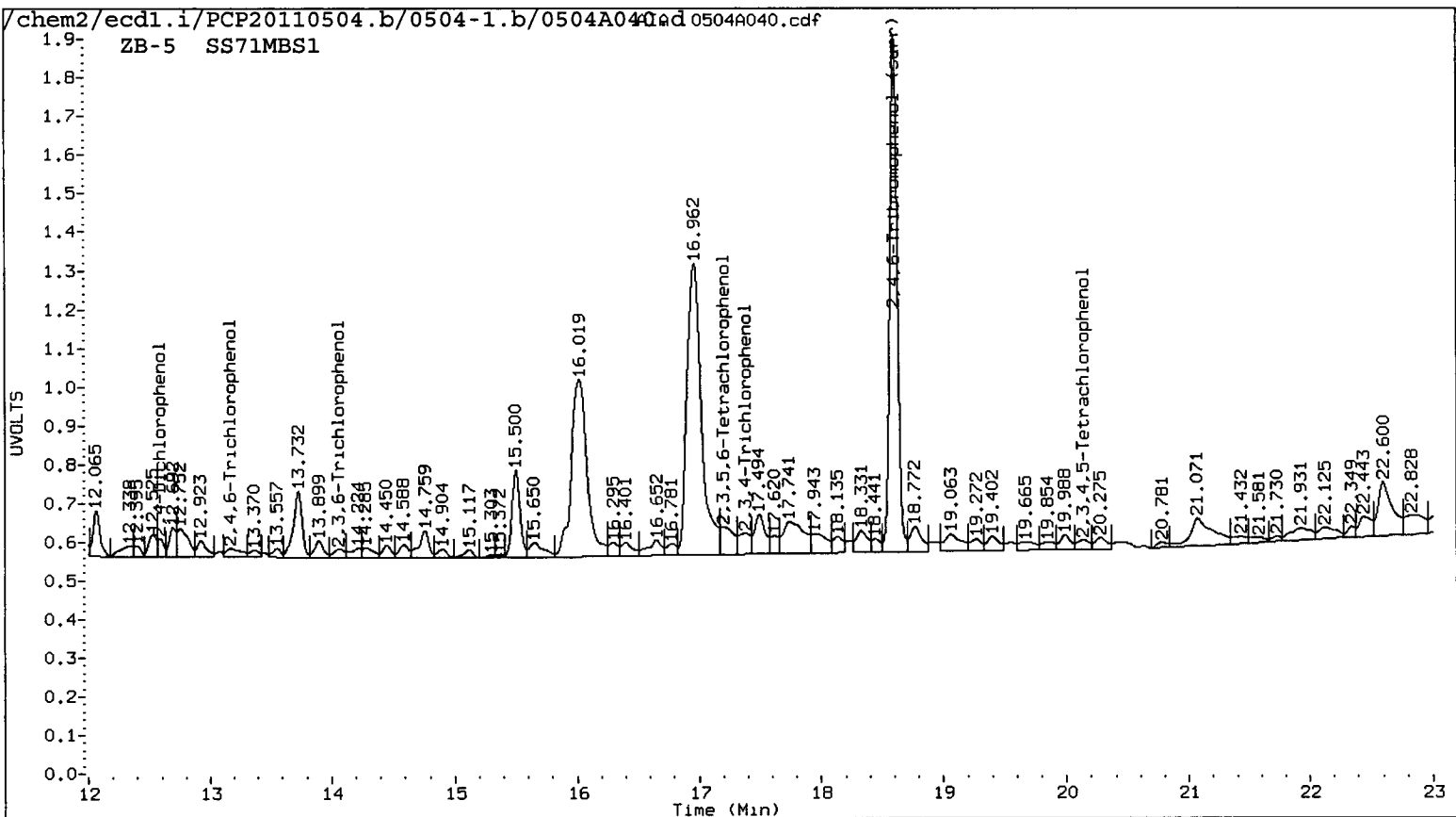
AR 5/6/2011

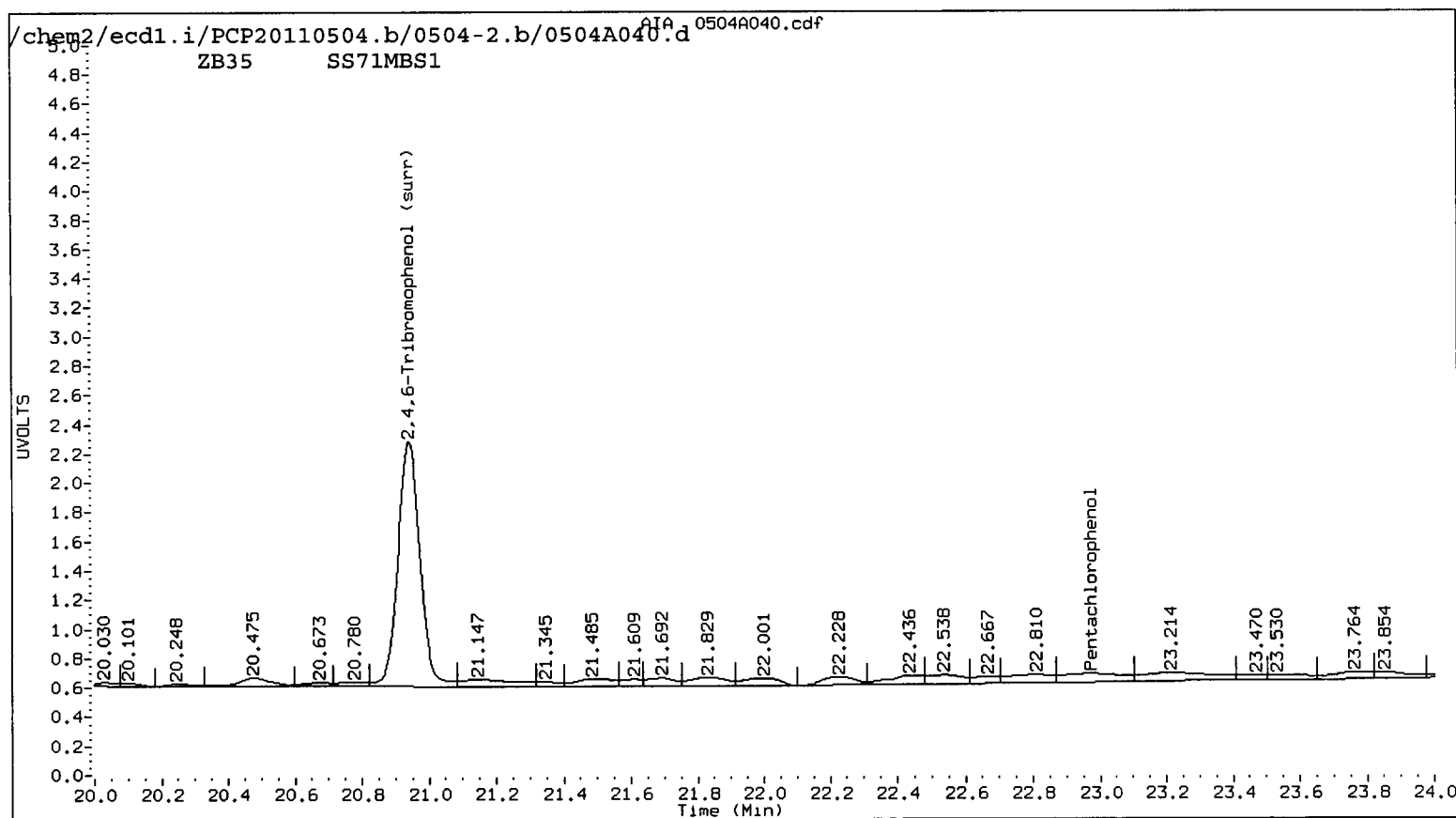
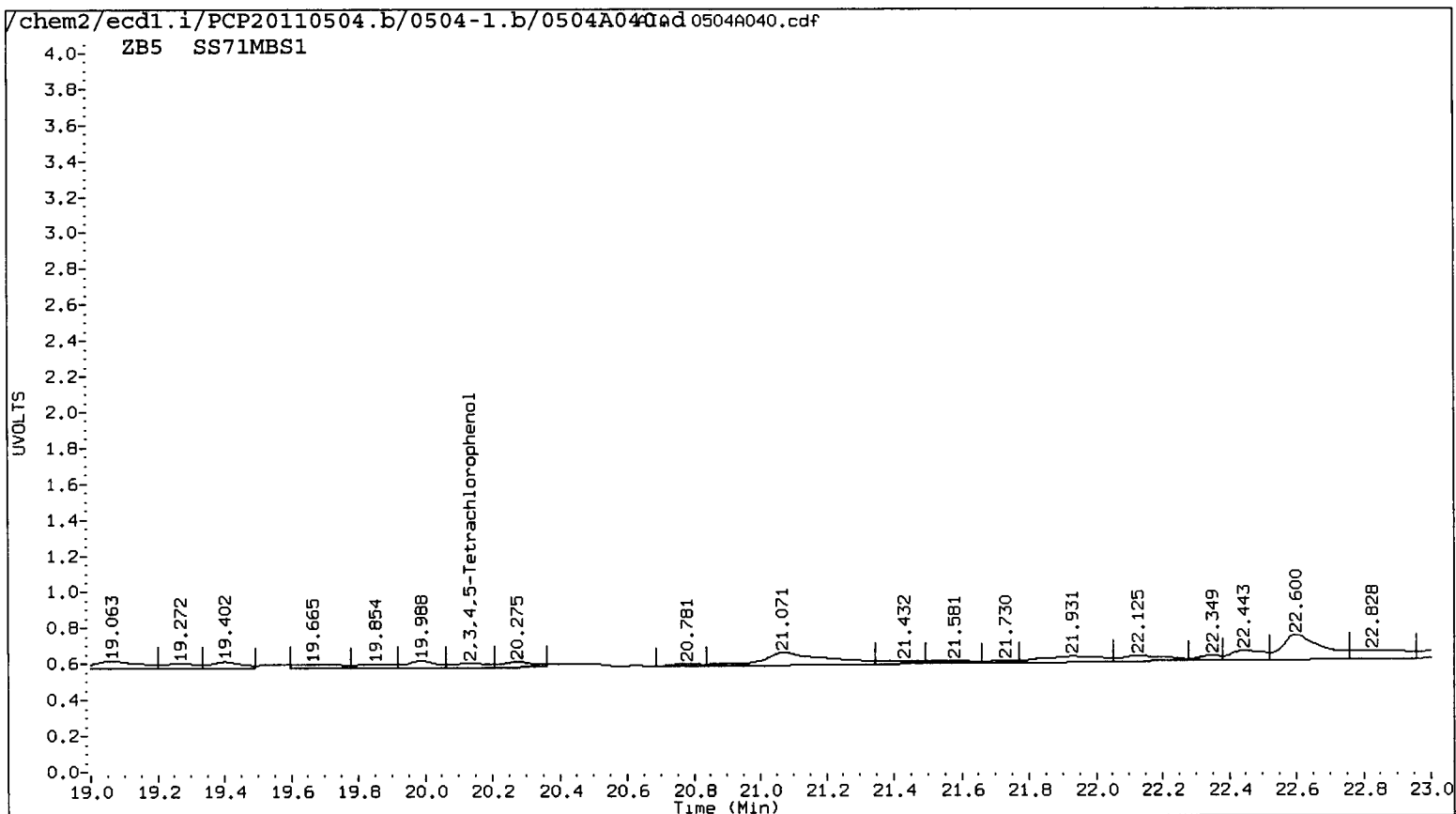
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 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 08:40
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
----			22.973	0.006	37253	0.0000	1.3229	---	Pentachlorophenol
13.171	0.070	9635	----			0.7916	0.0000	---	2,4,6-Trichlorophenol
14.063	-0.034	6350	15.612	0.055	63794	0.5545	4.4384	155.6*	2,3,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,4,5-Trichlorophenol
17.377	0.026	17898	19.092	0.069	6589	2.1422	0.6299	109.1*	2,3,4-Trichlorophenol
17.200	0.047	25688	18.840	0.026	7412	1.5194	0.3379	127.2*	2,3,5,6-Tetrachlorophenol
20.136	-0.019	8546	----			0.6584	0.0000	---	2,3,4,5-Tetrachlorophenol
12.585	0.030	8018	13.842	0.022	3798	10.0015	4.2959	79.8*	2,4-Dichlorophenol
18.600	0.005	290411	20.941	0.005	384266	18.4	18.3	0.9	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	73.8	73.1





Data File: /chem2/ecd1.i/PCP20110504.b/0504-1.b/0504040.d

Date : 05-MAY-2011 08:40

Client ID: SS71MBS1

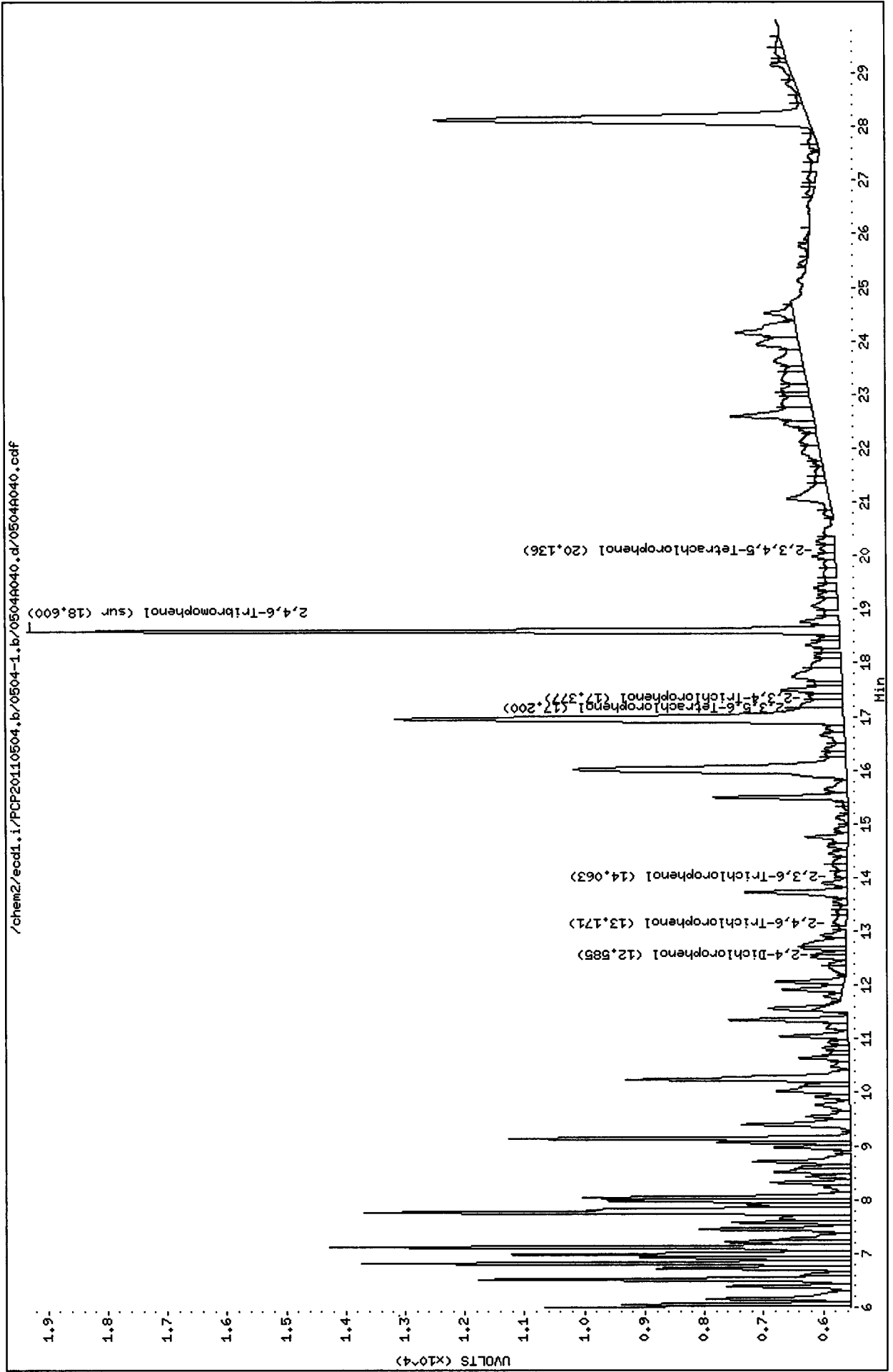
Sample Info: SS71MBS1

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



Data File: /chem2/ecd1.i/PCP20110504.b/0504-2.b/0504040.d

Date : 05-MAY-2011 08:40

Client ID: SS71HBS1

Sample Info: SS71HBS1

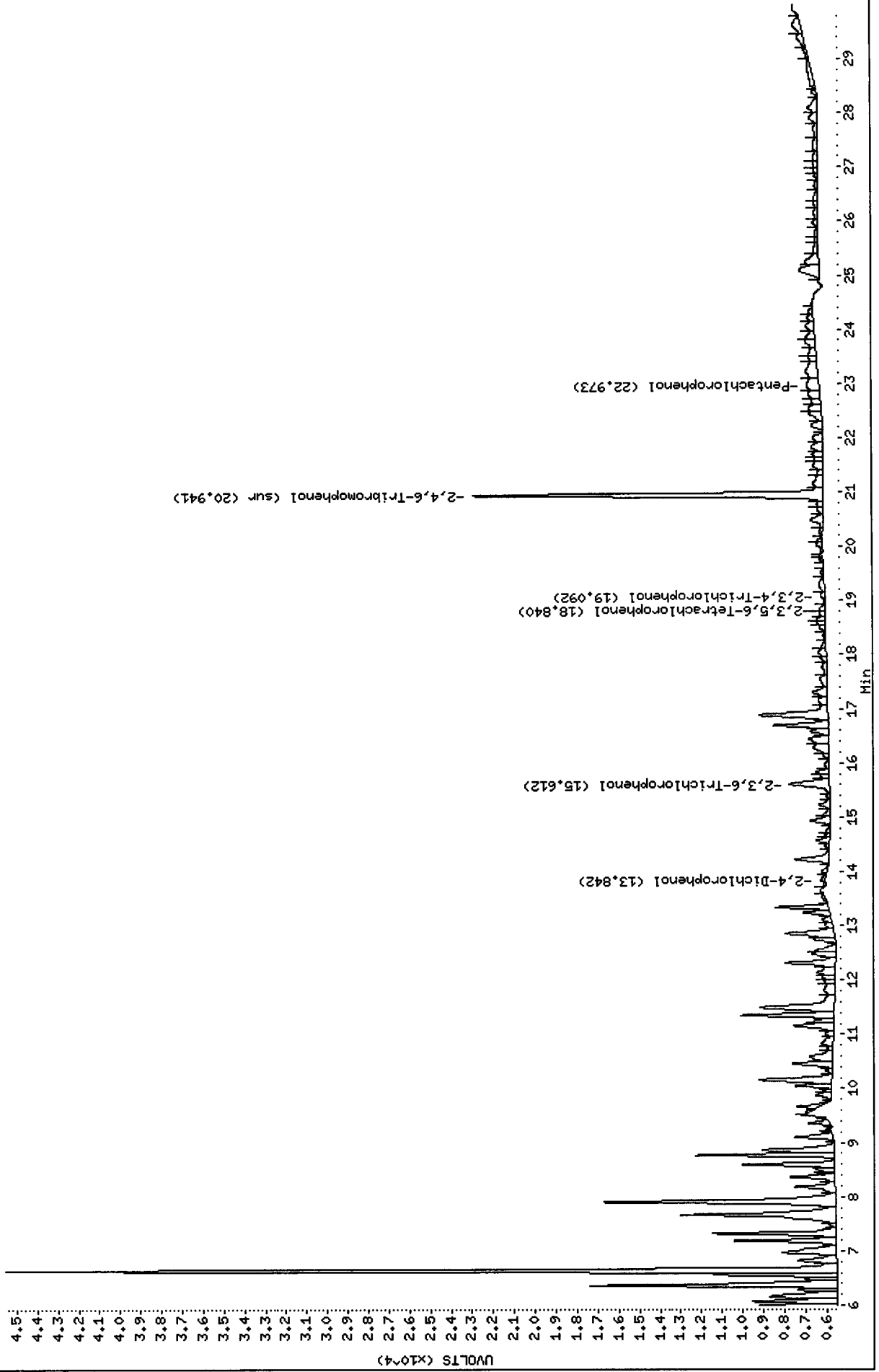
Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

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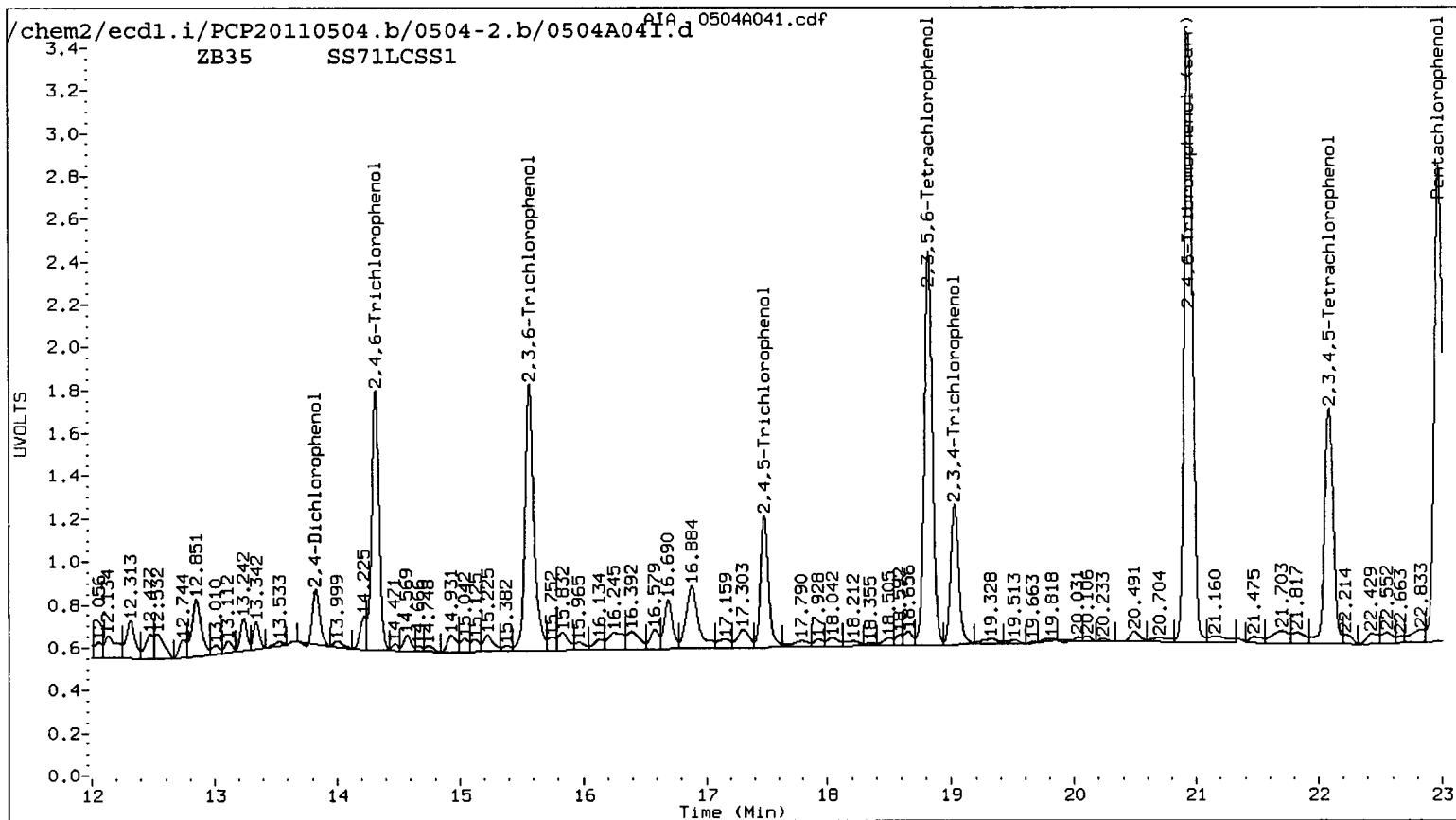
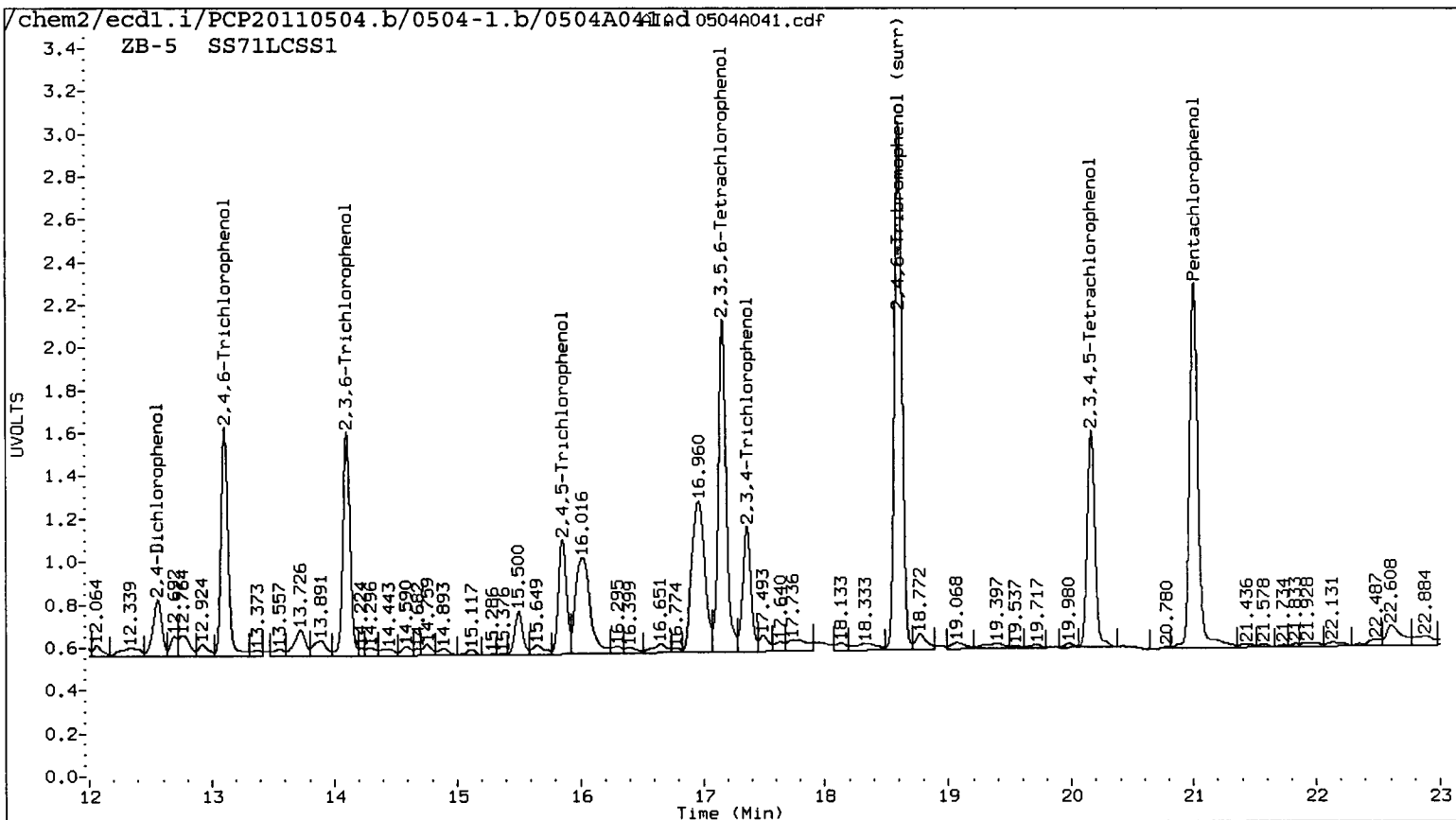
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

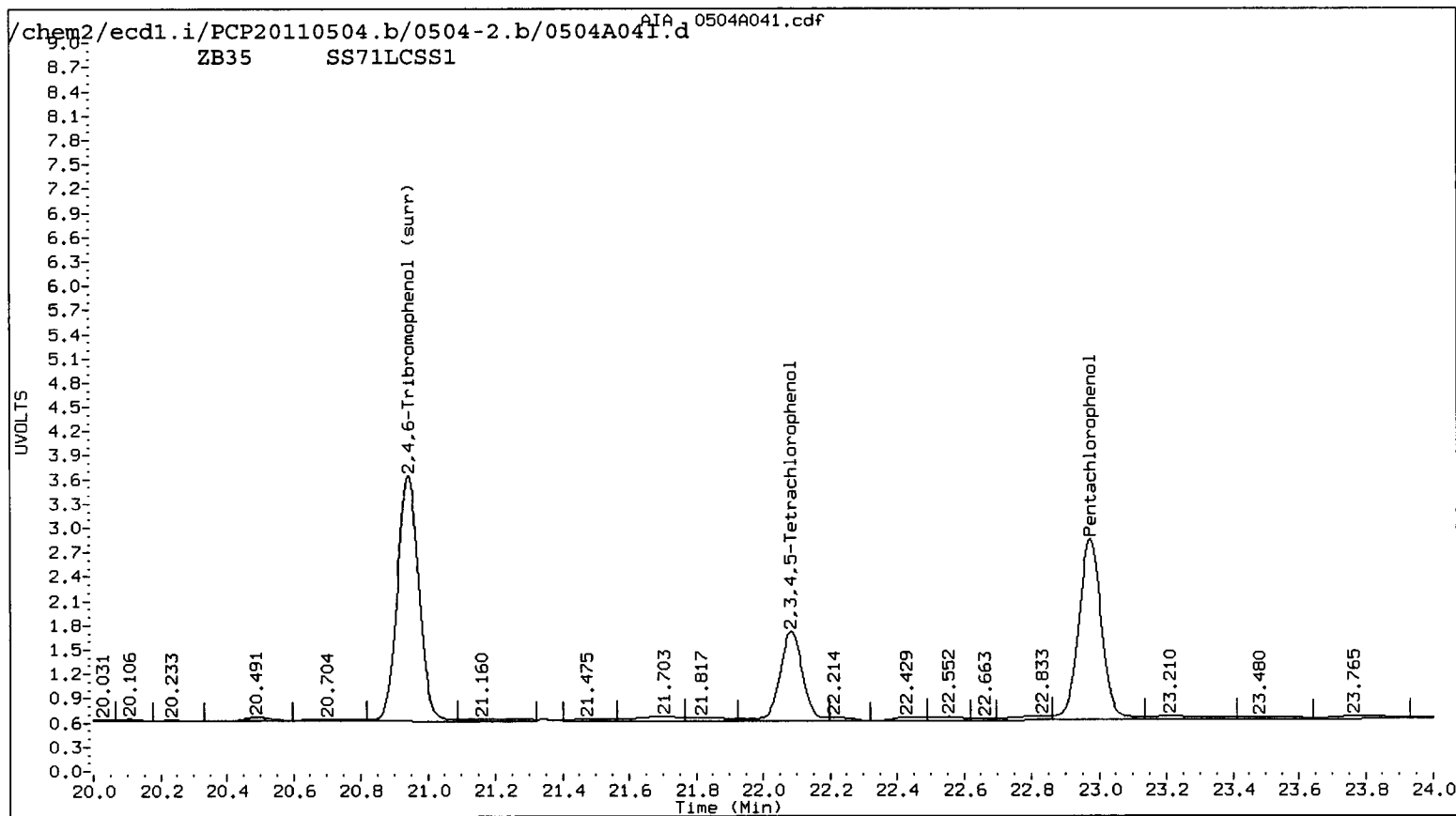
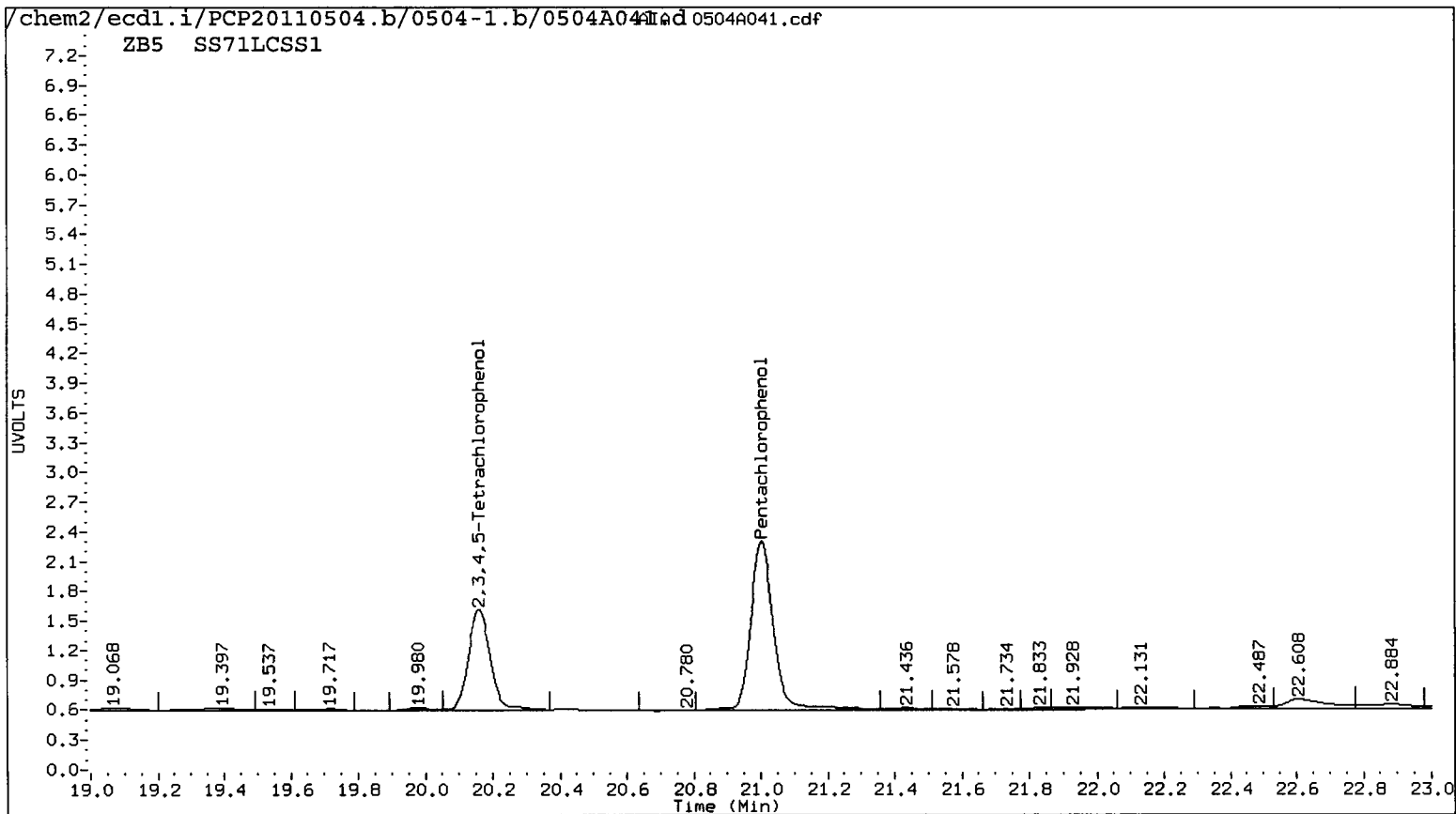
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 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 09:16
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.003	0.006	408991	22.972	0.005	529143	20.2982	18.7900	7.7	Pentachlorophenol
13.106	0.005	222070	14.316	0.005	253727	18.2432	17.5060	4.1	2,4,6-Trichlorophenol
14.101	0.004	218082	15.563	0.006	312363	19.0421	21.7320	13.2	2,3,6-Trichlorophenol
15.852	0.007	120482	17.479	0.005	143507	17.4670	17.7265	1.5	2,4,5-Trichlorophenol
17.357	0.005	137921	19.028	0.005	150496	16.5069	15.7156	4.9	2,3,4-Trichlorophenol
17.158	0.005	353285	18.818	0.004	412608	20.8962	18.8080	10.5	2,3,5,6-Tetrachlorophenol
20.160	0.005	227877	22.084	0.004	263013	17.5536	16.6295	5.4	2,3,4,5-Tetrachlorophenol
12.557	0.002	65936	13.827	0.007	52373	89.0031	63.5981	33.3	2,4-Dichlorophenol
18.600	0.005	519847	20.942	0.006	677045	33.0	32.2	2.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	81.2	75.2
2,4,6-Trichlorophenol	73.0	70.0
2,3,6-Trichlorophenol	76.2	86.9
2,4,5-Trichlorophenol	69.9	70.9
2,3,4-Trichlorophenol	66.0	62.9
2,3,5,6-Tetrachlorophenol	83.6	75.2
2,3,4,5-Tetrachlorophenol	70.2	66.5
2,4-Dichlorophenol	35.6	25.4
2,4,6-TBP (surr)	66.0	64.4





Data File: /chem2/ecdl1.i/PCP20110504.b/0504-2.b/0504A041.d

Date : 05-MAY-2011 09:16

Client ID: SS71LCSS1

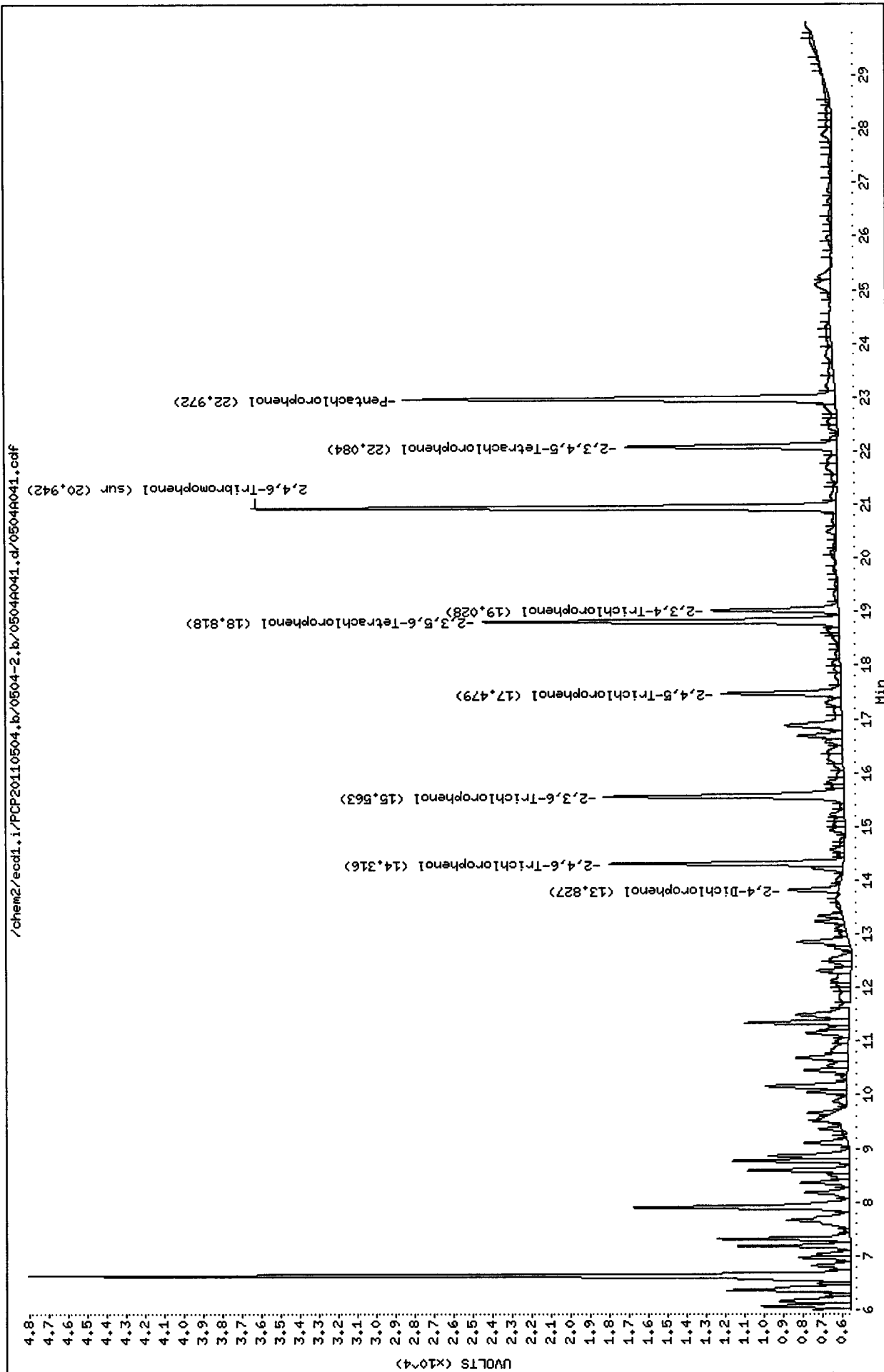
Sample Info: SS71LCSS1

Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2



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Date : 05-MAY-2011 09:16

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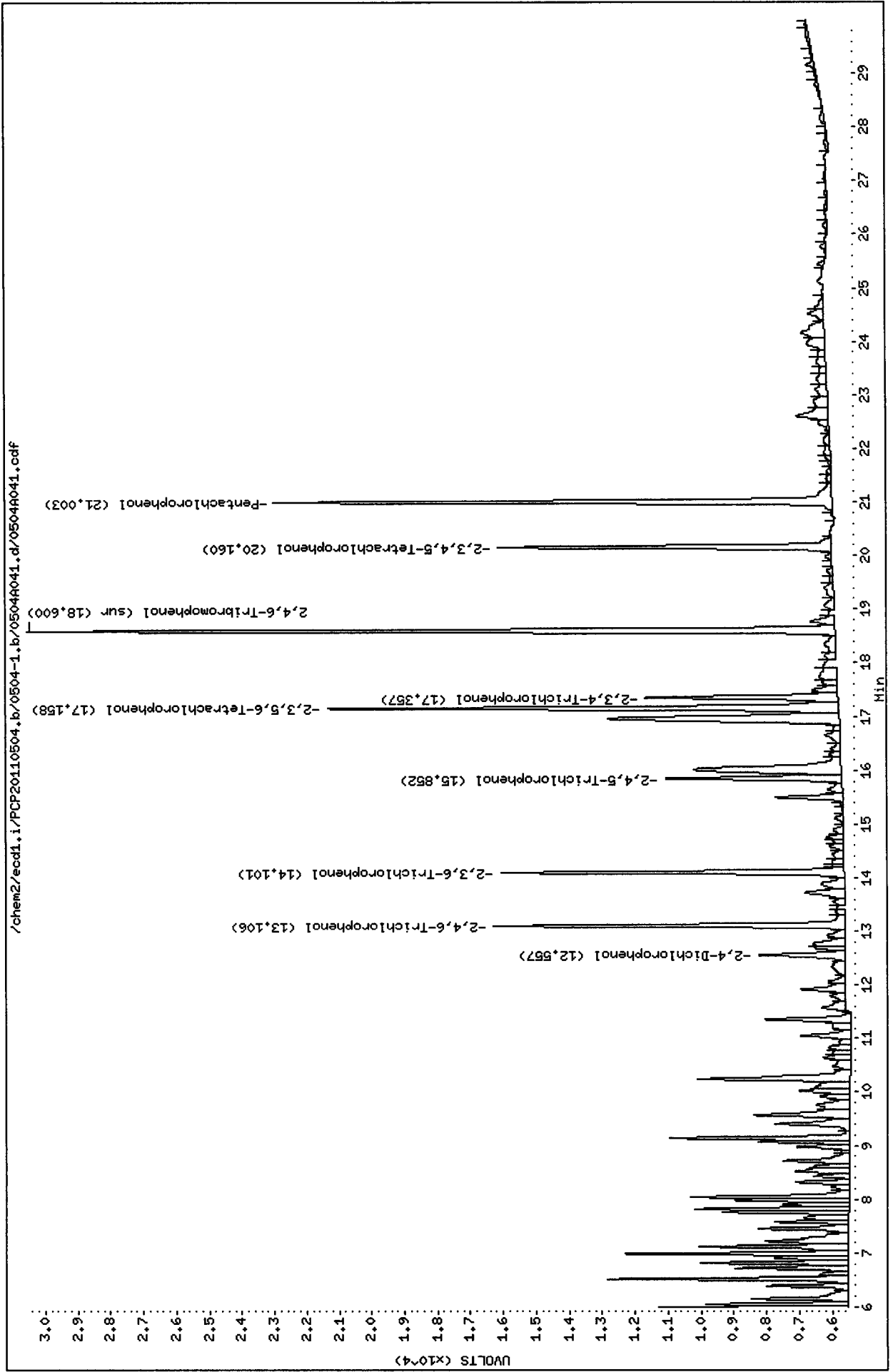
Sample Info: SS71LCSS1

Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



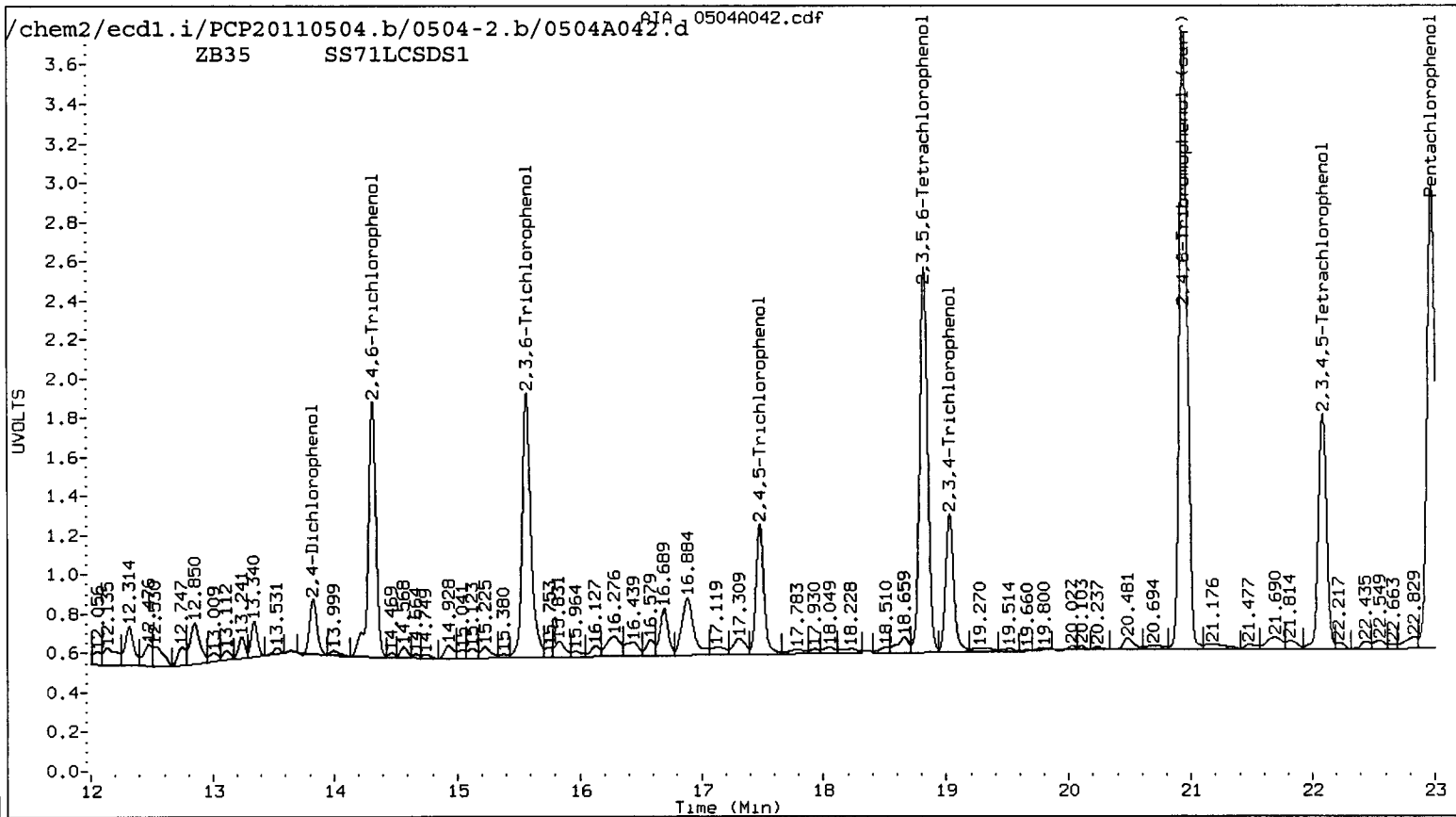
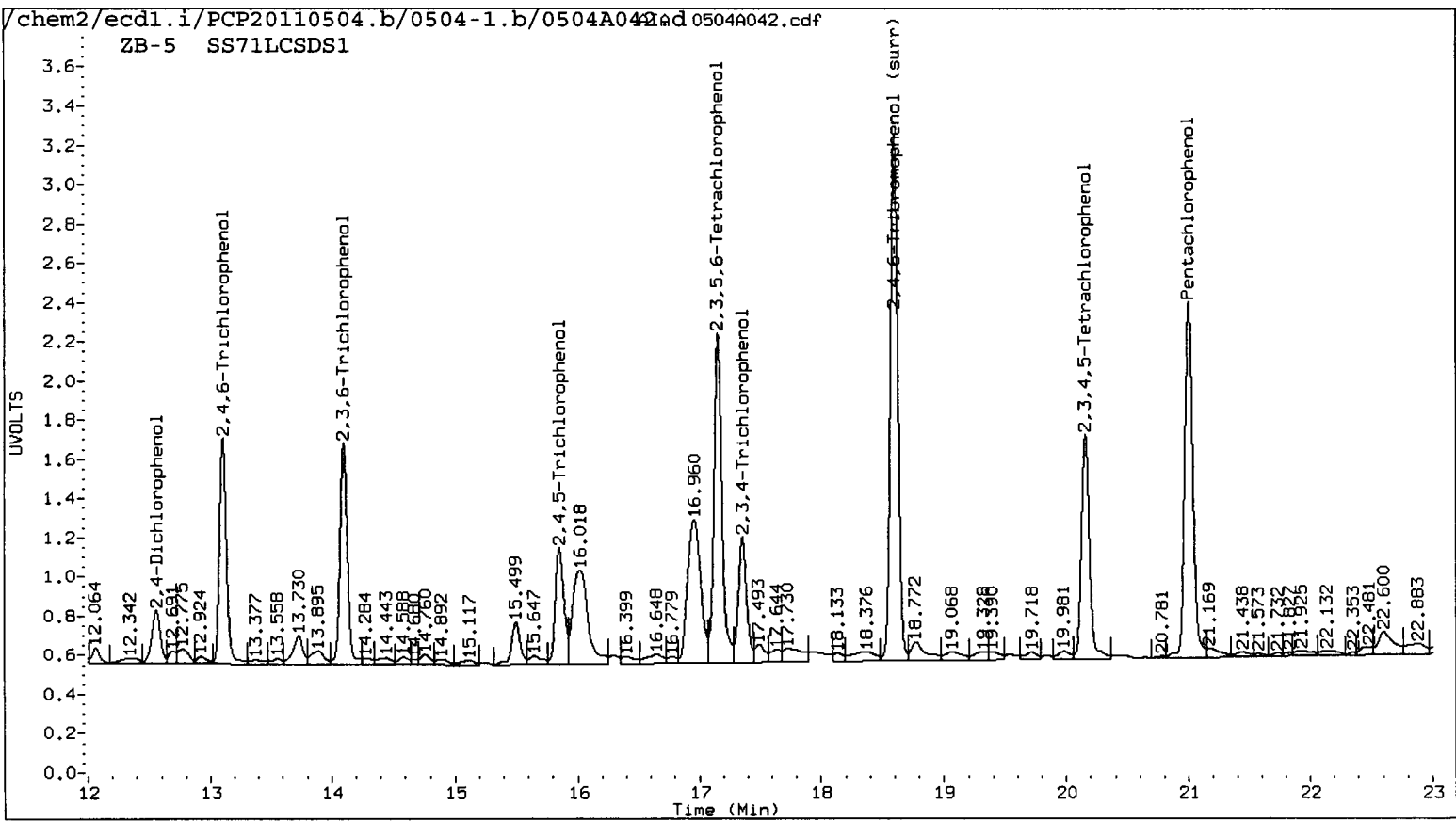
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

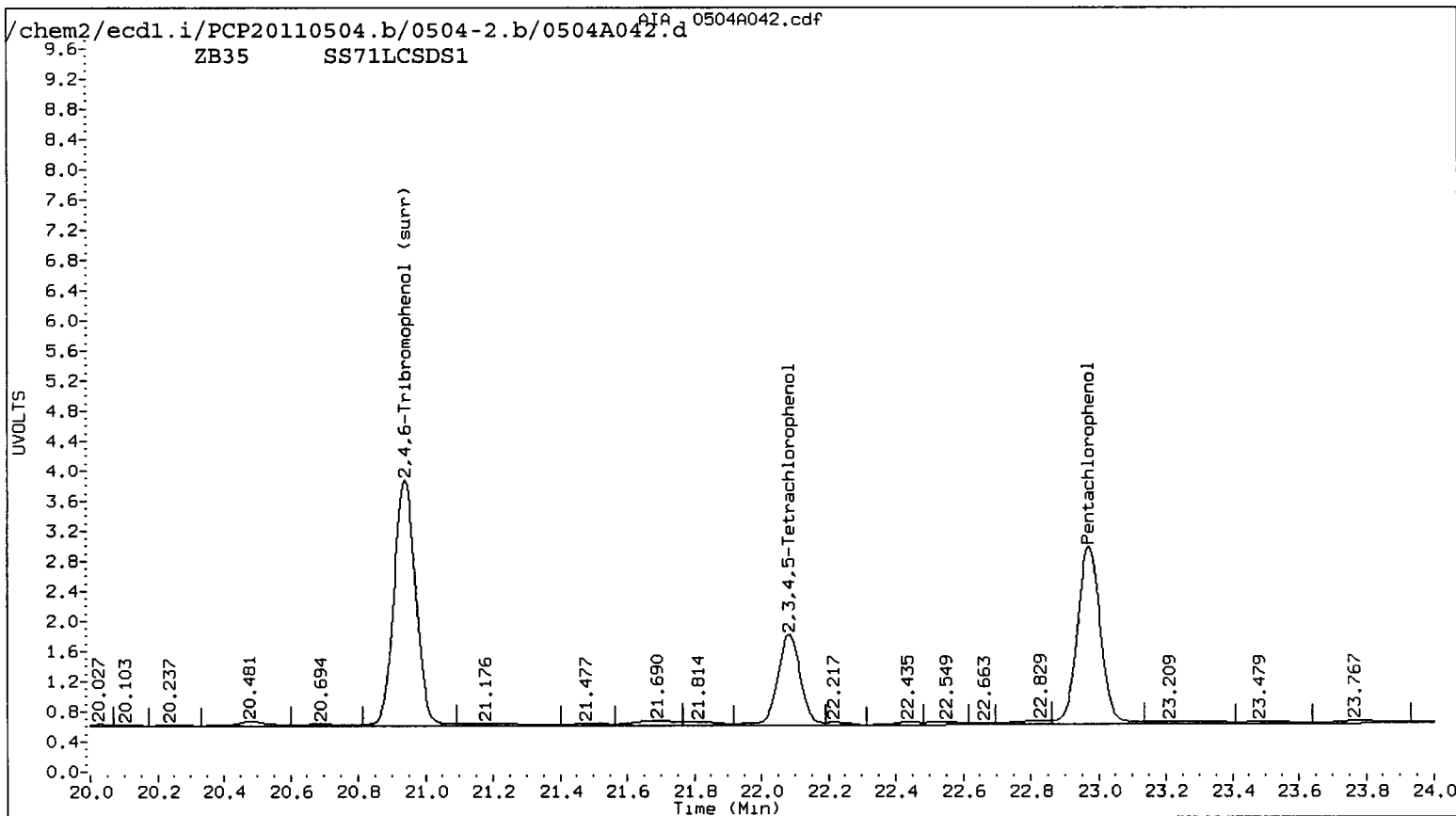
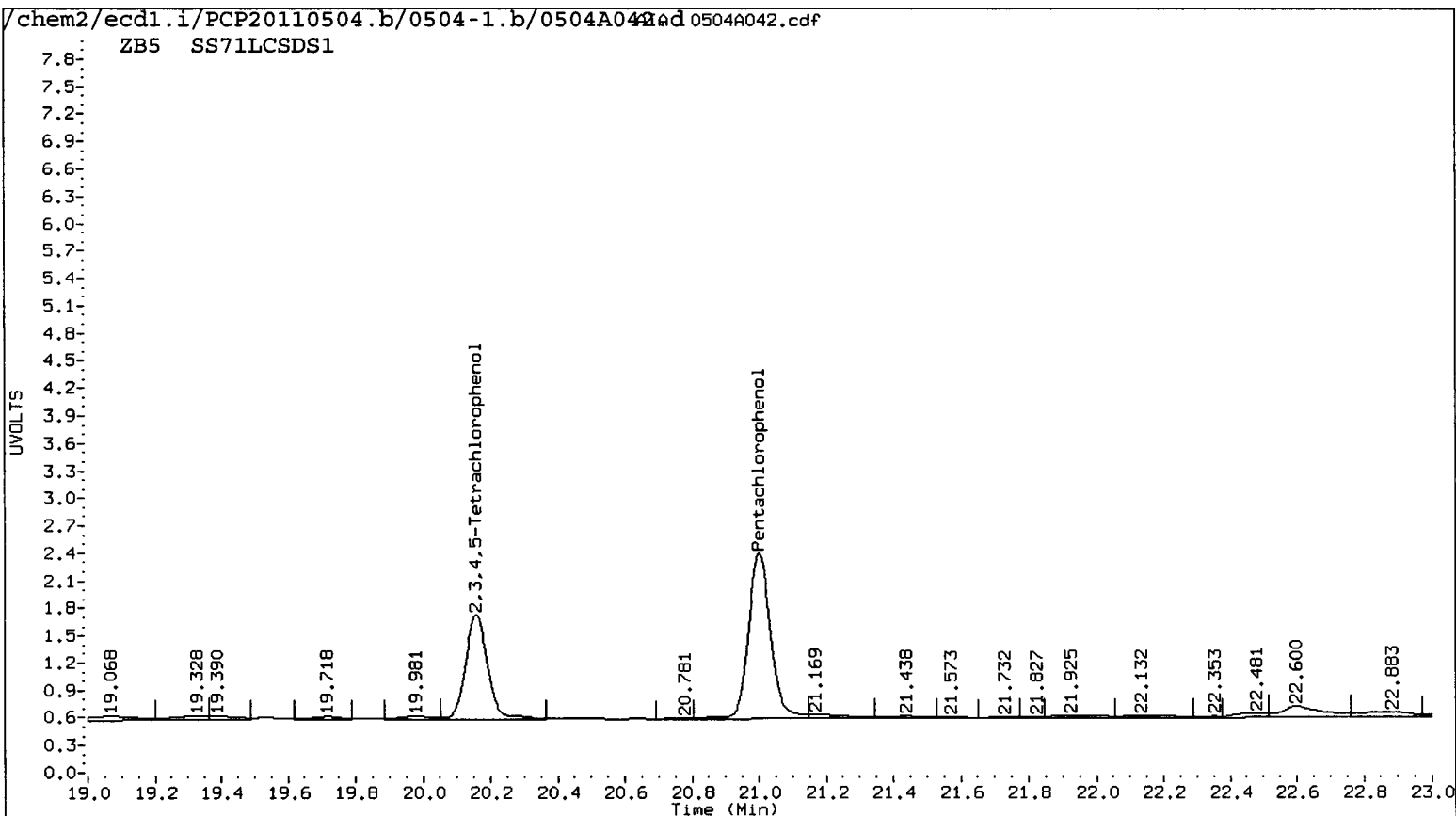
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 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.001	0.004	421917	22.971	0.004	558616	20.9397	19.8366	5.4	Pentachlorophenol
13.106	0.005	236716	14.315	0.004	290953	19.4464	20.0744	3.2	2,4,6-Trichlorophenol
14.101	0.004	240064	15.563	0.006	331842	20.9615	23.0873	9.7	2,3,6-Trichlorophenol
15.852	0.007	141263	17.478	0.004	154107	20.8563	19.0358	9.1	2,4,5-Trichlorophenol
17.356	0.005	153376	19.027	0.004	162794	18.3567	17.1226	7.0	2,3,4-Trichlorophenol
17.157	0.004	387175	18.817	0.003	441997	22.9007	20.1476	12.8	2,3,5,6-Tetrachlorophenol
20.158	0.003	266701	22.083	0.003	282579	20.5443	17.9689	13.4	2,3,4,5-Tetrachlorophenol
12.559	0.004	65397	13.826	0.006	58621	88.2135	71.8123	20.5	2,4-Dichlorophenol
18.599	0.004	571767	20.940	0.004	732464	36.3	34.8	4.2	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	83.8	79.3
2,4,6-Trichlorophenol	77.8	80.3
2,3,6-Trichlorophenol	83.8	92.3
2,4,5-Trichlorophenol	83.4	76.1
2,3,4-Trichlorophenol	73.4	68.5
2,3,5,6-Tetrachlorophenol	91.6	80.6
2,3,4,5-Tetrachlorophenol	82.2	71.9
2,4-Dichlorophenol	35.3	28.7
2,4,6-TBP (surr)	72.6	69.7





Data File: /chem2/ecd1.i/PCP20110504.b/0504-2.b/05040042.d

Date : 05-MAY-2011 09:52

Client ID: SS71LCS051

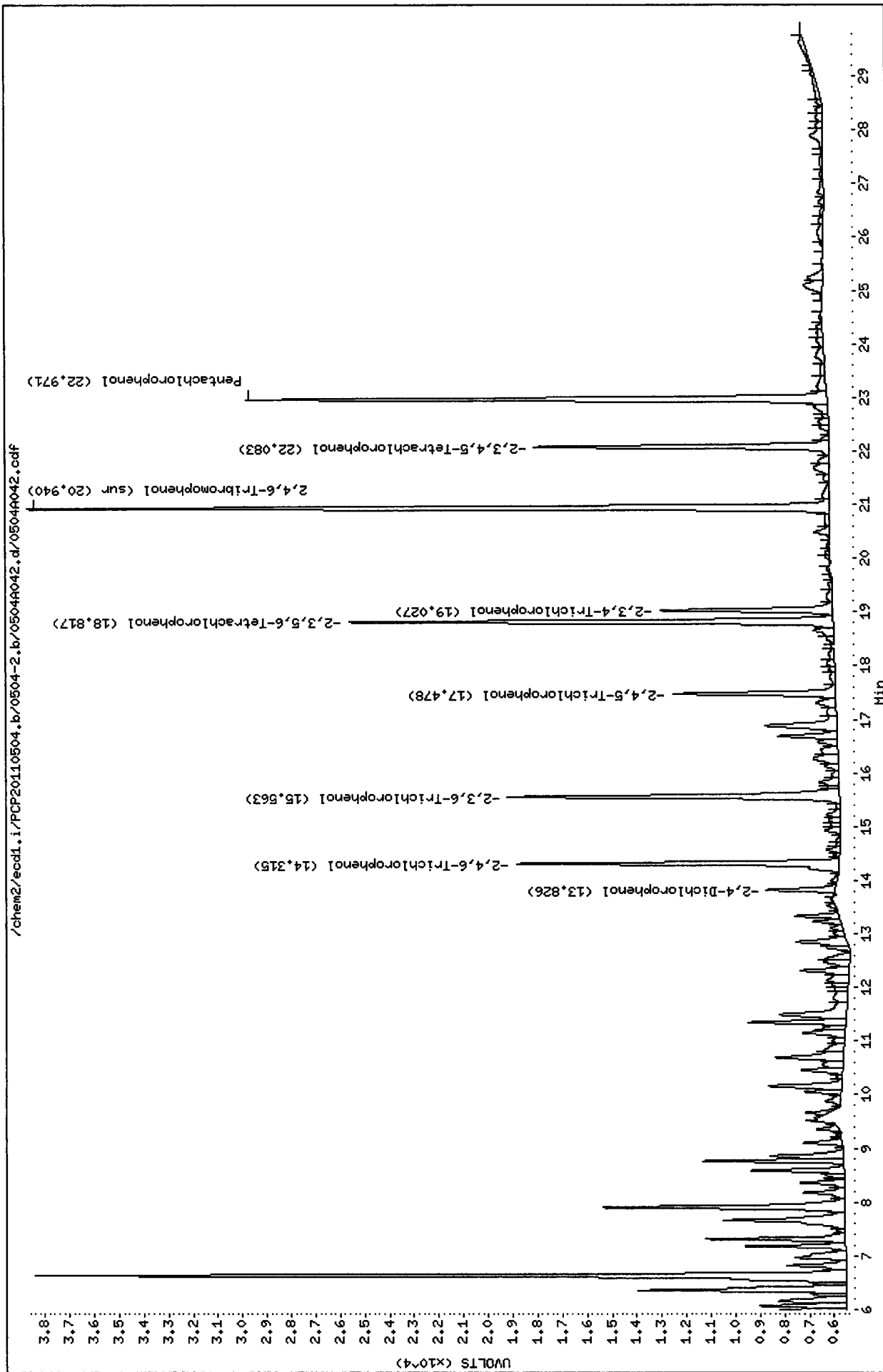
Sample Info: SS71LCS051

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2



Data File: /chem2/ecd1.i/PCP20110504.b/0504-1.b/0504A042.d

Date : 05-MAY-2011 09:52

Client ID: SS71LCS0S1

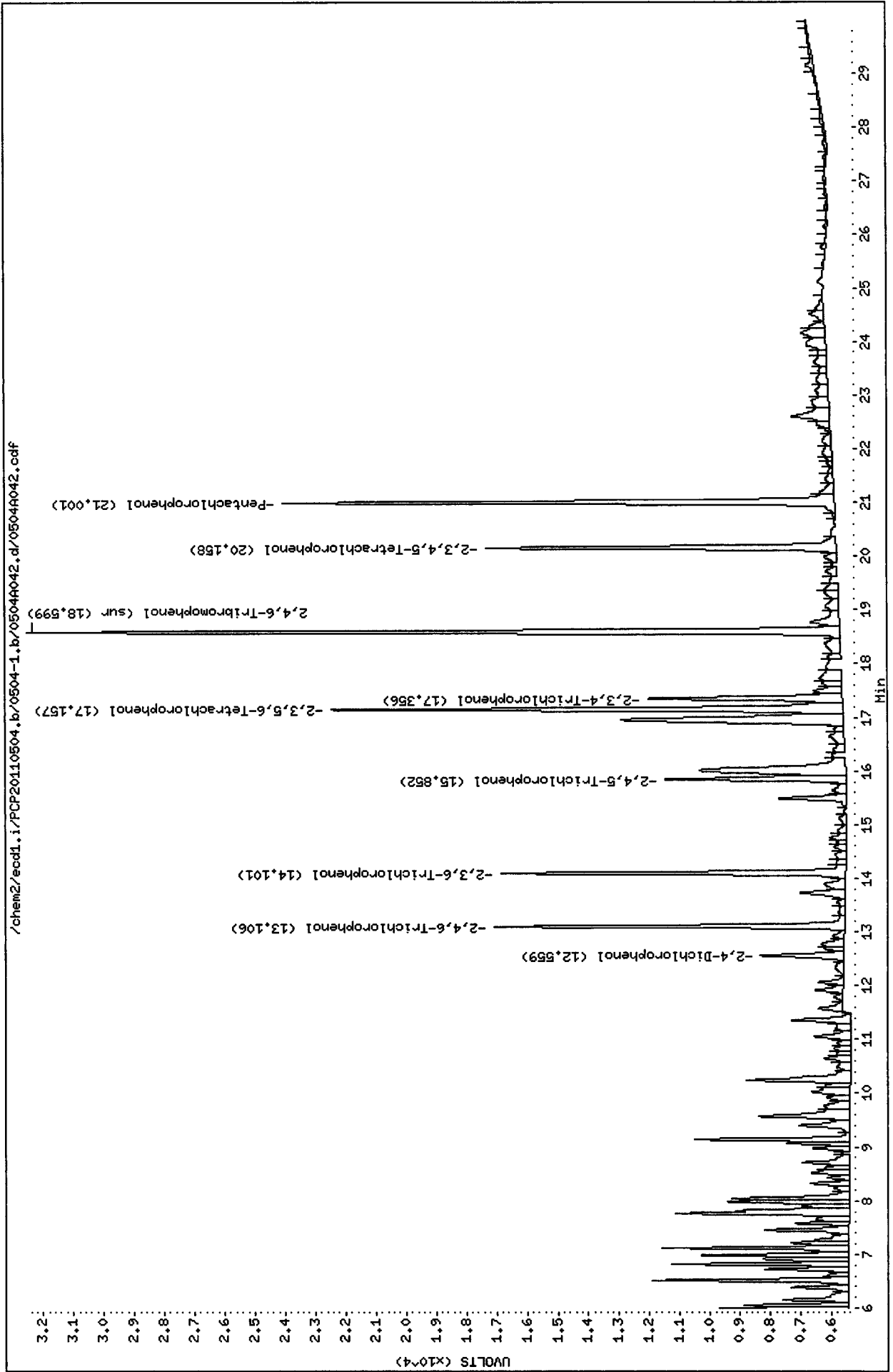
Sample Info: SS71LCS0S1

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



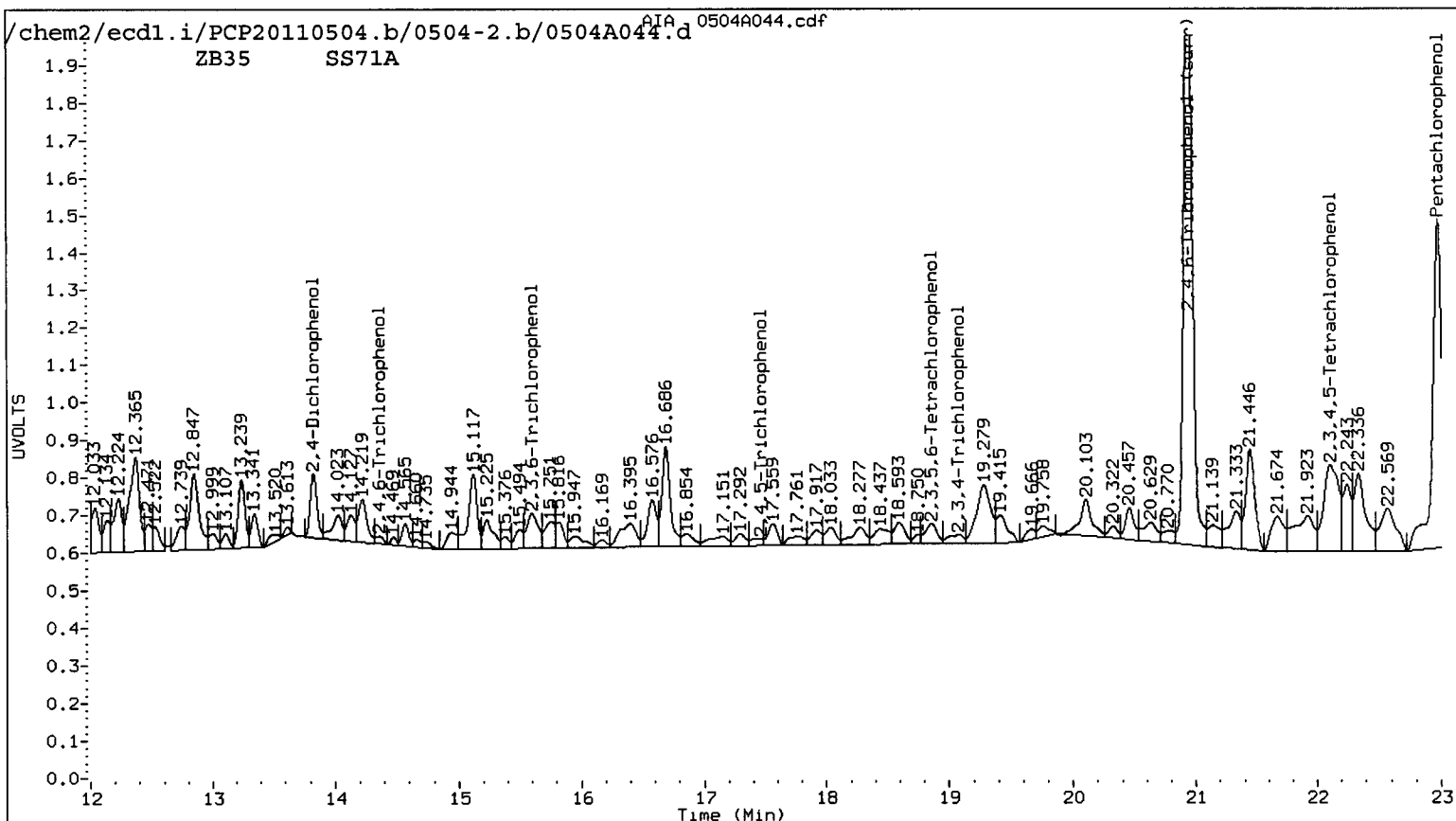
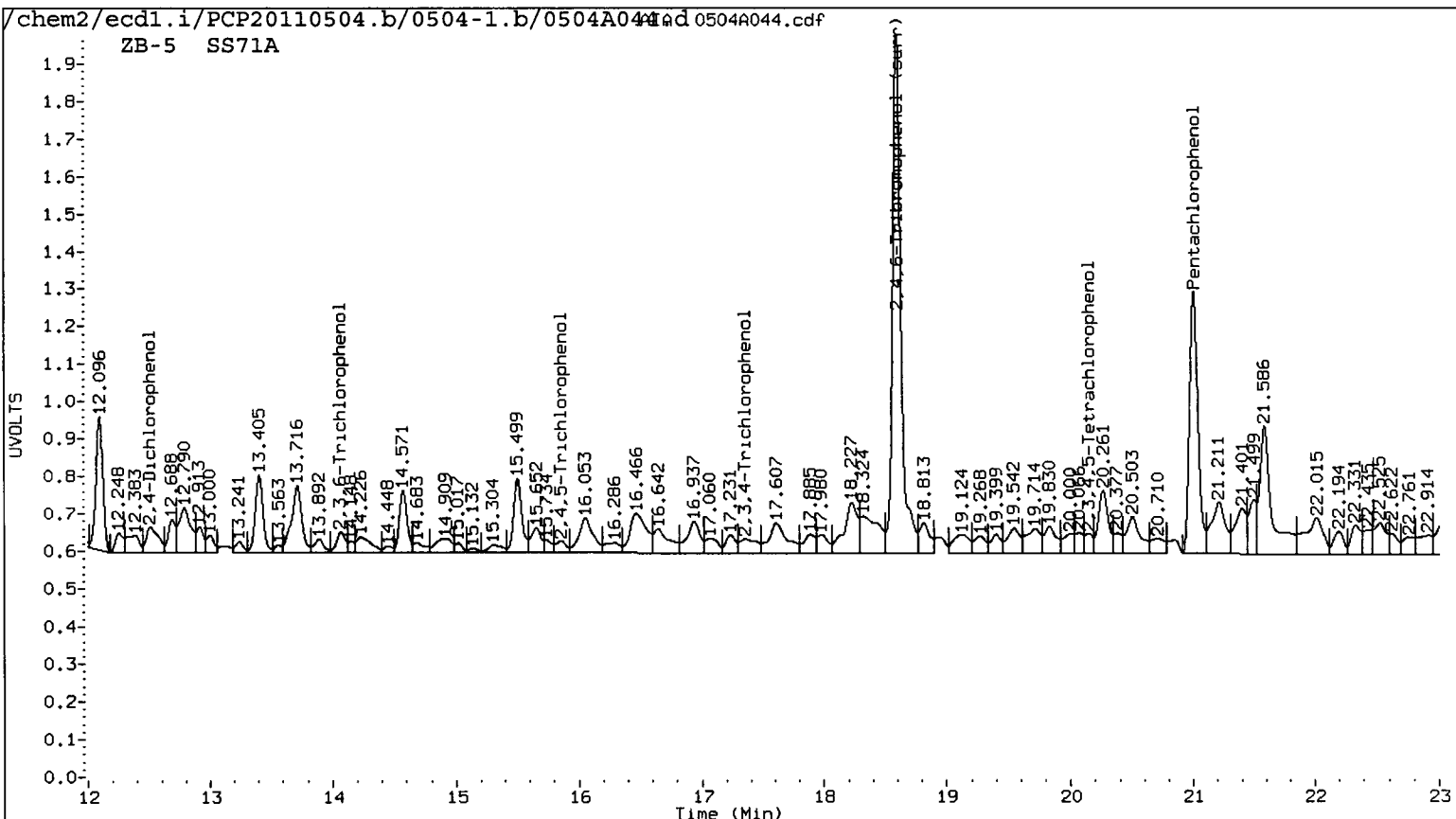
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

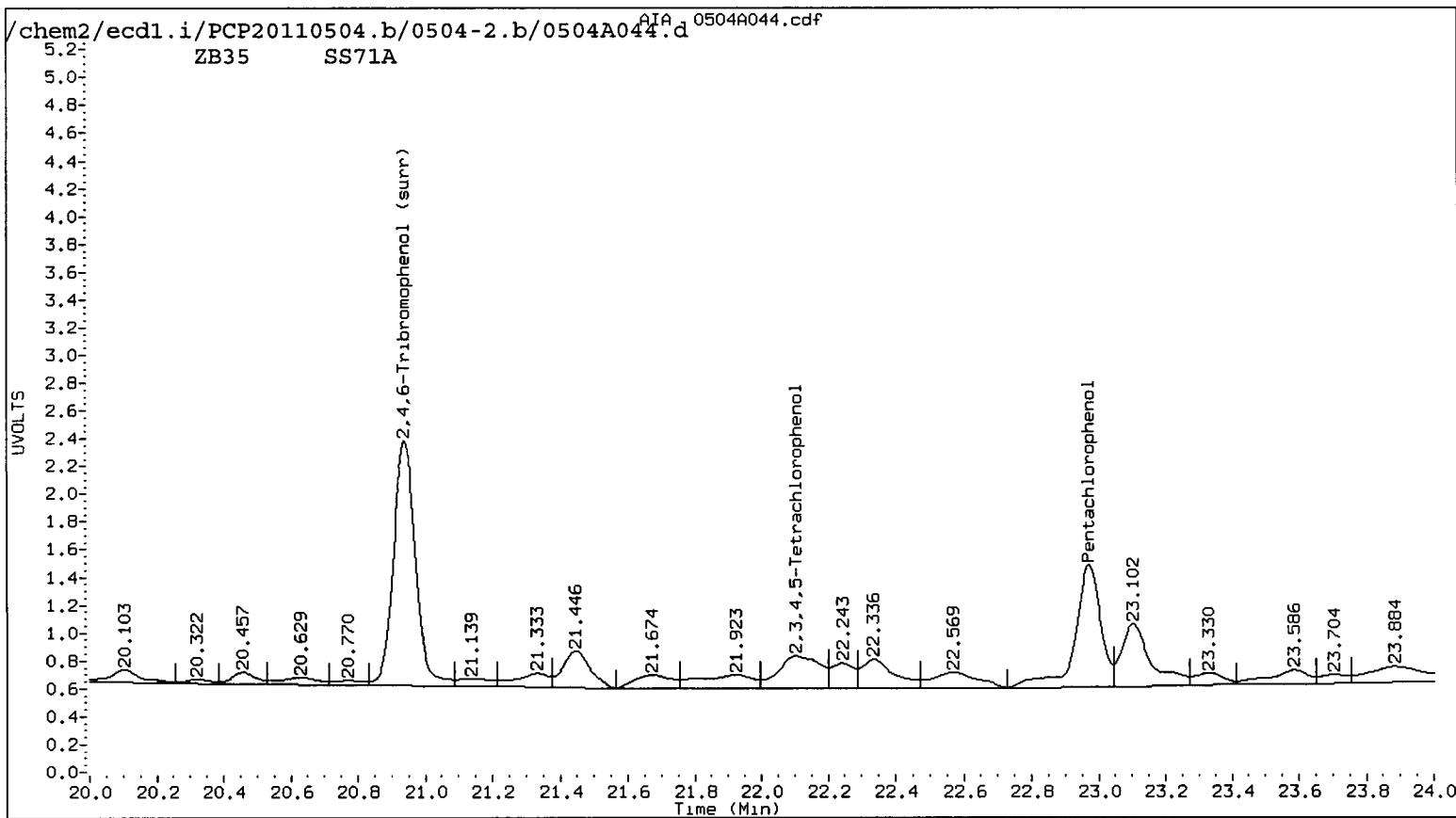
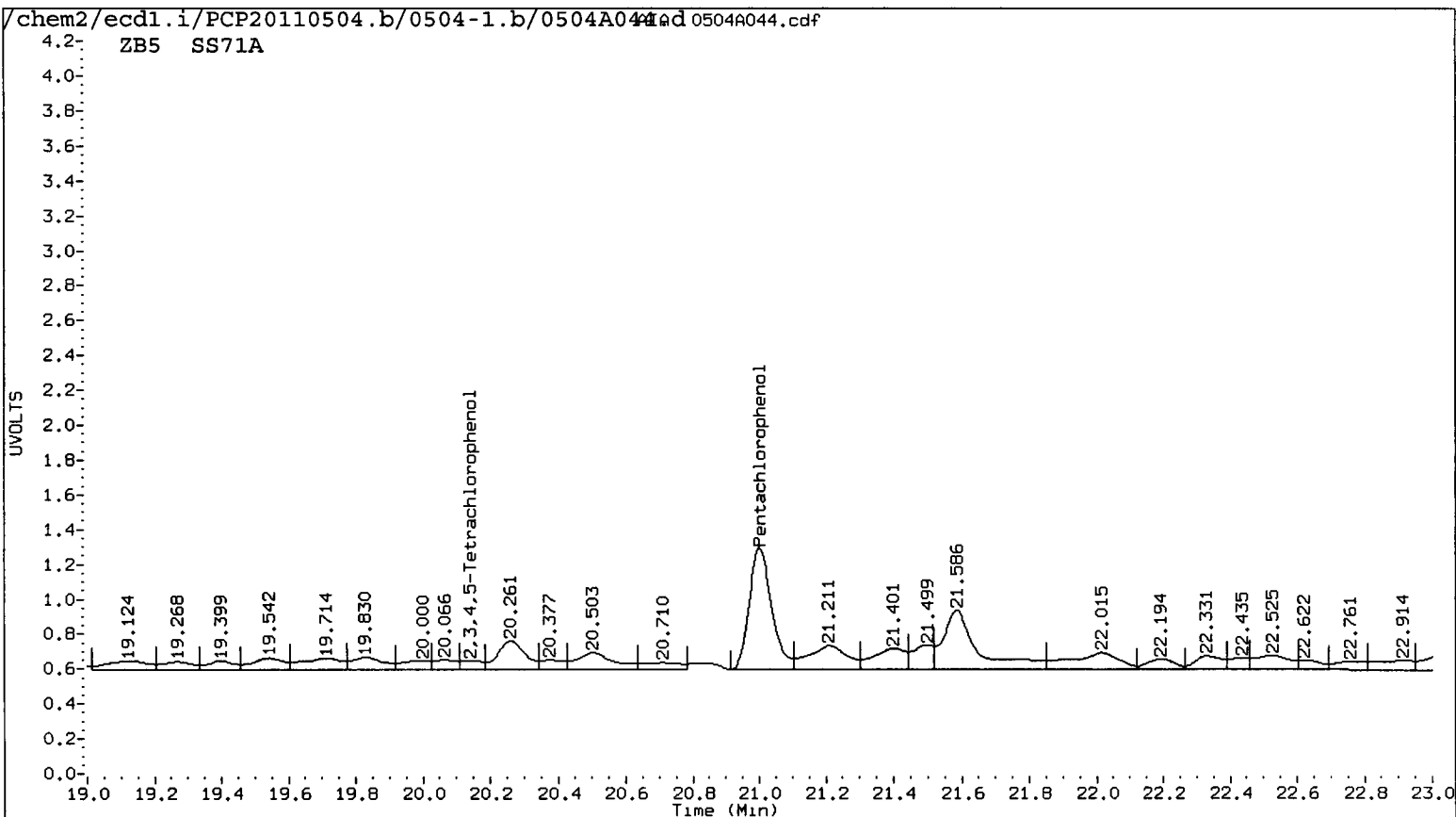
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A044.d Client ID: LL-SB6-0-0.5-041811
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 11:05
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.002	0.004	165308	22.971	0.004	231402	8.2042	8.2171	0.2	Pentachlorophenol
----			14.360	0.049	3861	0.0000	0.2664	---	2,4,6-Trichlorophenol
14.064	-0.033	13377	15.594	0.037	29527	1.1681	2.0543	55.0*	2,3,6-Trichlorophenol
15.855	0.010	8767	17.456	-0.018	6030	1.1455	0.7448	42.4*	2,4,5-Trichlorophenol
17.353	0.002	17681	19.081	0.058	9851	2.1162	0.9437	76.6*	2,3,4-Trichlorophenol
----			18.856	0.042	17538	0.0000	0.7994	---	2,3,5,6-Tetrachlorophenol
20.144	-0.010	11763	22.102	0.022	98613	0.9062	5.9349	147.0*	2,3,4,5-Tetrachlorophenol
12.510	-0.045	23253	13.824	0.004	33321	29.6298	39.3743	28.2	2,4-Dichlorophenol
18.597	0.002	332819	20.938	0.002	403790	21.1	19.2	9.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	84.6	76.8



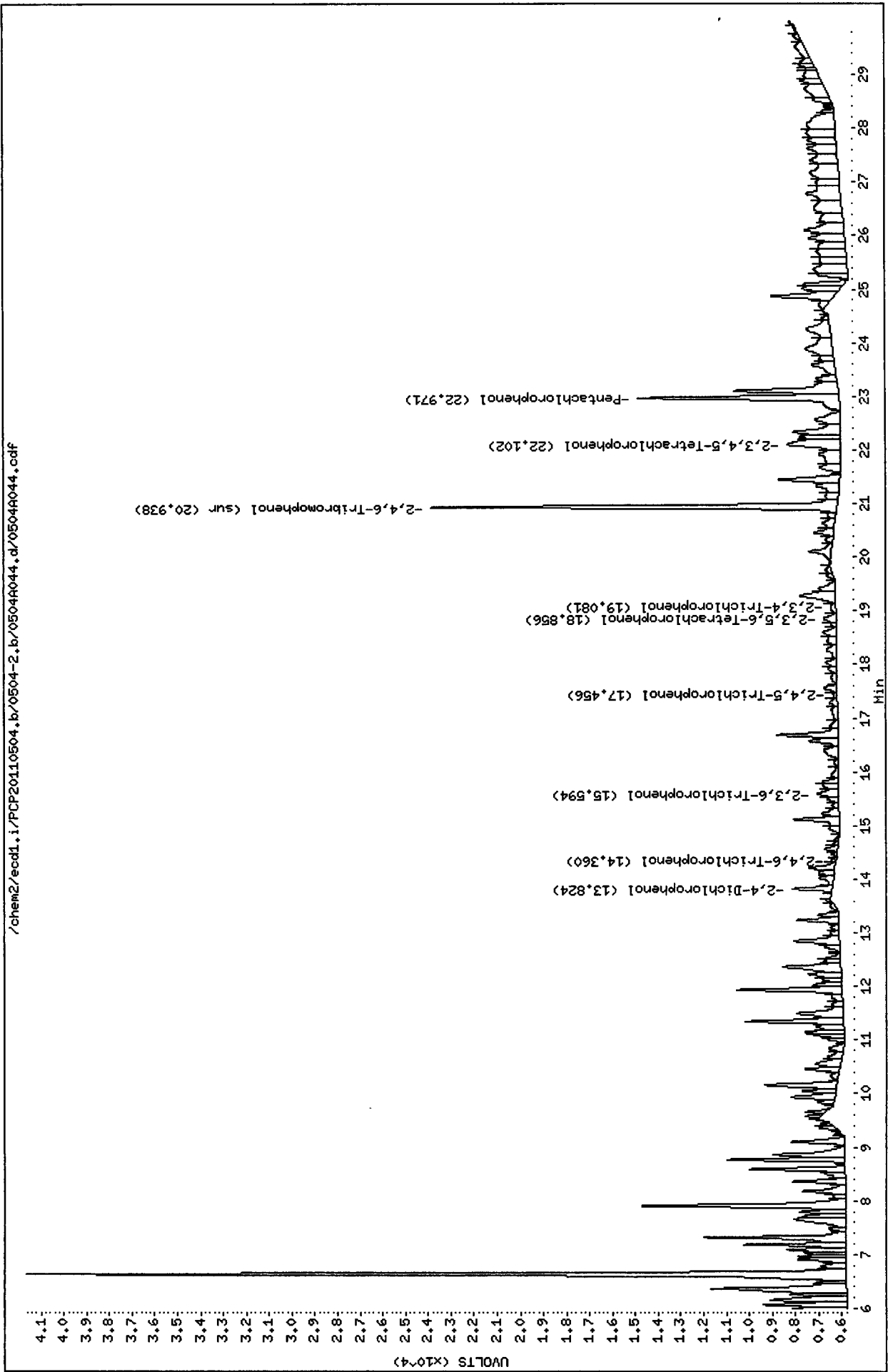


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Date : 05-MAY-2011 11:05
Client ID: LL-SB6-0-0.5-041811
Sample Info: SS71A

Instrument: ecd1.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP2



Data File: /chem2/ecdl1.i/PCP20110504.b/0504-1.b/0504A044.d

Date : 05-MAY-2011 11:05

Client ID: LL-SB6-0-0.5-041811

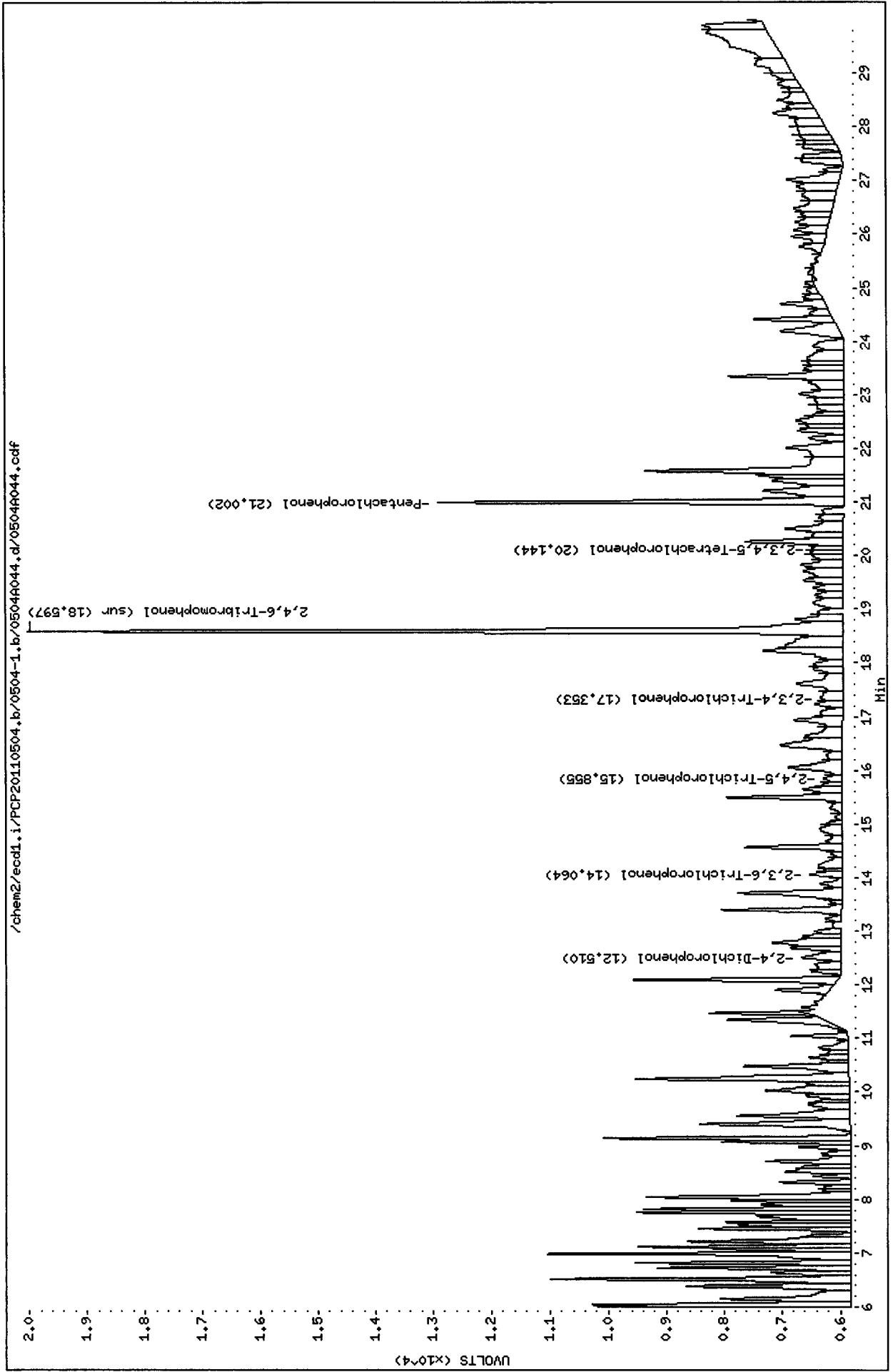
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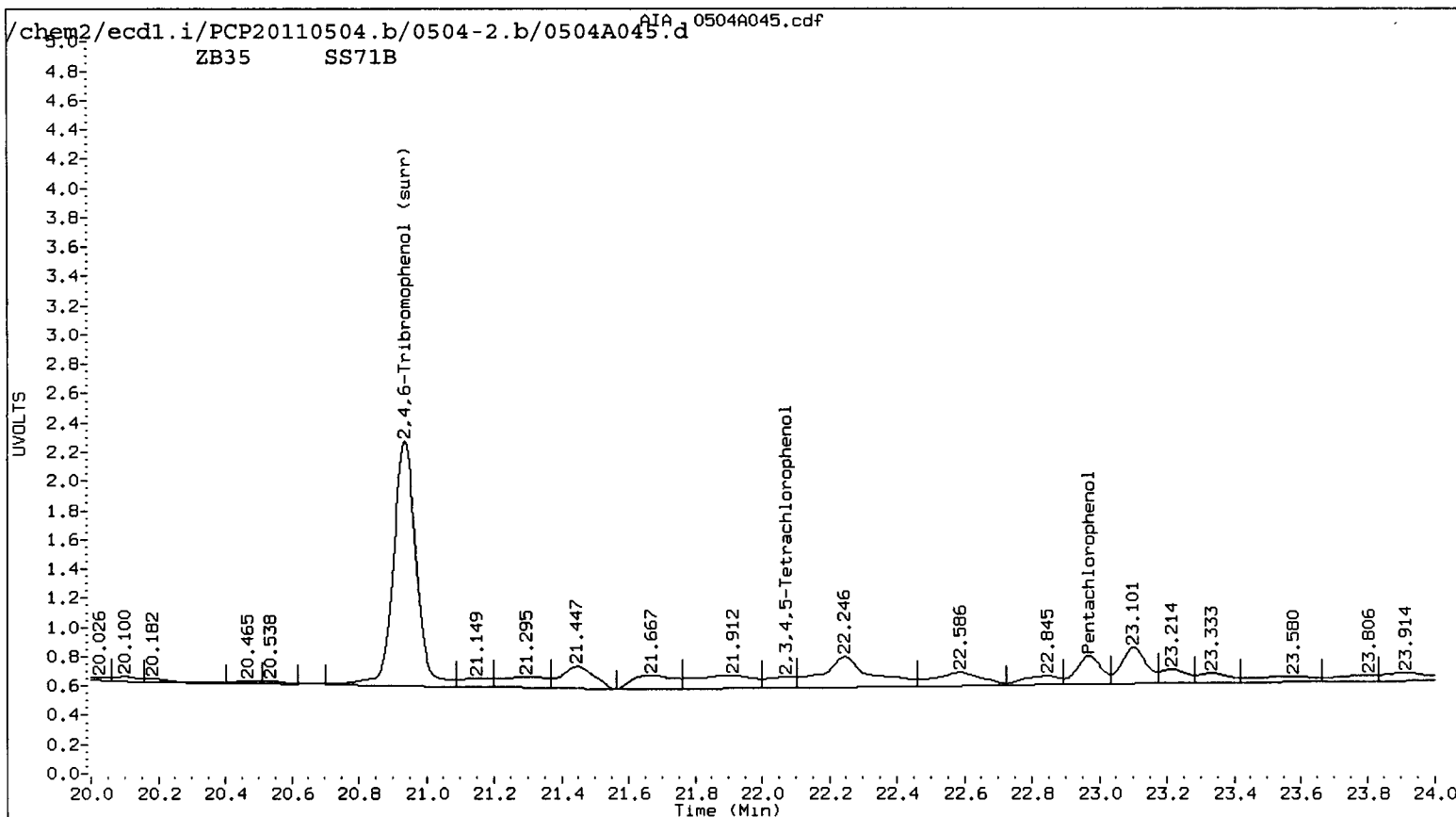
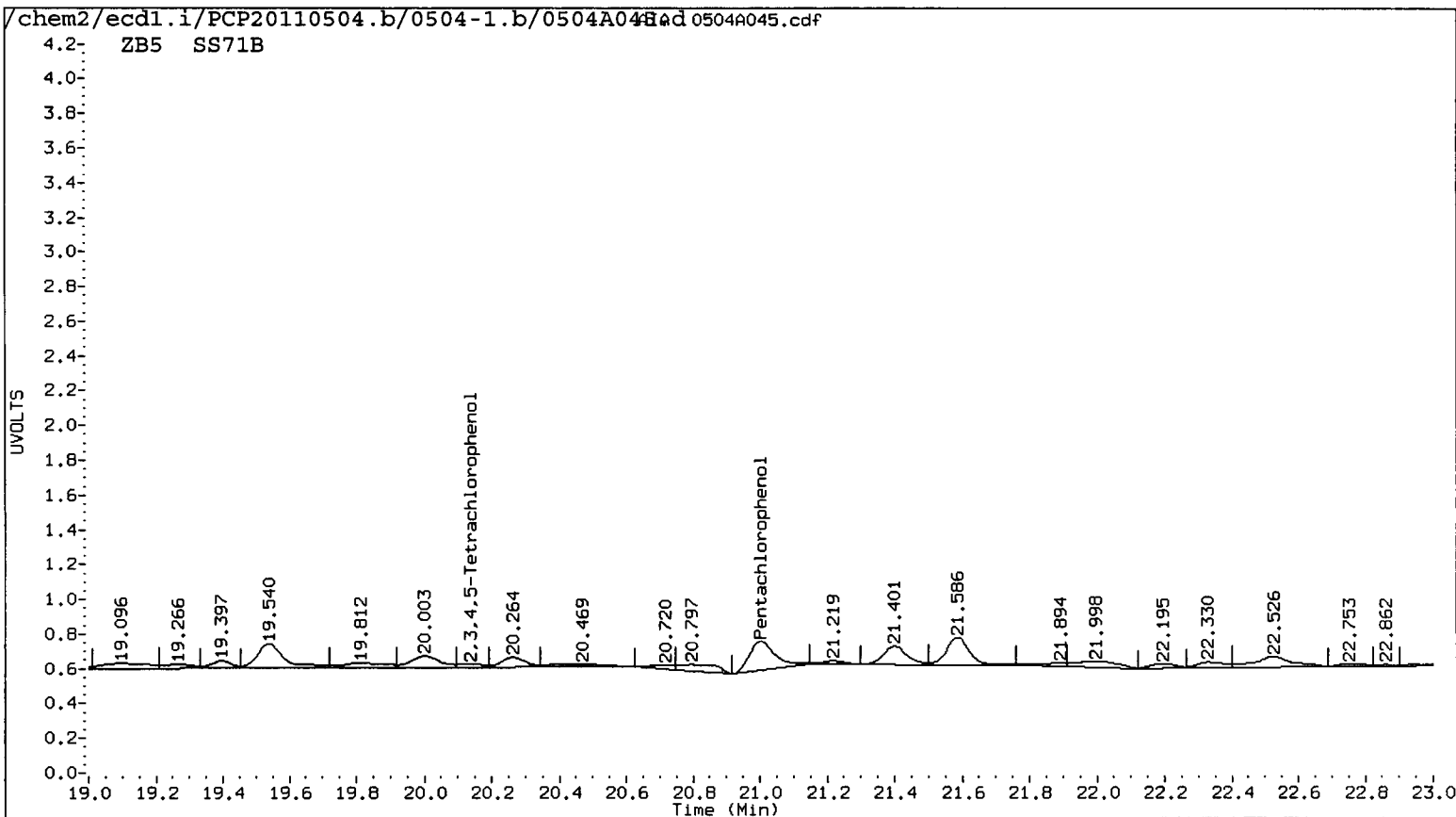
Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1





Data File: /chem2/ecd1.i/PCP20110504.b/0504-2.b/0504A045.d

Date : 05-MAY-2011 11:41

Client ID: LL-SB6-1.5-2-041811

Sample Info: SS71B

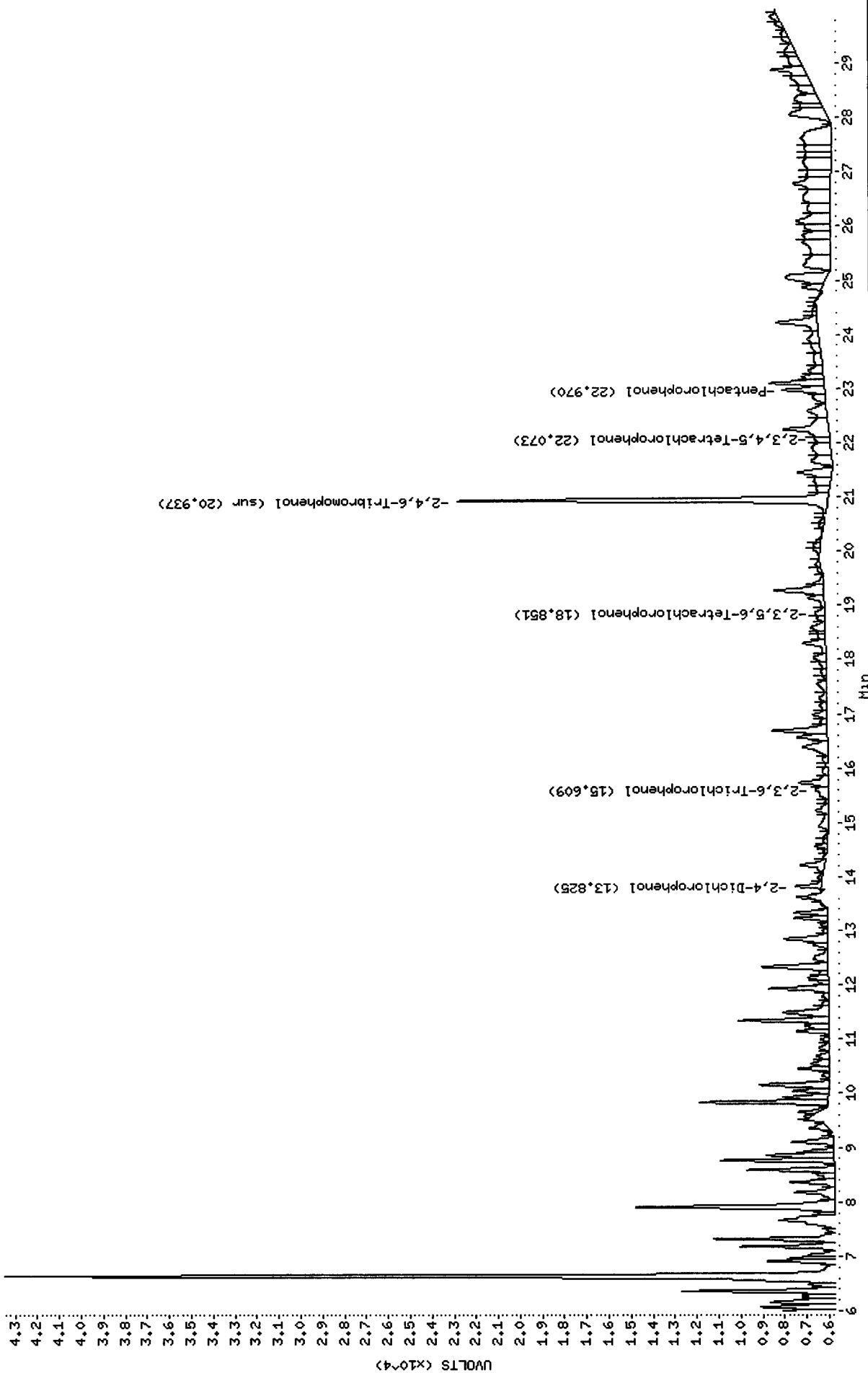
Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

/chem2/ecd1.i/PCP20110504.b/0504-2.b/0504A045.d/0504A045.cdf

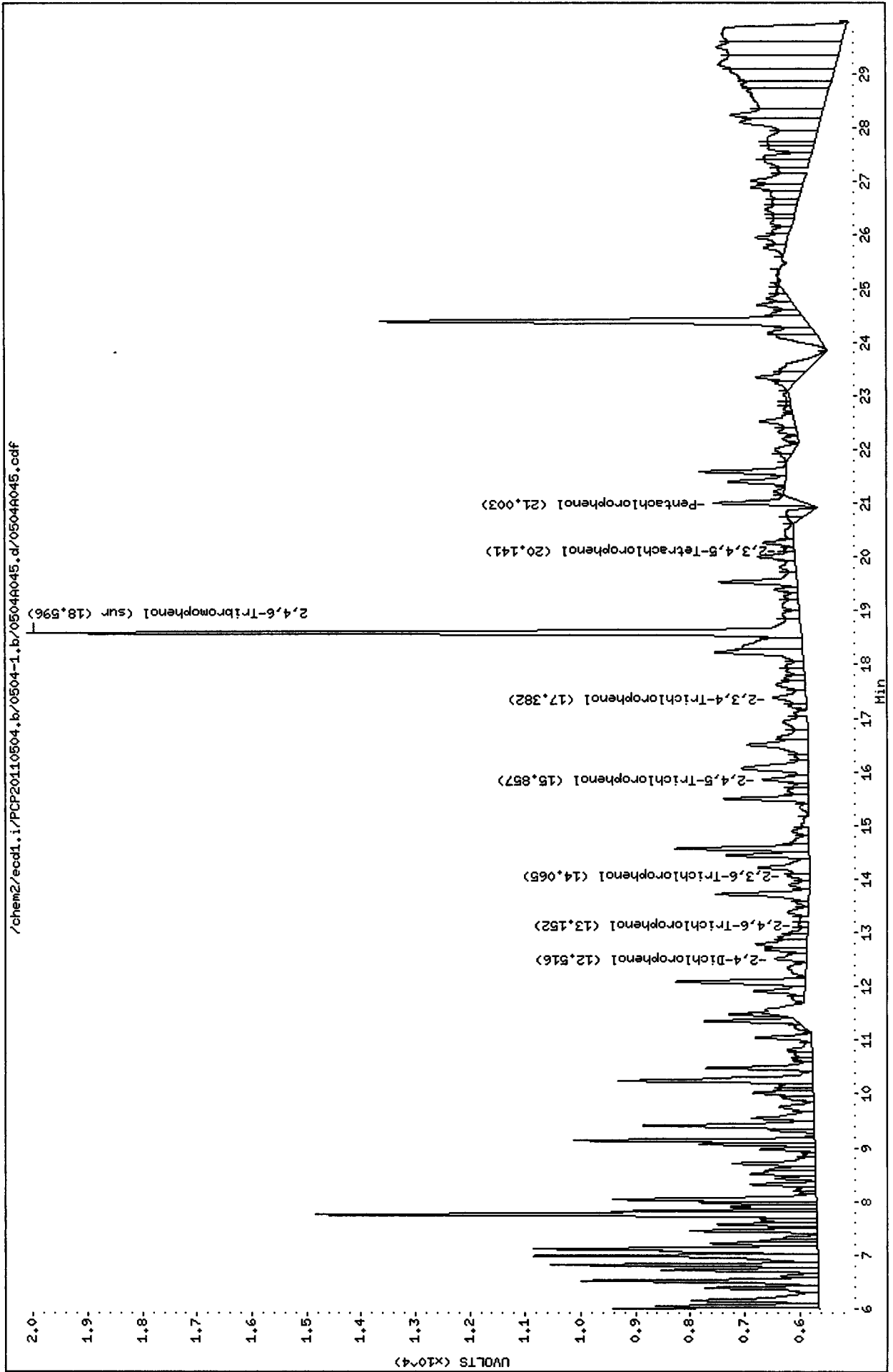


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Client ID: LL-SB6-1.5-2-041811
Sample Info: SS71B

Instrument: eccl.i

Operator: ar
Column diameter: 0.53

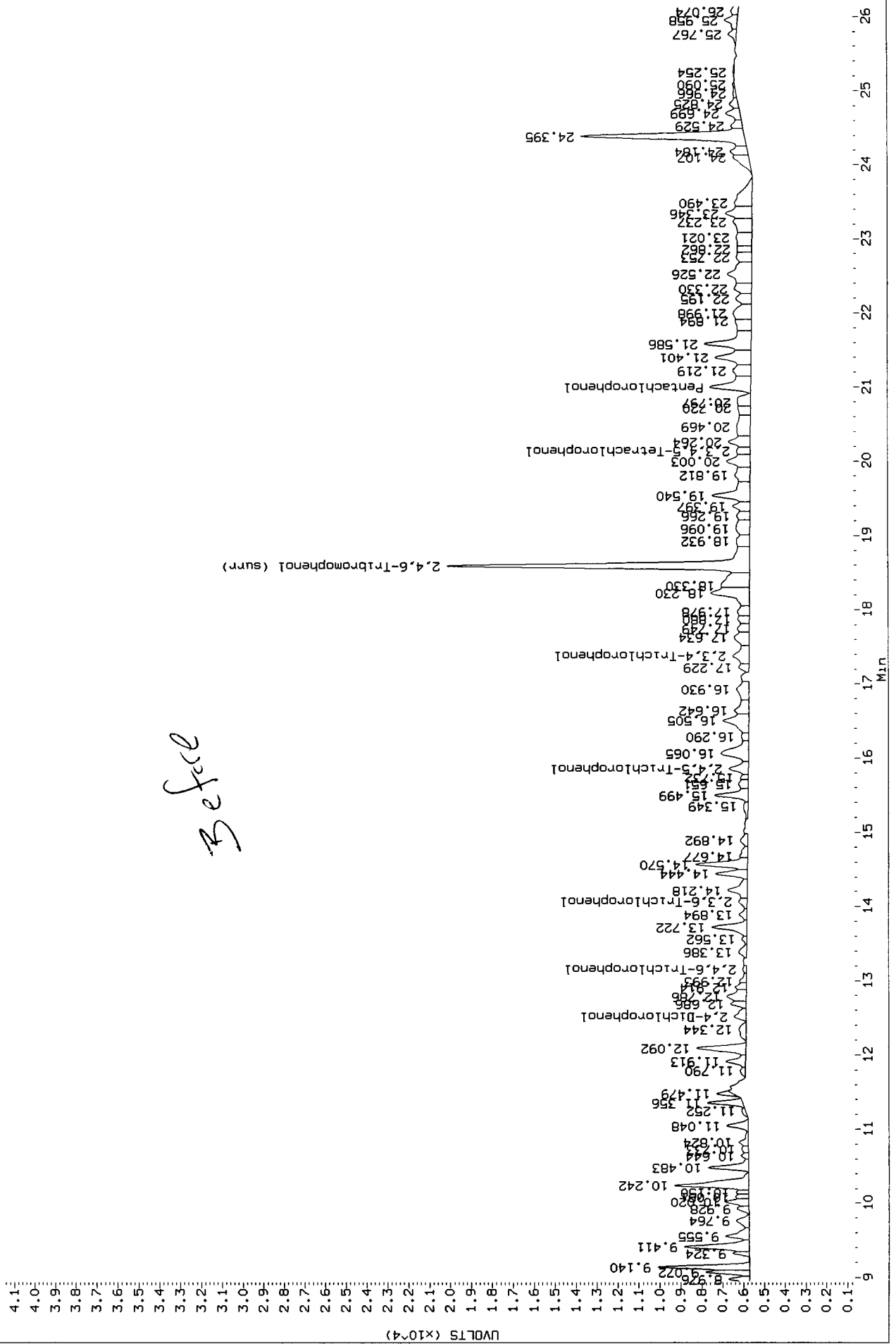
Column phase: STX CLP1



Data File: /chem2/ecdl1/PCP20110504.b/0504-1.b/0504A045.d/0504A045.cdf
 Injection Date: 05-MAY-2011 11:41
 Instrument: ecdl1
 Client Sample ID: LL-SB6-1.5-2-041811

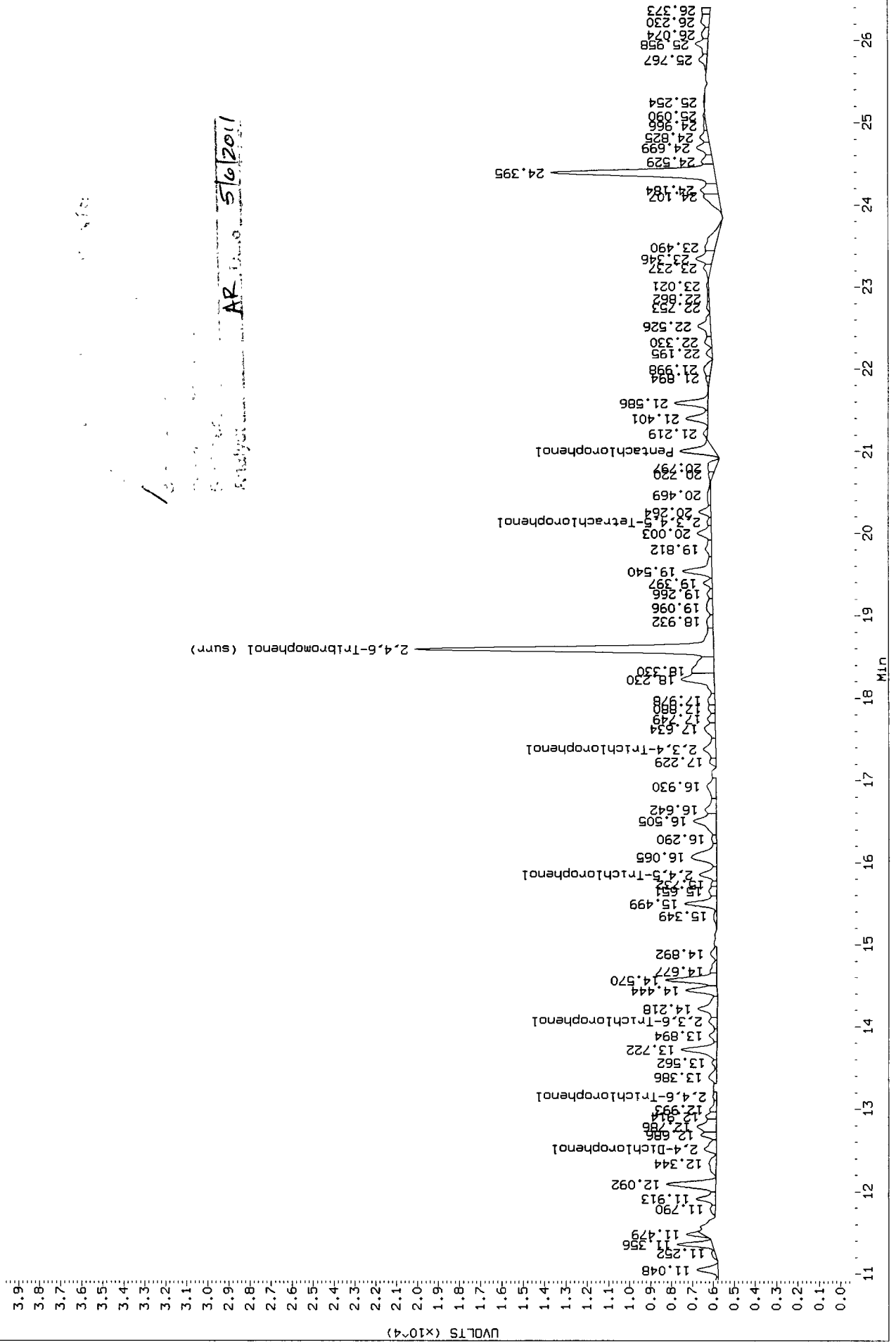
AIA 0504A045.cdf: 8.950 to 26.138 Min

Before



Data File: /chem2/ecd1.1/PCF20110504.b/0504-1.b/0504A045.d/0504A045.cdf
 Injection Date: 05-MAY-2011 11:41
 Instrument: ecd1.1
 Client Sample ID: LL-SB6-1.5-2-041811

AIA 0504A045.cdf: 10.929 to 26.404 Min



60110 : 1757

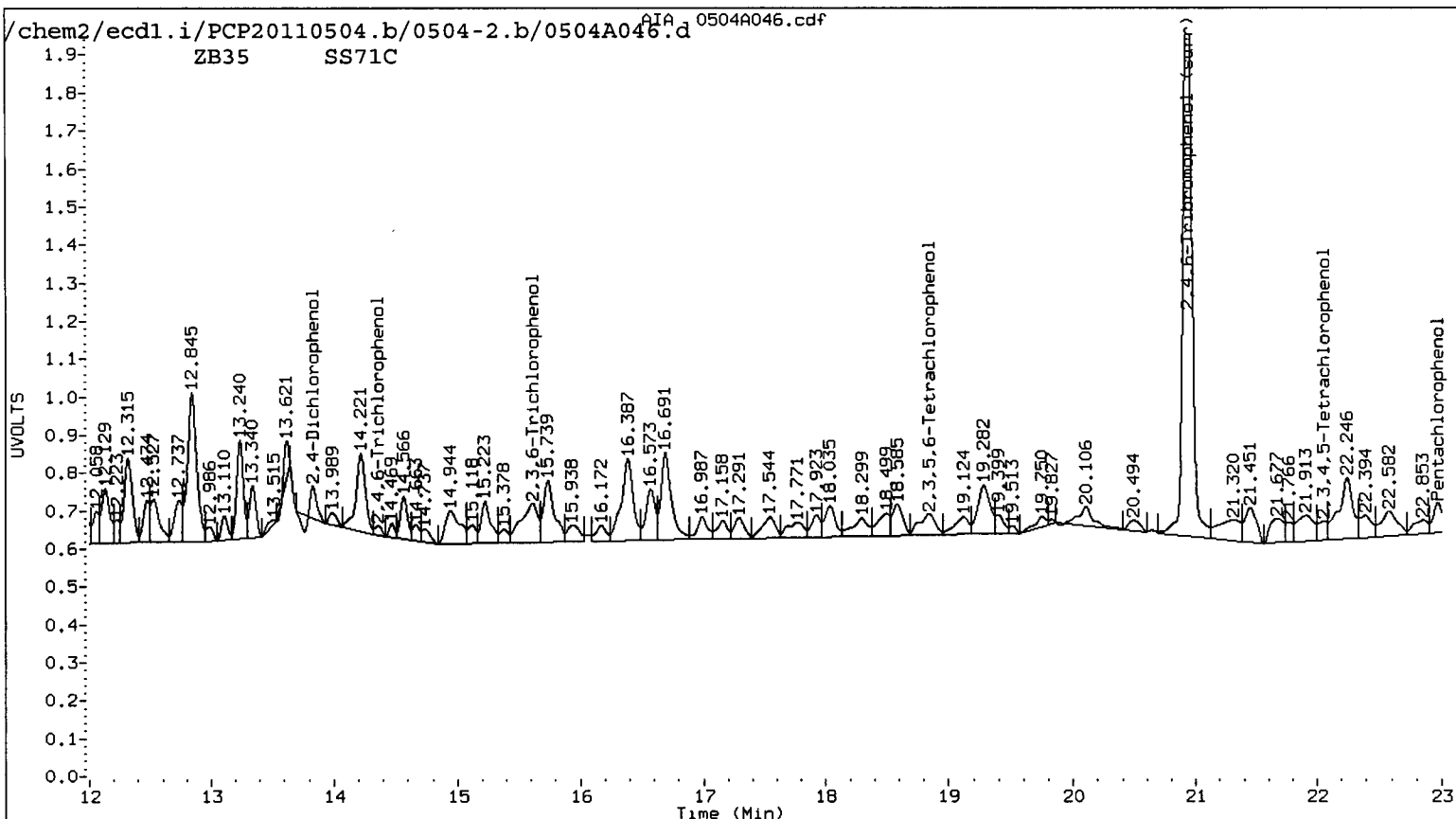
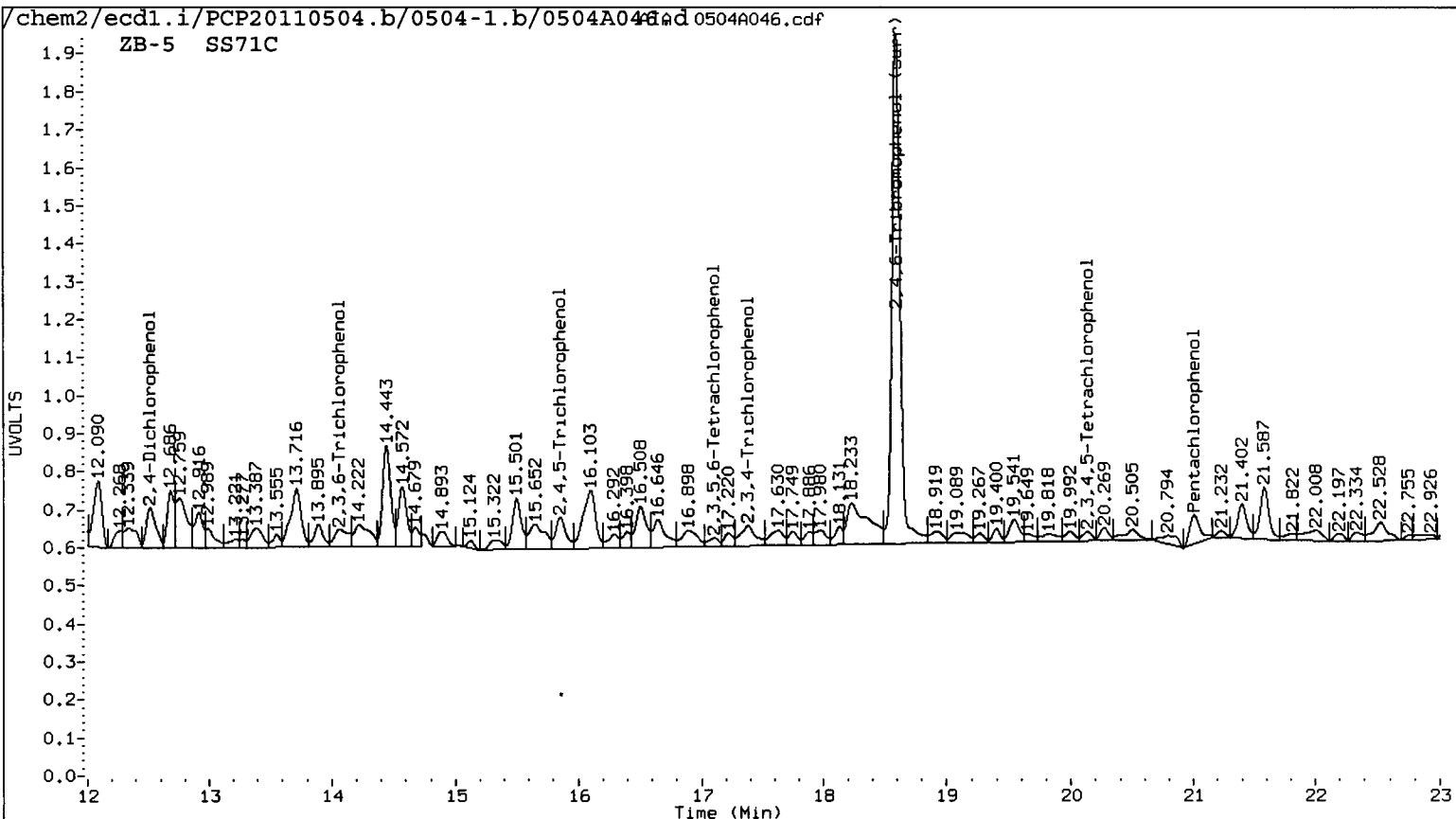
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

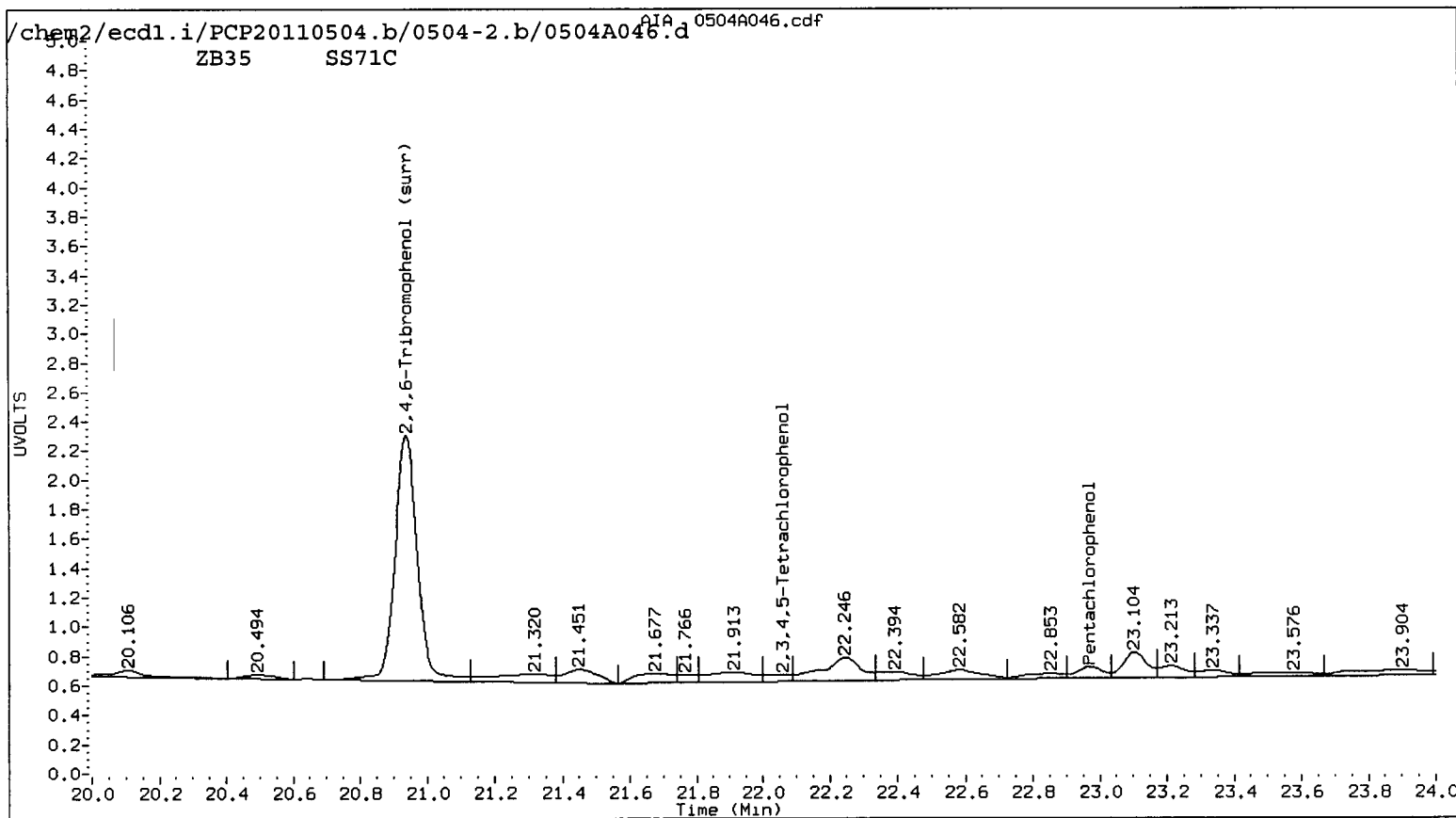
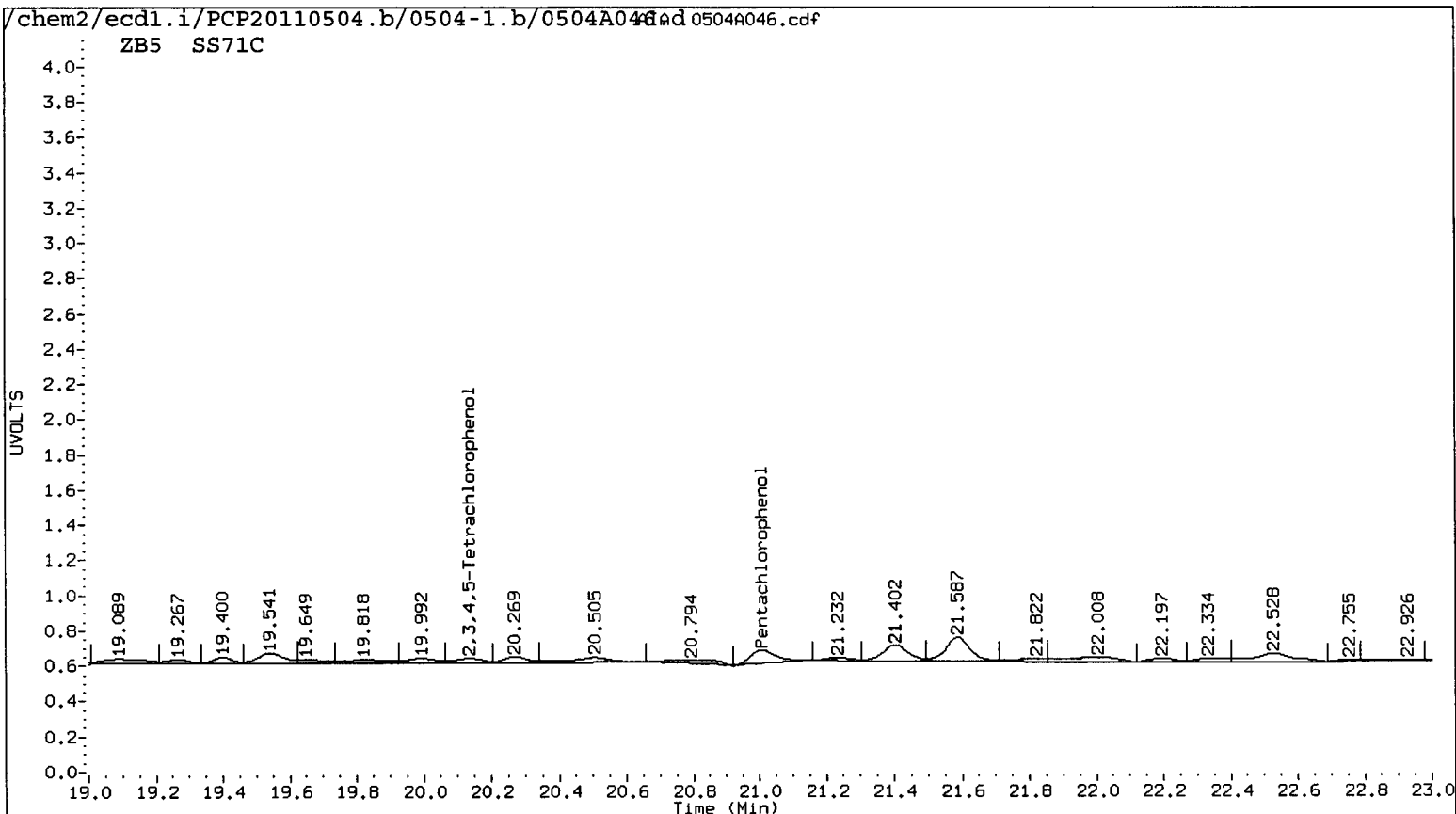
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A046.d Client ID: LL-SB6-2-4-041811
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 12:18
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.007	0.010	22289	22.970	0.003	20614	1.1062	0.7320	40.7*	Pentachlorophenol
----			14.360	0.049	4552	0.0000	0.3141	---	2,4,6-Trichlorophenol
14.063	-0.034	19124	15.613	0.056	47789	1.6698	3.3249	66.3*	2,3,6-Trichlorophenol
15.858	0.013	23537	----			3.1195	0.0000	---	2,4,5-Trichlorophenol
17.380	0.029	22941	----			2.7457	0.0000	---	2,3,4-Trichlorophenol
17.107	-0.046	6511	18.845	0.031	25038	0.3851	1.1413	99.1*	2,3,5,6-Tetrachlorophenol
20.136	-0.019	6705	22.061	-0.019	12615	0.5165	0.7391	35.5	2,3,4,5-Tetrachlorophenol
12.518	-0.037	28714	13.831	0.011	9446	36.8665	10.7754	109.5*	2,4-Dichlorophenol
18.597	0.002	316078	20.939	0.003	388723	20.1	18.5	8.2	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	80.3	74.0





Data File: /chem2/ecdl1.i/PCP20110504.b/0504-2.b/0504A046.d

Date : 05-MAY-2011 12:18

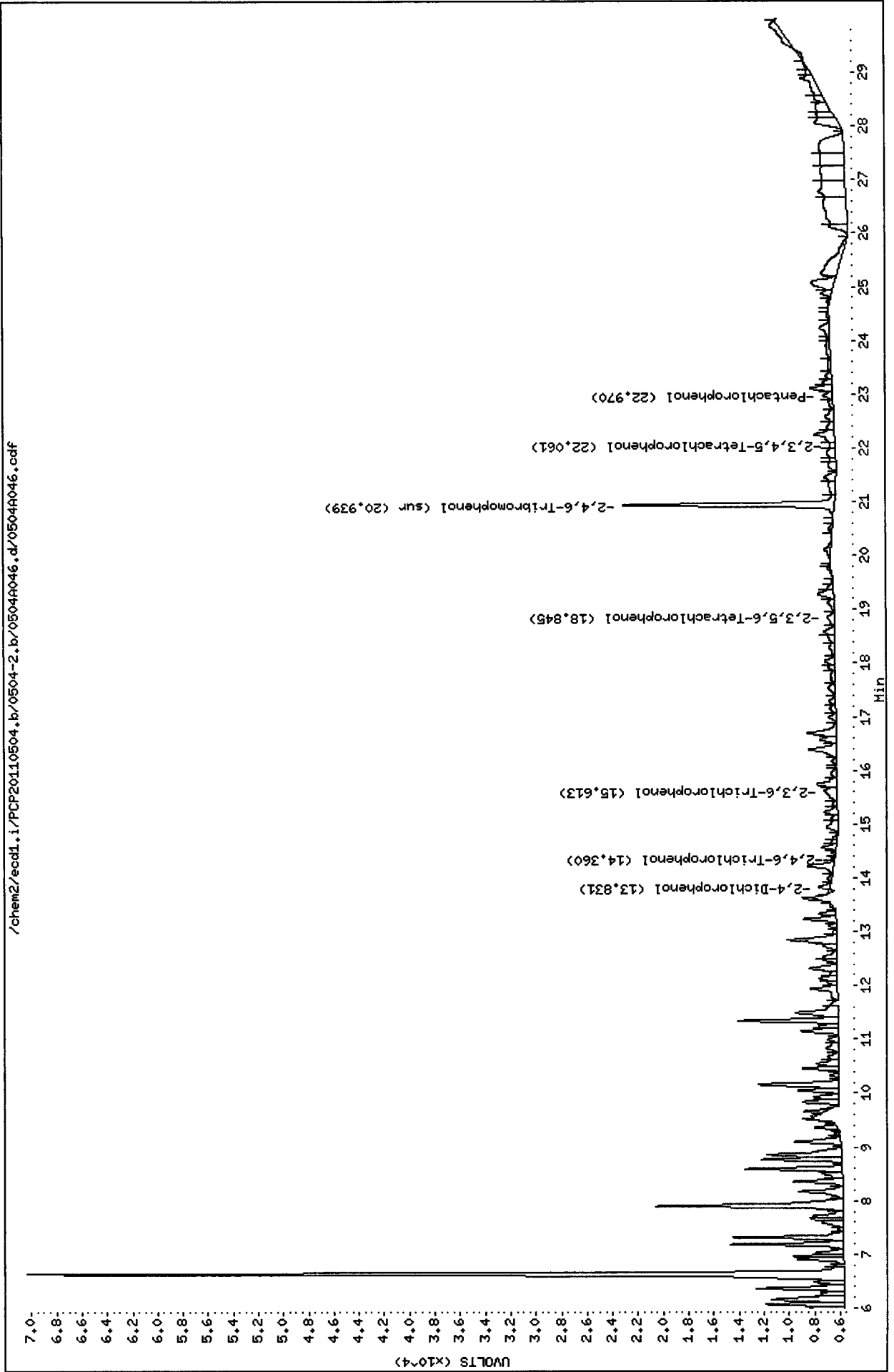
Client ID: LL-SB6-2-4-041811

Sample Info: SS71C

Instrument: ecd1.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP2



Data File: /chem2/ecd1.i/PCP20110504.b/0504-1.b/0504A046.d

Date : 05-MAY-2011 12:18

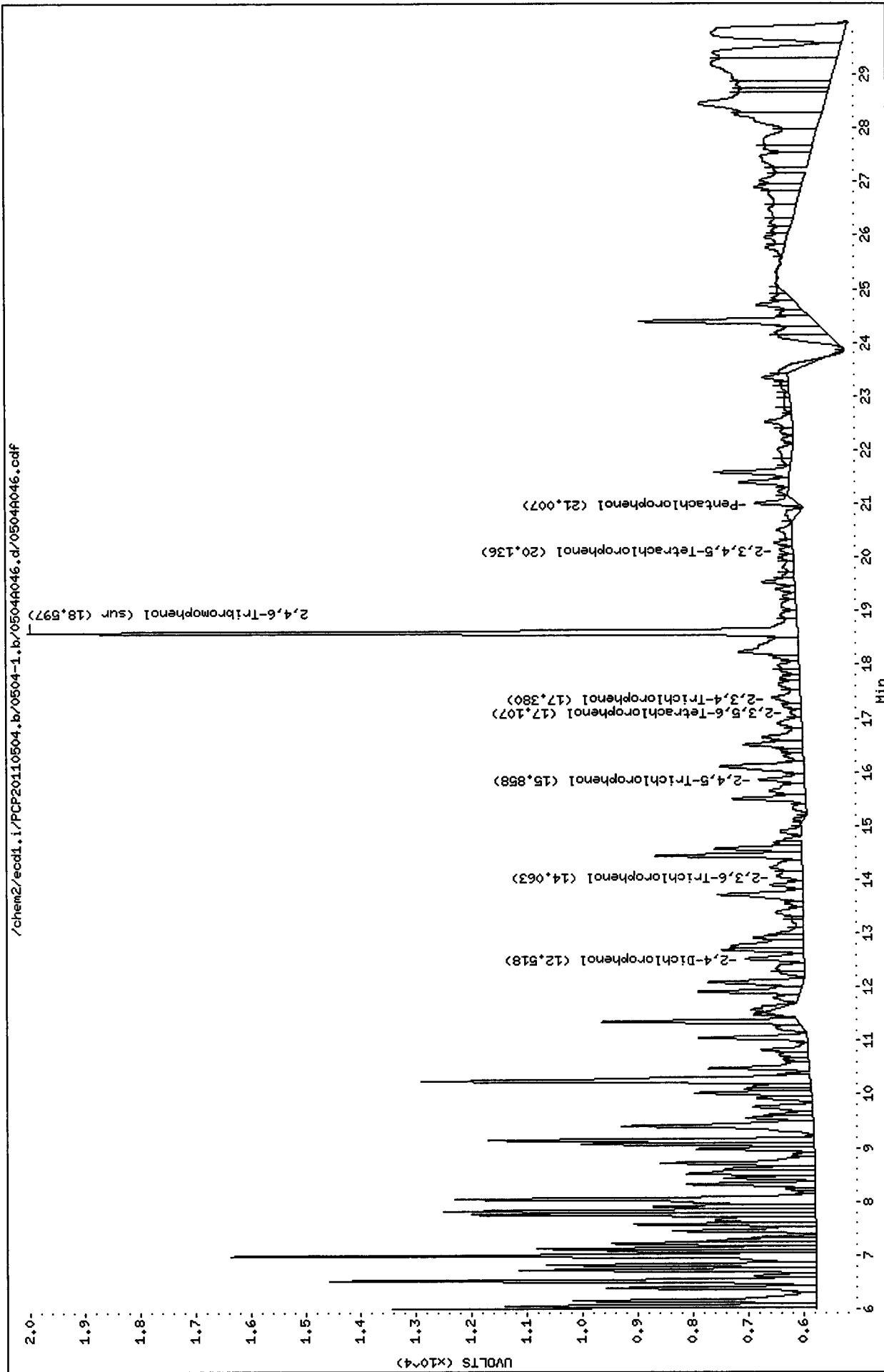
Client ID: LL-SB6-2-4-041811

Sample Info: SS71C

Instrument: ecd1.i

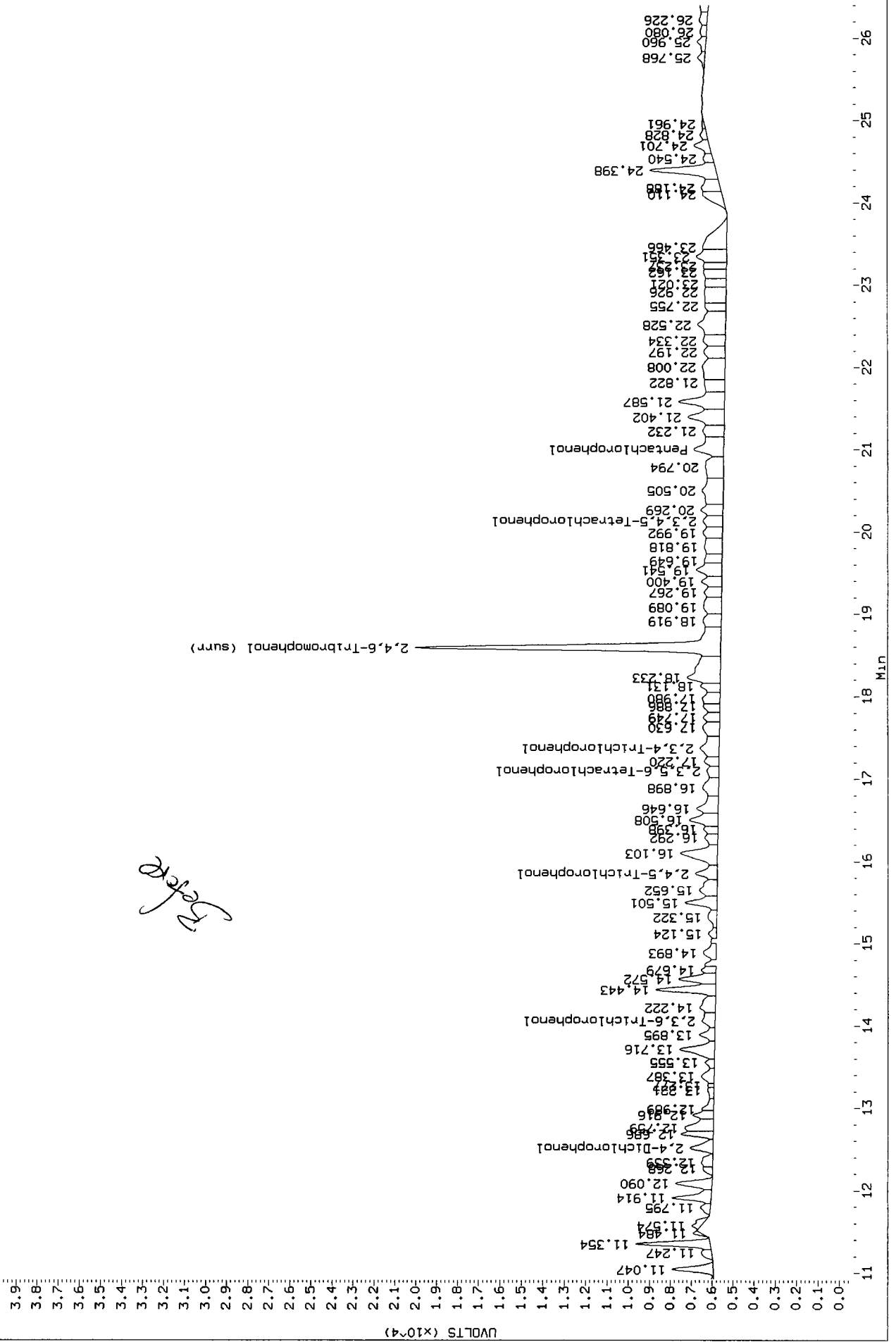
Operator: ar
Column diameter: 0.53

Column phase: STX CLP1



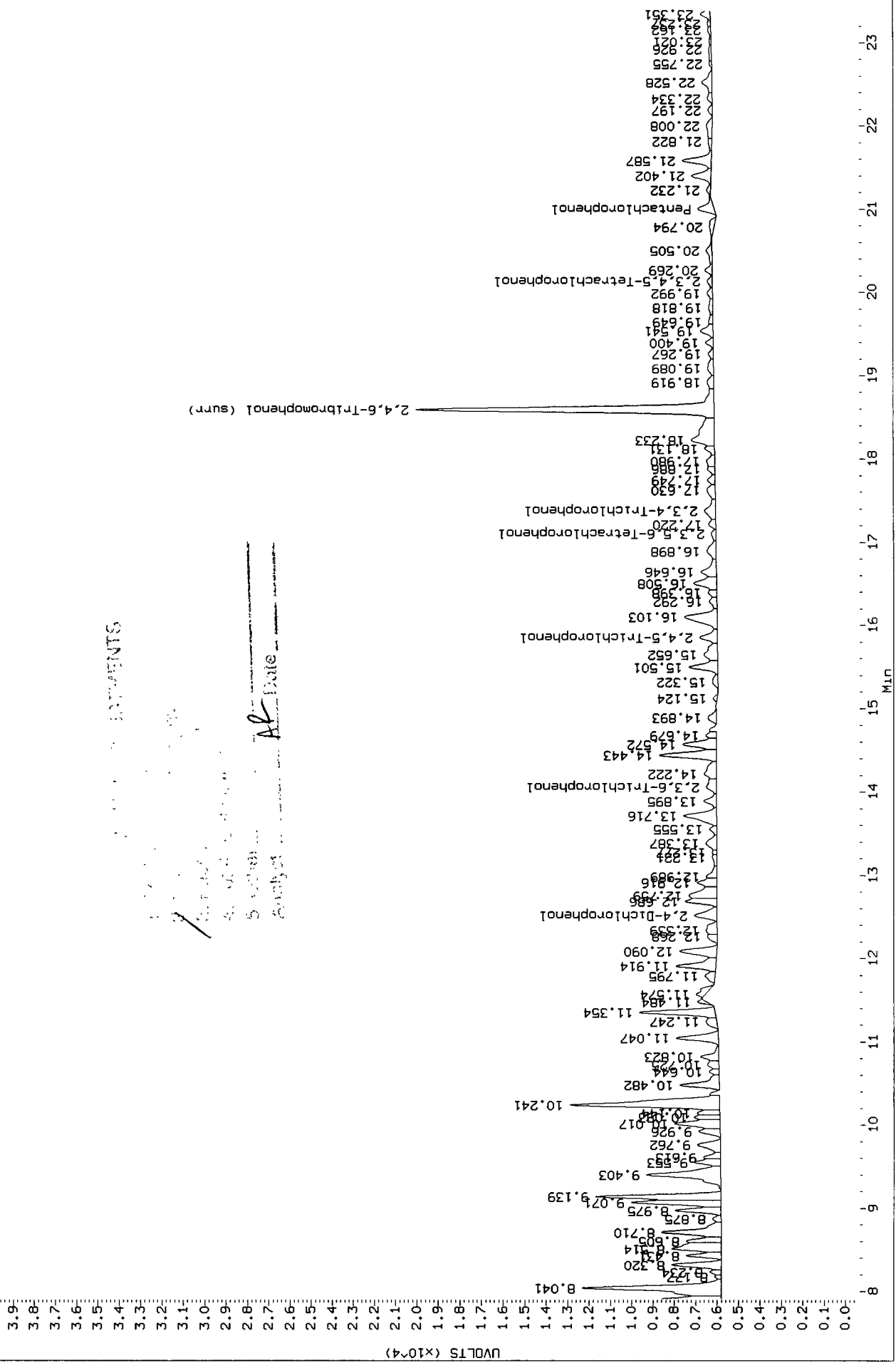
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 Injection Date: 05-MAY-2011 12:18
 Instrument: ecdl.i
 Client Sample ID: LL-SB6-2-4-041811

AIA 0504A046.cdf: 10.929 to 26.404 Min



Data File: /chem2/ecd1.i/PCP20110504.b/0504-1.b/0504A046.d/0504A046.cdf
 Injection Date: 05-MAY-2011 12:18
 Instrument: ecd1.i
 Client Sample ID: LL-SB6-2-4-041811

AIA 0504A046.cdf: 7.914 to 23.389 Min



1. Name of the compound
 2. Molecular weight
 3. Structure of the compound
 4. Name of the analyst
 5. Date

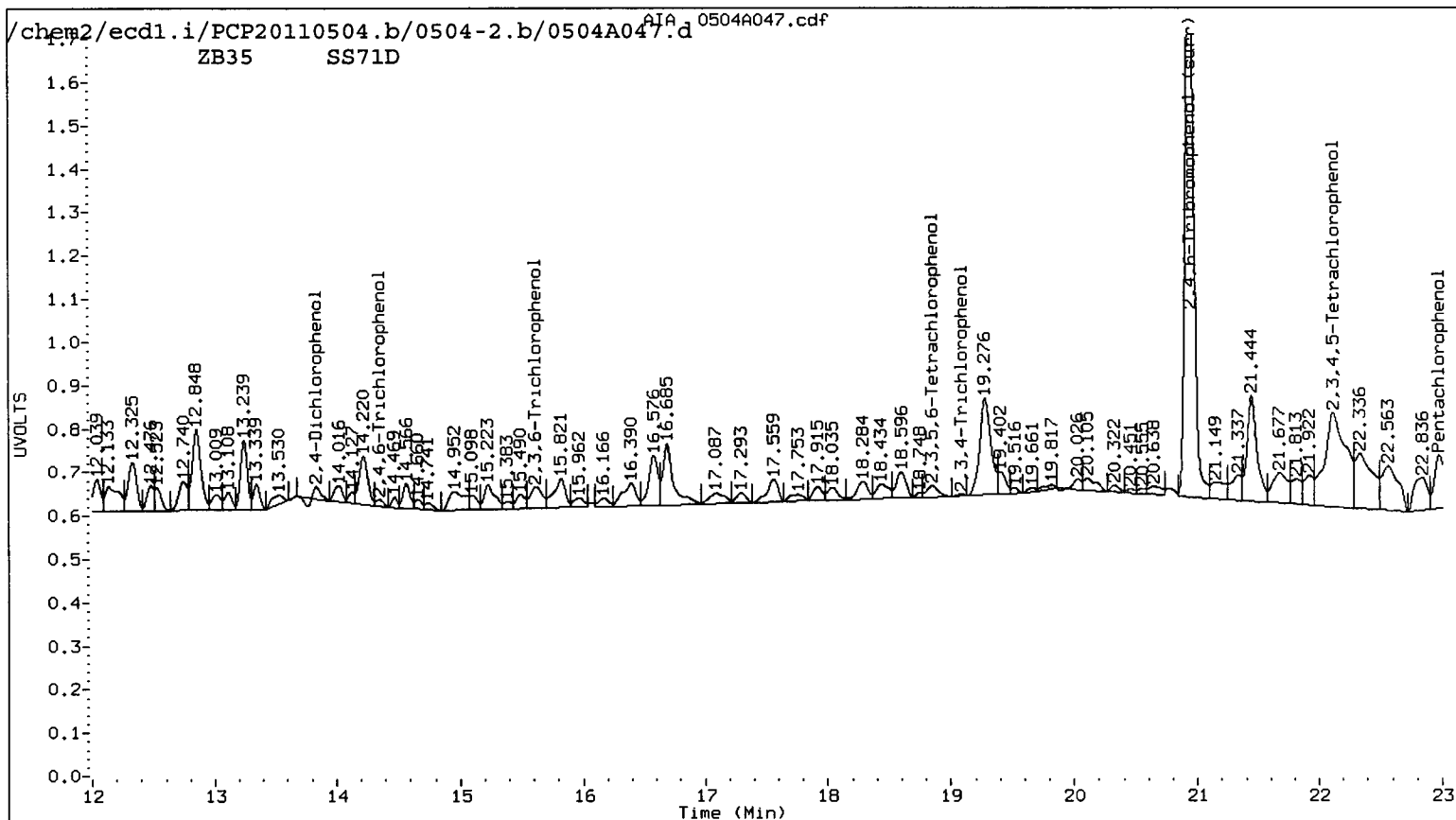
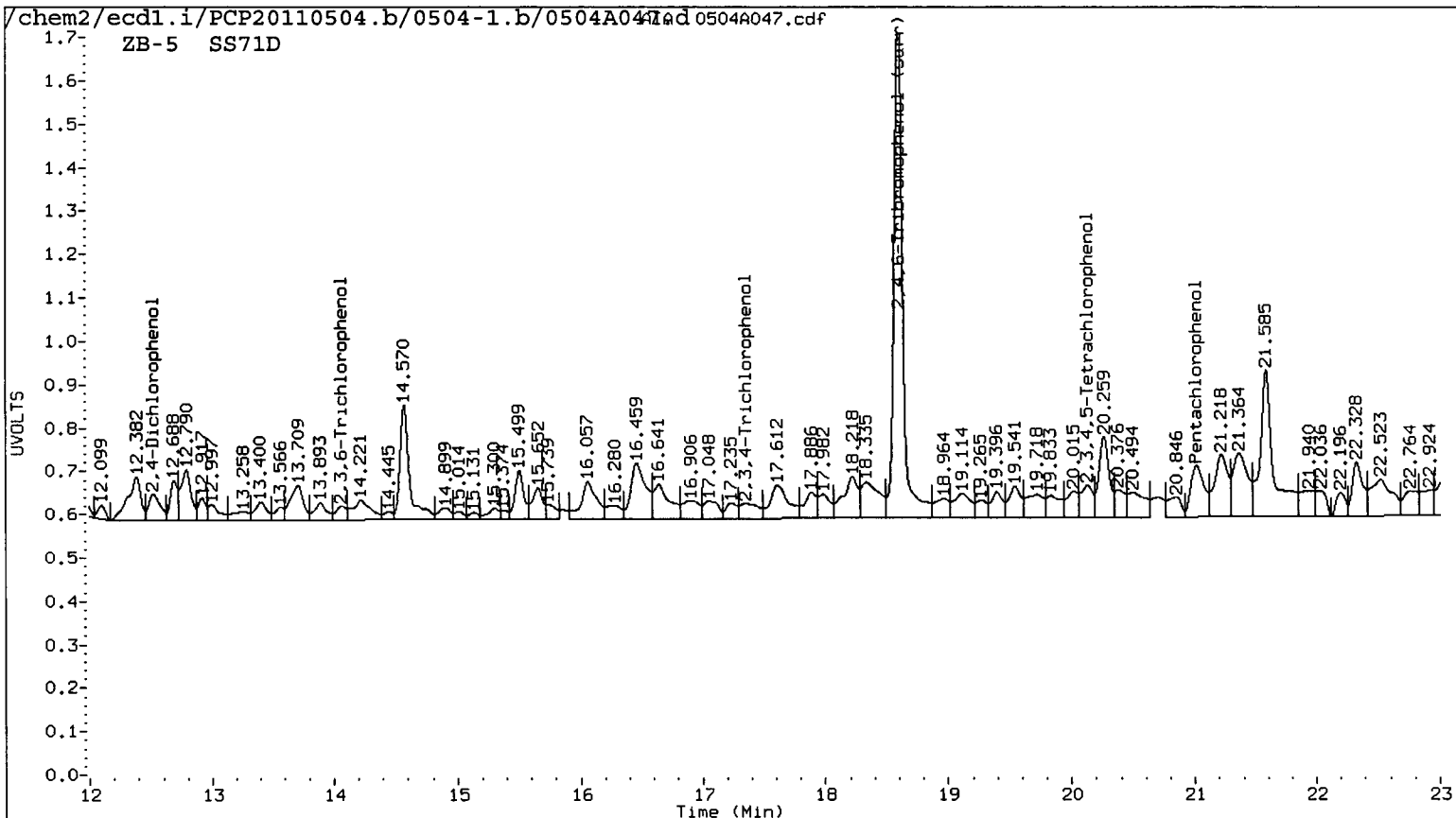
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

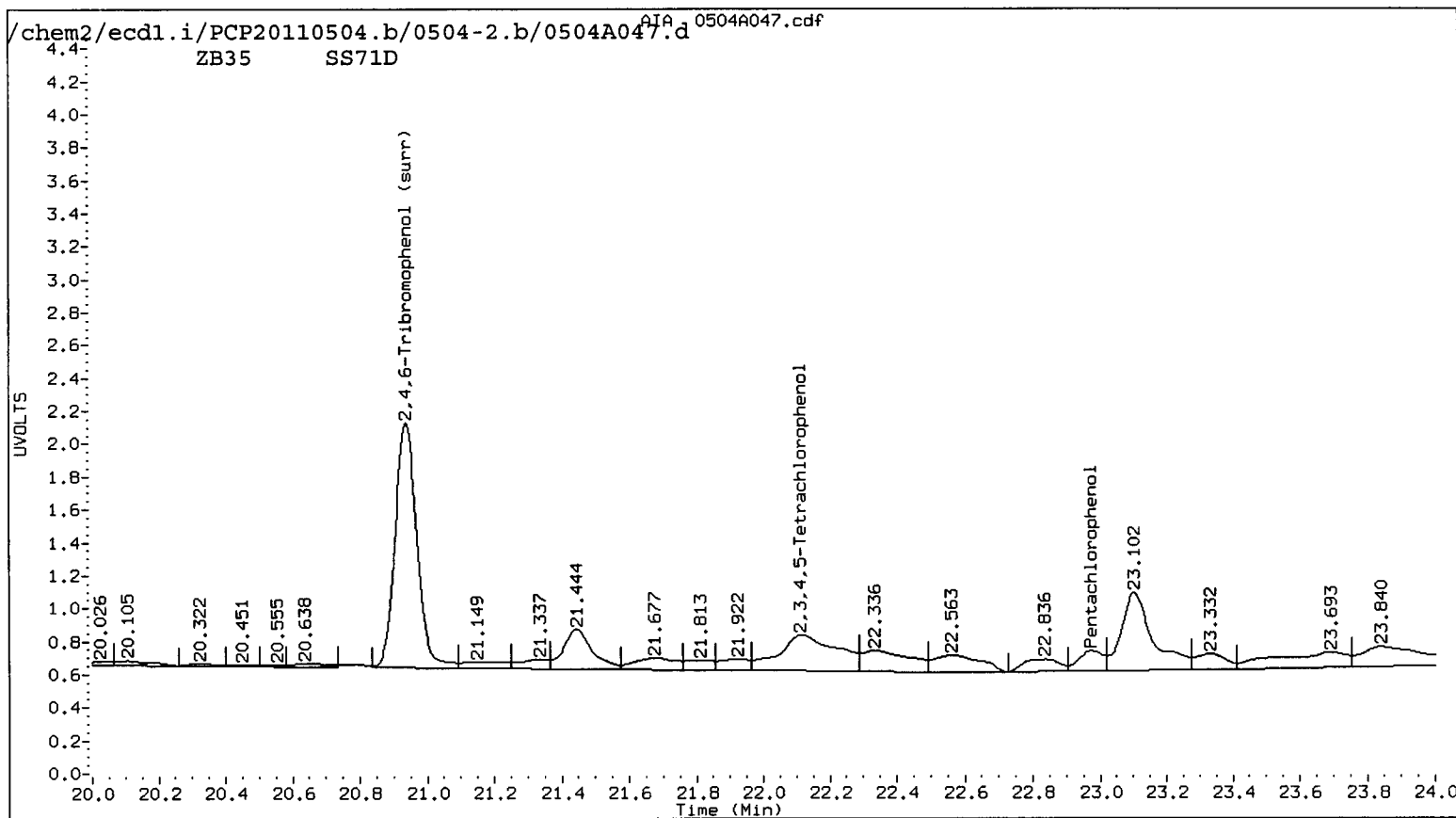
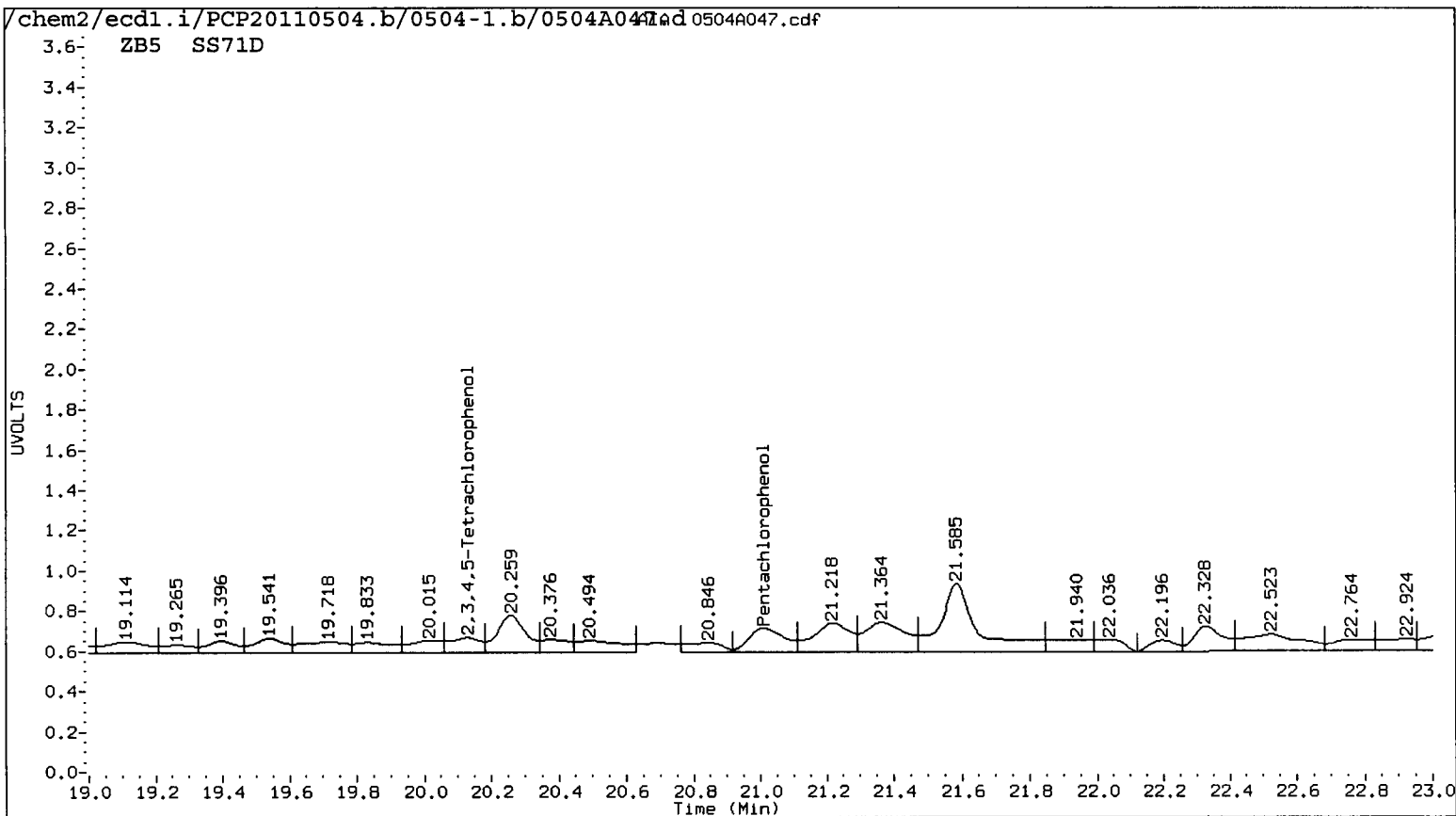
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A047.d Client ID: LL-SB5-0-0.5-041811
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 12:54
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.011	0.014	44136	22.975	0.008	31603	2.1905	1.1222 ^{il}	64.5*	Pentachlorophenol
----			14.347	0.036	2882	0.0000	0.1989	---	2,4,6-Trichlorophenol
14.063	-0.034	9325	15.611	0.054	16667	0.8143	1.1596	35.0	2,3,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,4,5-Trichlorophenol
17.346	-0.005	18162	19.083	0.060	752	2.1737	0.0717	187.2*	2,3,4-Trichlorophenol
----			18.848	0.034	8354	0.0000	0.3808	---	2,3,5,6-Tetrachlorophenol
20.129	-0.026	23478	22.114	0.034	133622	1.8086	8.1285/	127.2*	2,3,4,5-Tetrachlorophenol
12.520	-0.035	19788	13.834	0.014	2669	25.0939	3.0140/	157.1*	2,4-Dichlorophenol
18.597	0.001	292870	20.937	0.001	333898	18.6	15.9	15.8	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	74.4	63.5





Data File: /chem2/ecd1.i/PCP20110504.b/0504-2.b/0504A047.d

Date : 05-MAY-2011 12:54

Client ID: LL-SB5-0-0.5-041811

Sample Info: SS71D

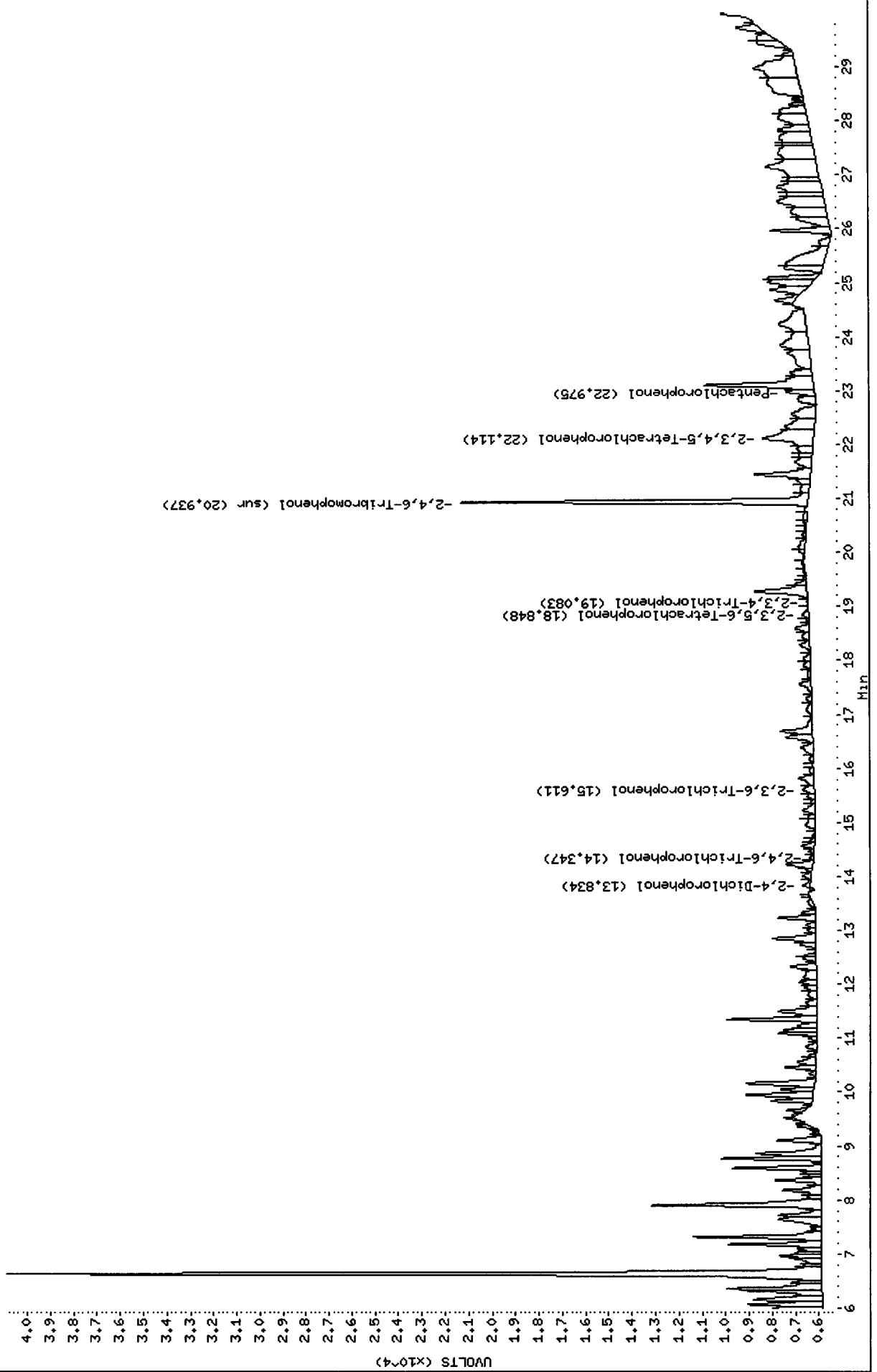
Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

/chem2/ecd1.i/PCP20110504.b/0504-2.b/0504A047.d/0504A047.cdf



Data File: /chem2/ecd1.i/PCP20110504.b/0504-1.b/0504A047.d

Date : 05-MAY-2011 12:54

Client ID: LL-SB5-0-0.5-041811

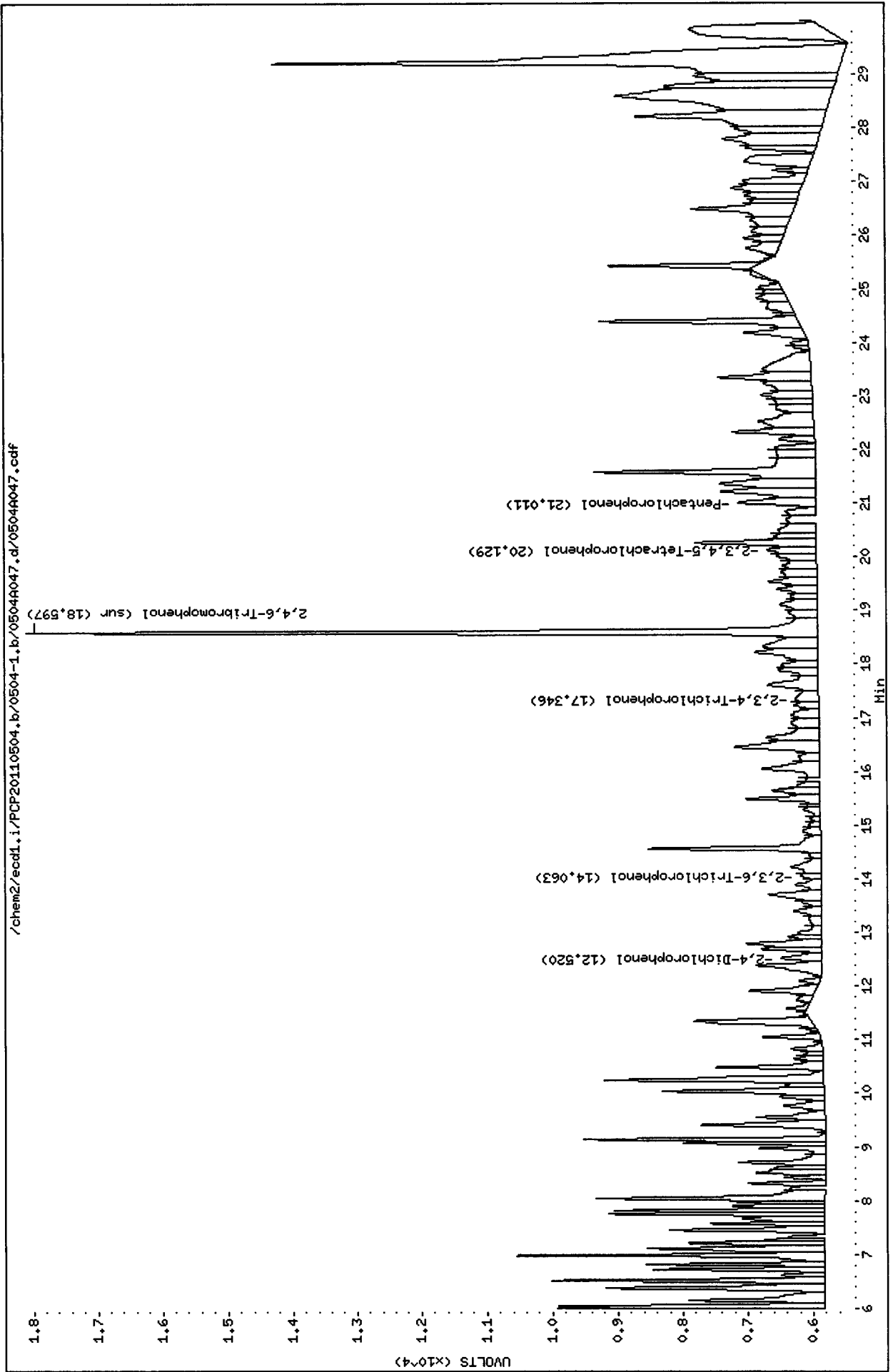
Sample Info: SS71D

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



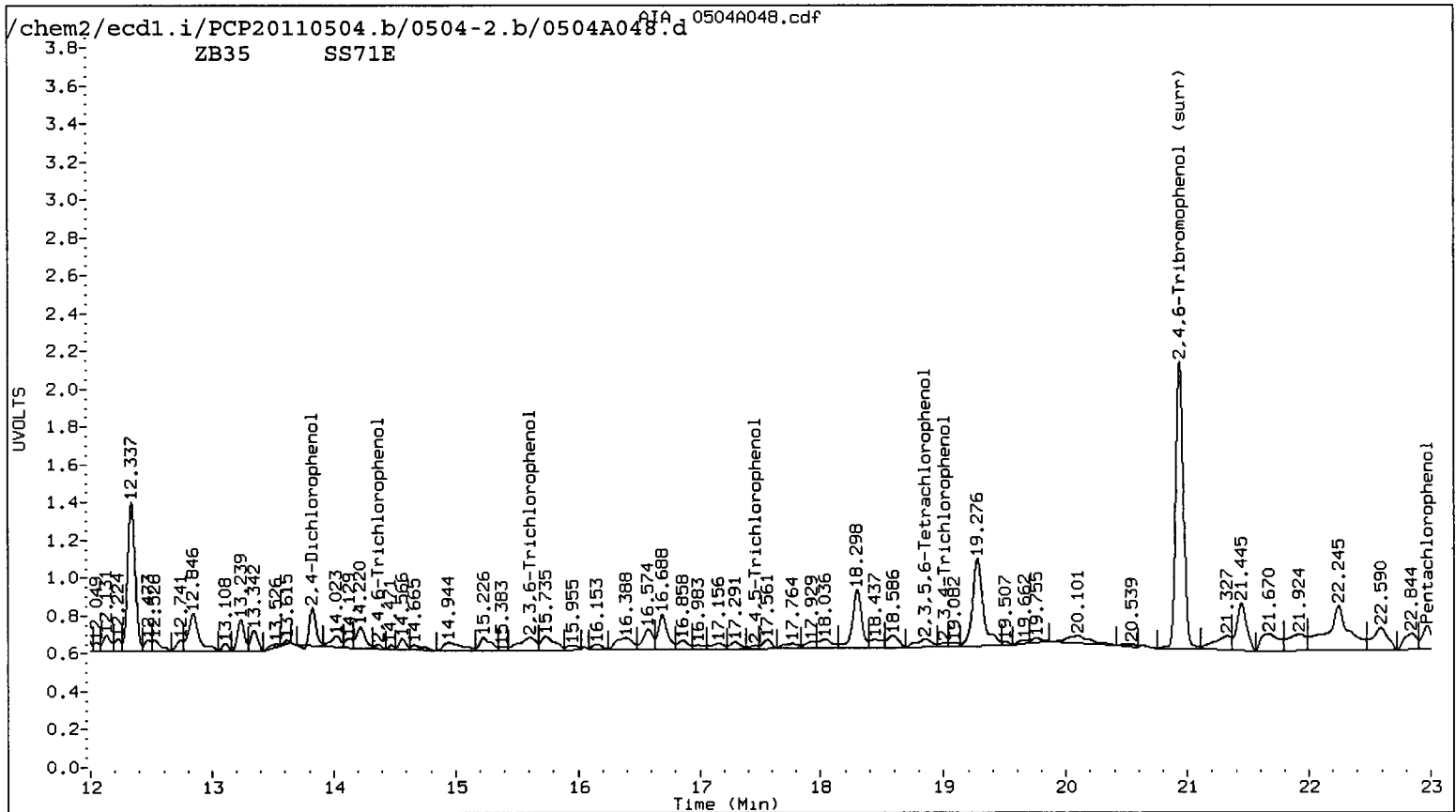
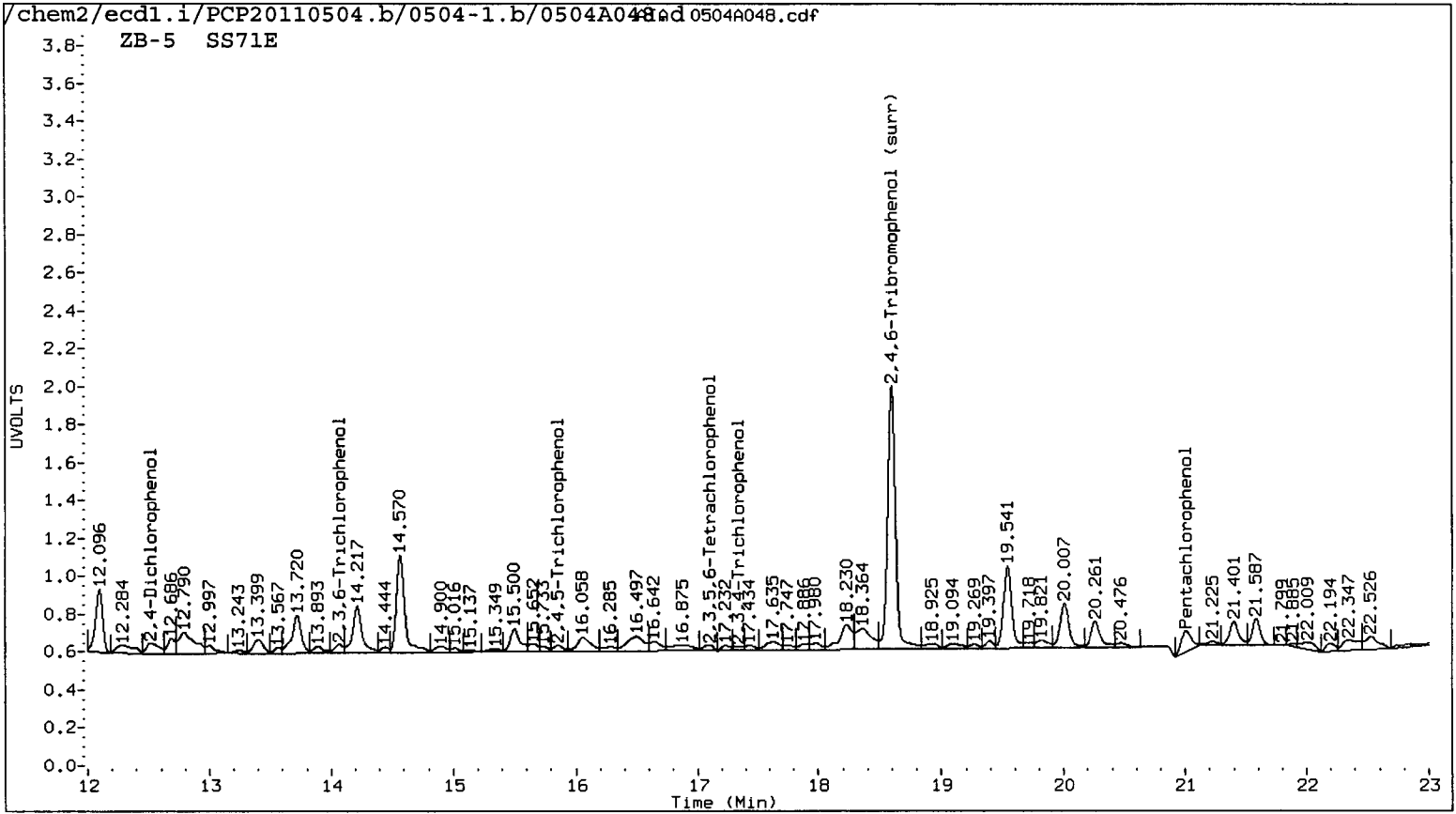
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

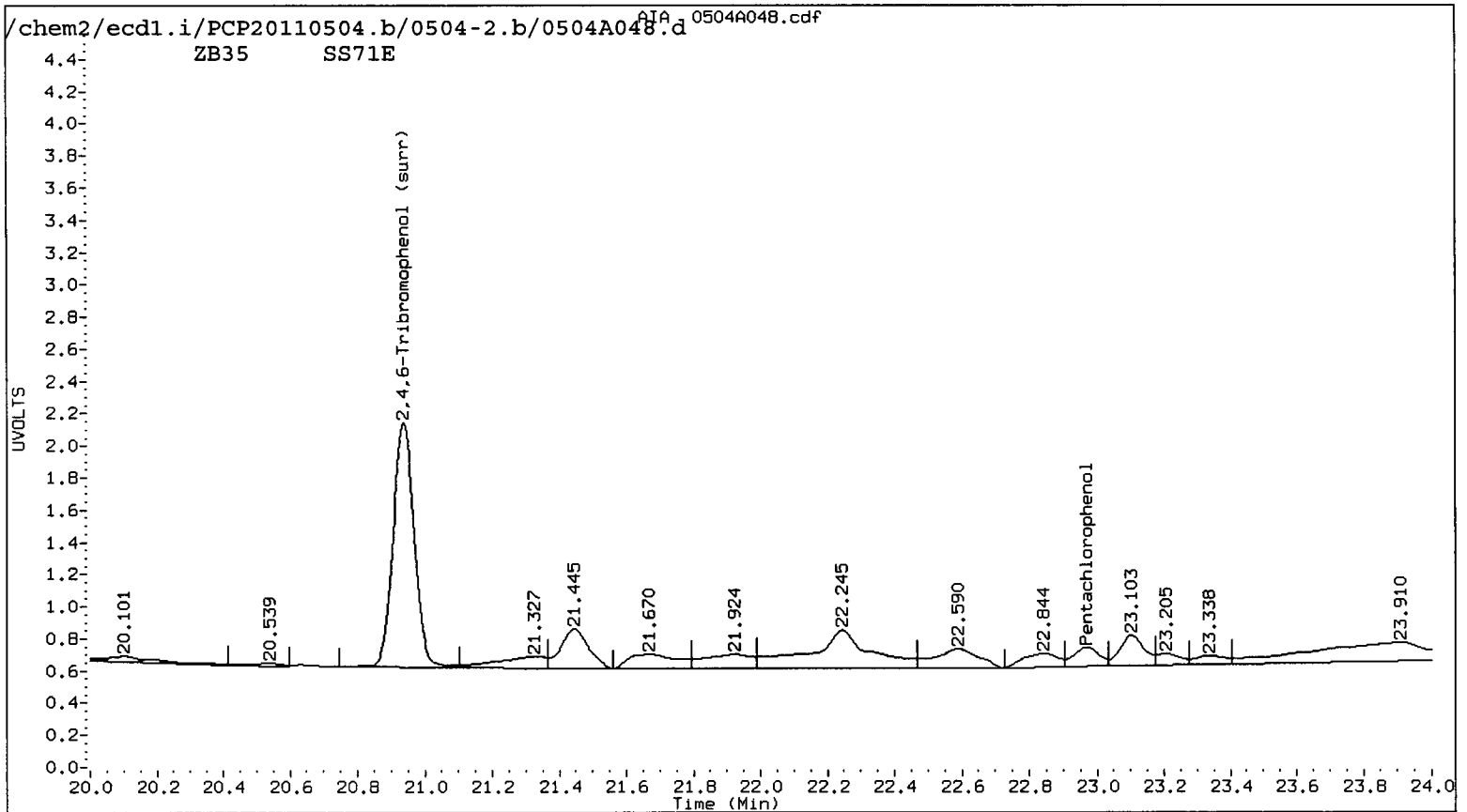
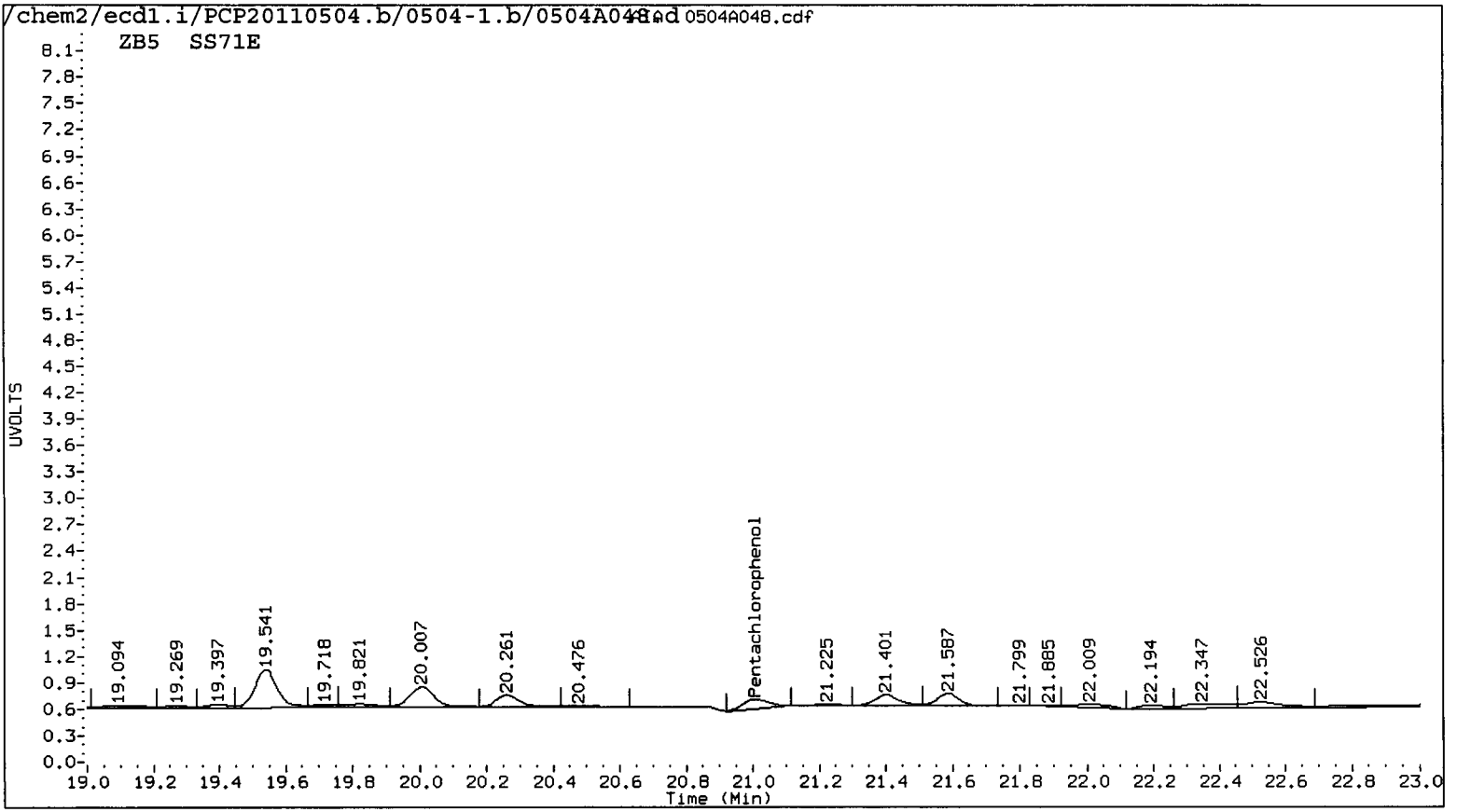
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 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 13:30
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.008	0.011	29611	22.969	0.002	32008	1.4696	1.1366	25.6	Pentachlorophenol
----			14.366	0.055	4079	0.0000	0.2815	---	2,4,6-Trichlorophenol
14.066	-0.031	11799	15.604	0.047	31534	1.0302	2.1940	72.2*	2,3,6-Trichlorophenol
15.854	0.009	8612	17.465	-0.009	4757	1.1249	0.5877	62.7*	2,4,5-Trichlorophenol
17.343	-0.009	5695	19.008	-0.015	4089	0.6816	0.3903	54.4*	2,3,4-Trichlorophenol
17.100	-0.052	8254	18.851	0.037	17738	0.4882	0.8086	49.4*	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.518	-0.037	19830	13.825	0.005	38256	25.1476	45.5295	57.7*	2,4-Dichlorophenol
18.597	0.002	313529	20.938	0.002	333978	19.9	15.9	22.5	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	79.7	63.5





SS71:01124

Data File: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A048.d

Date : 05-MAY-2011 13:30

Client ID: LL-SB5-1.5-2-041811

Sample Info: SS71E

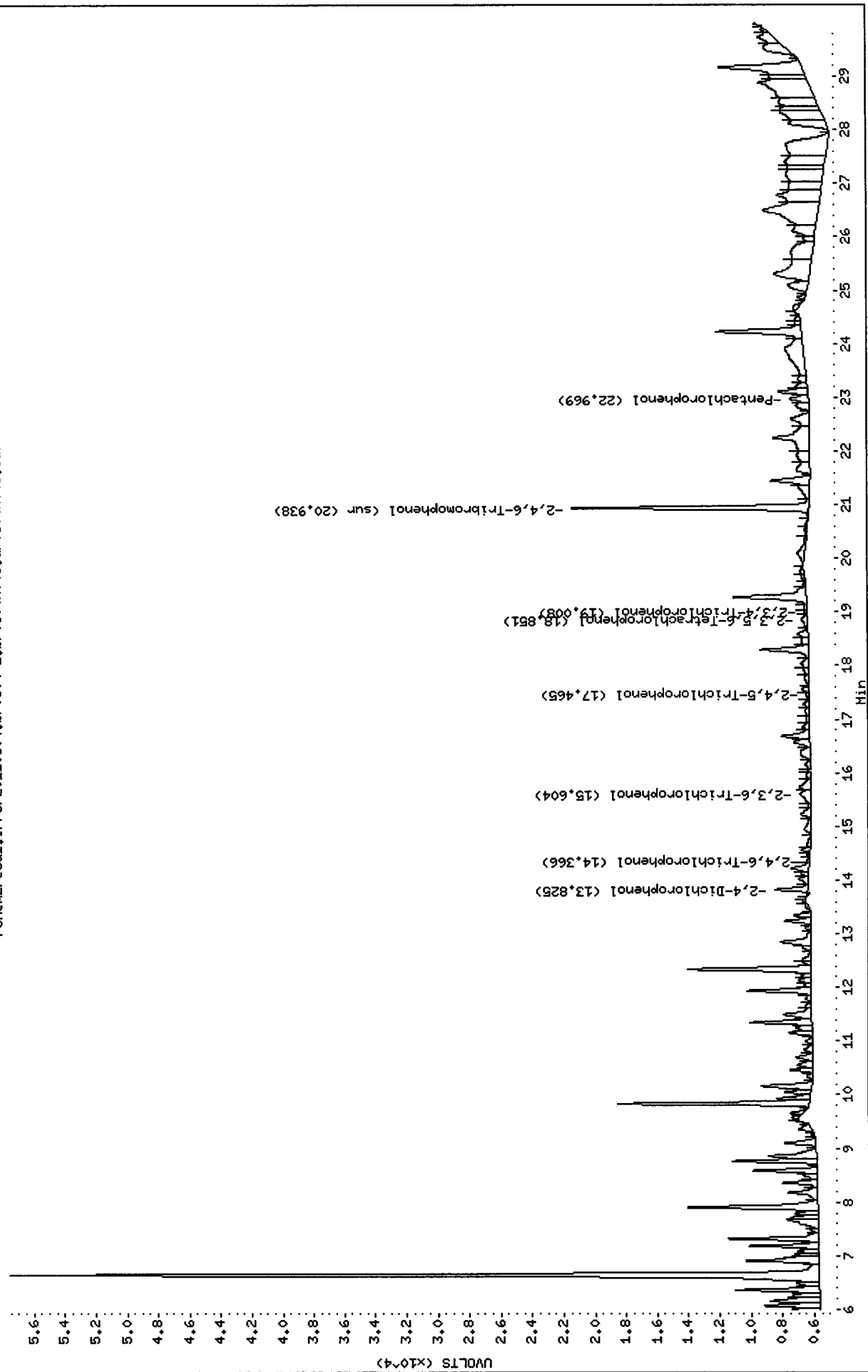
Instrument: ecdl.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

/chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A048.d/0504A048.cdf



Data File: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A048.d

Date : 05-MAY-2011 13:30

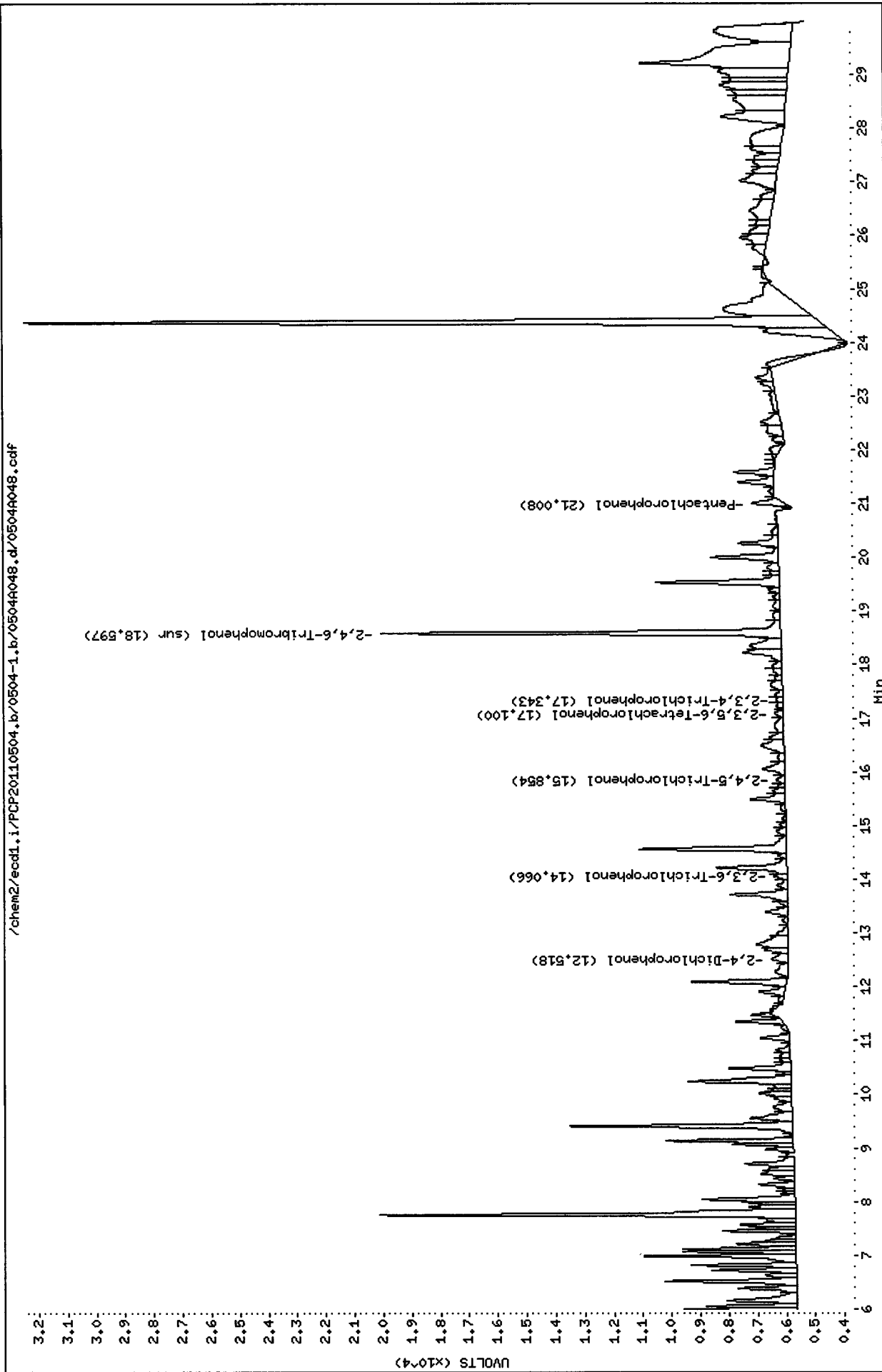
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Sample Info: SS71E

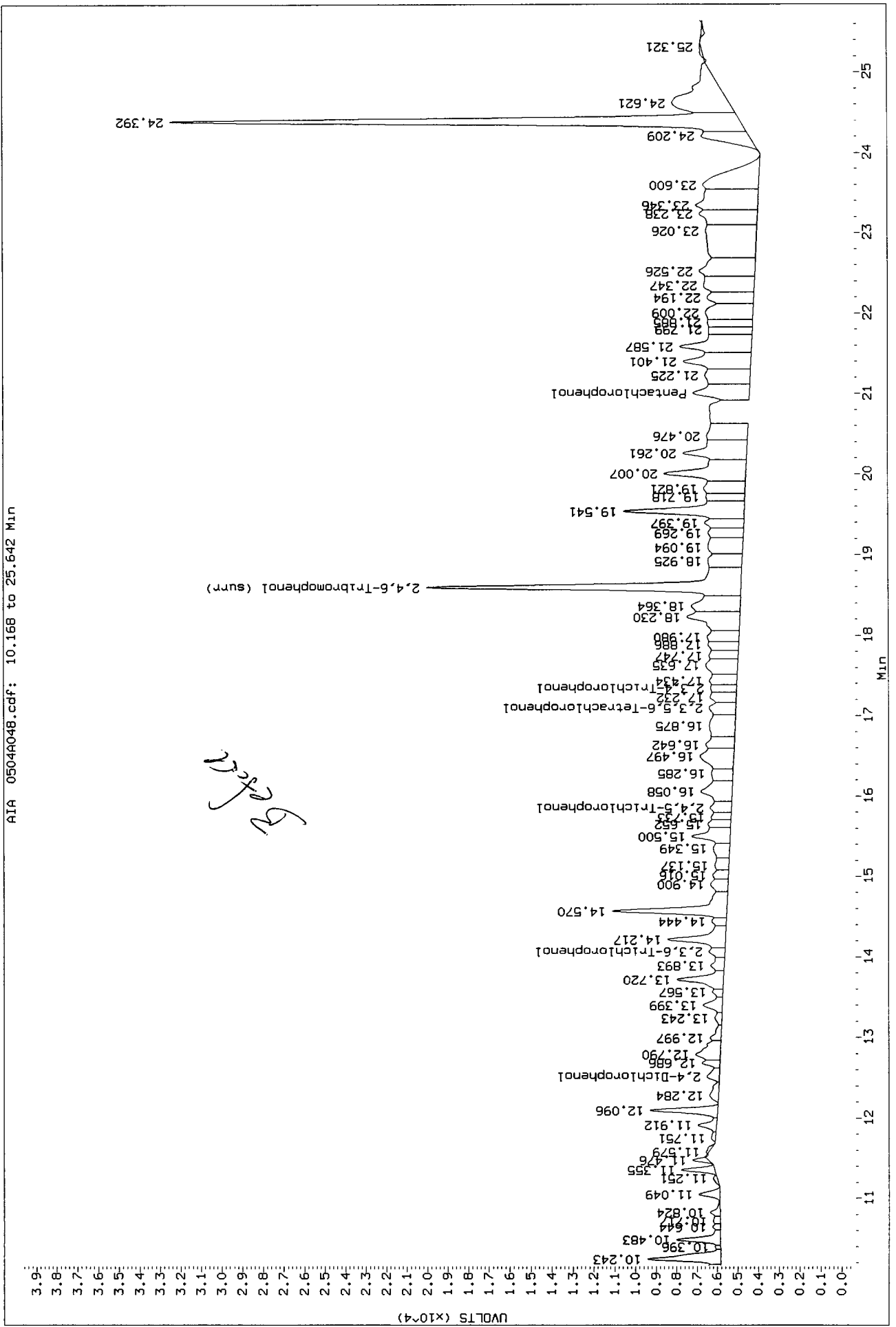
Instrument: ecdl.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP1

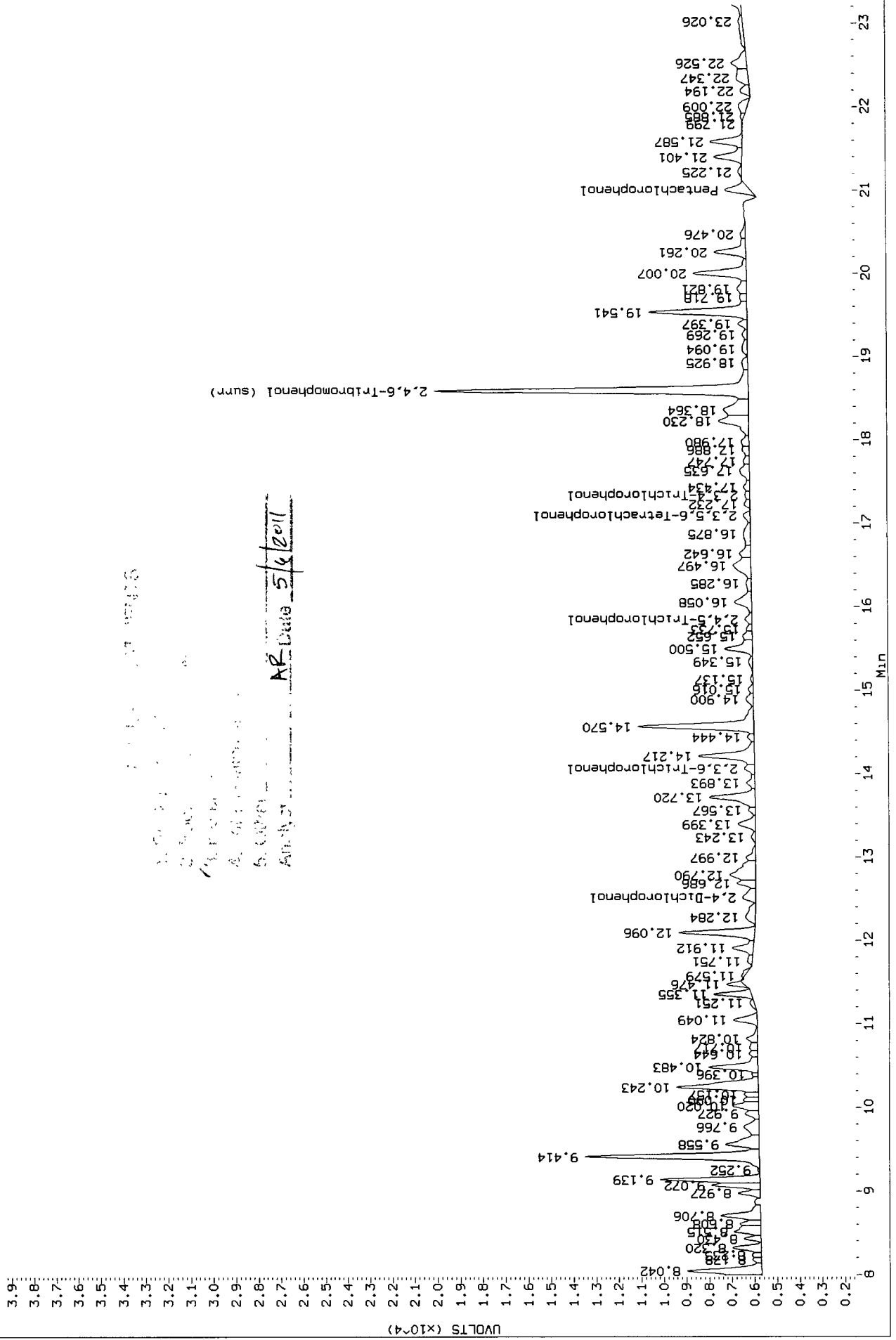


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 Injection Date: 05-MAY-2011 13:30
 Instrument: ecdl.i
 Client Sample ID: LL-SB5-1.5-2-041811



Data File: /chem2/ecdd1.i/PCP20110504.b/0504-1.b/0504A048.d/0504A048.cdf
Injection Date: 05-MAY-2011 13:30
Instrument: ecdd1.i
Client Sample ID: LL-SB5-1.5-2-041811

AIA 0504A048.cdf: 7.987 to 23.223 Min



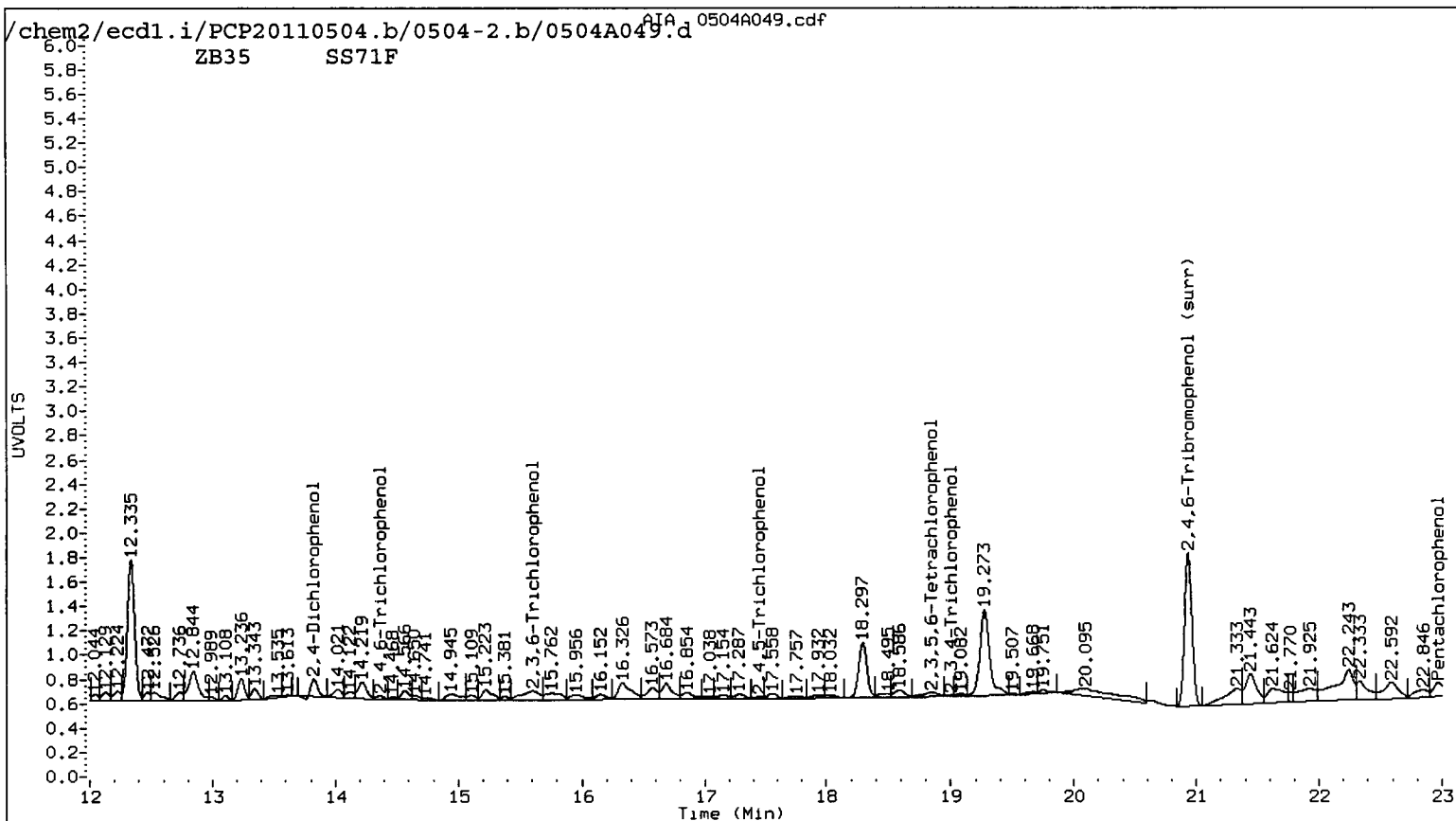
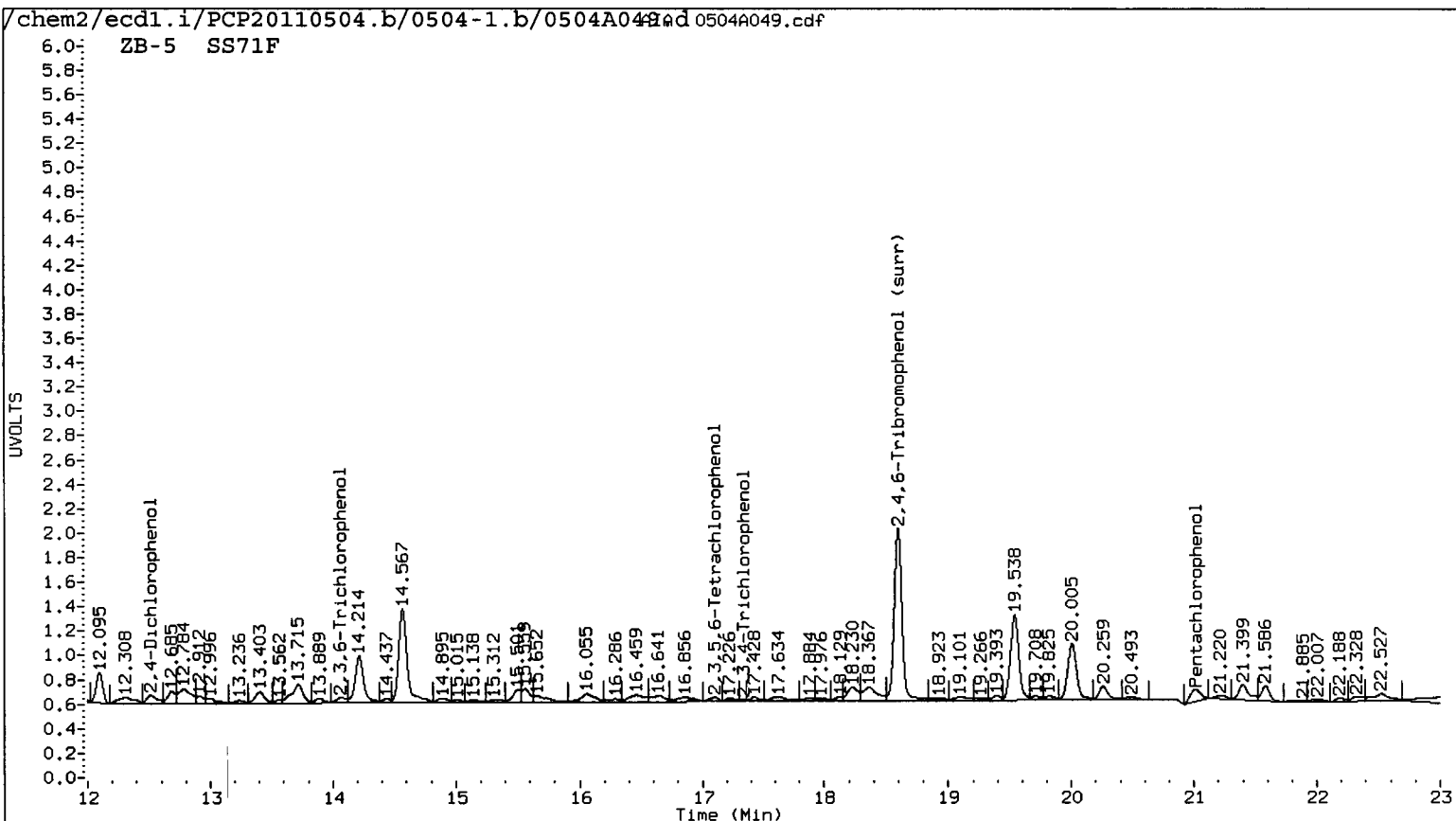
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

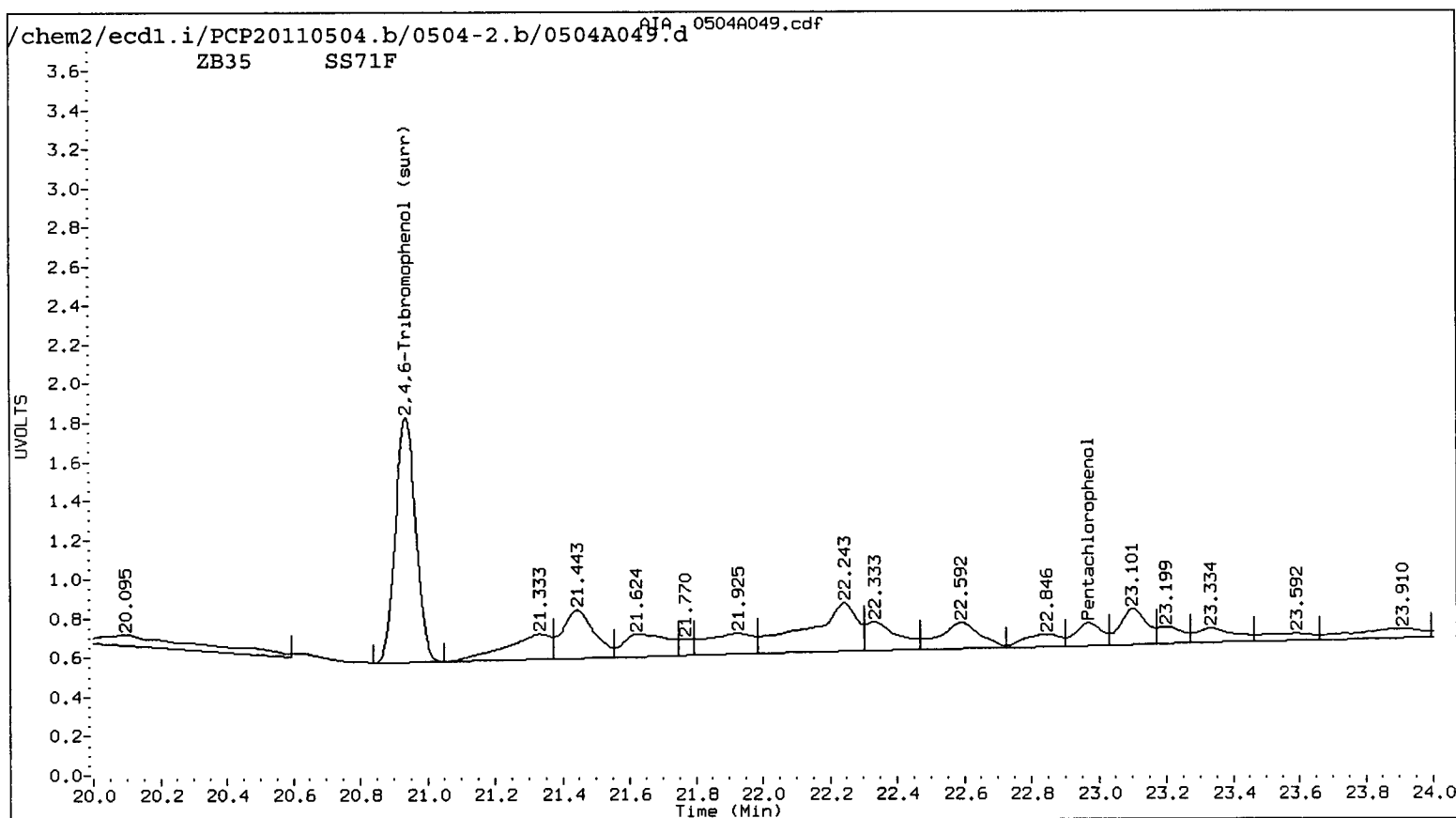
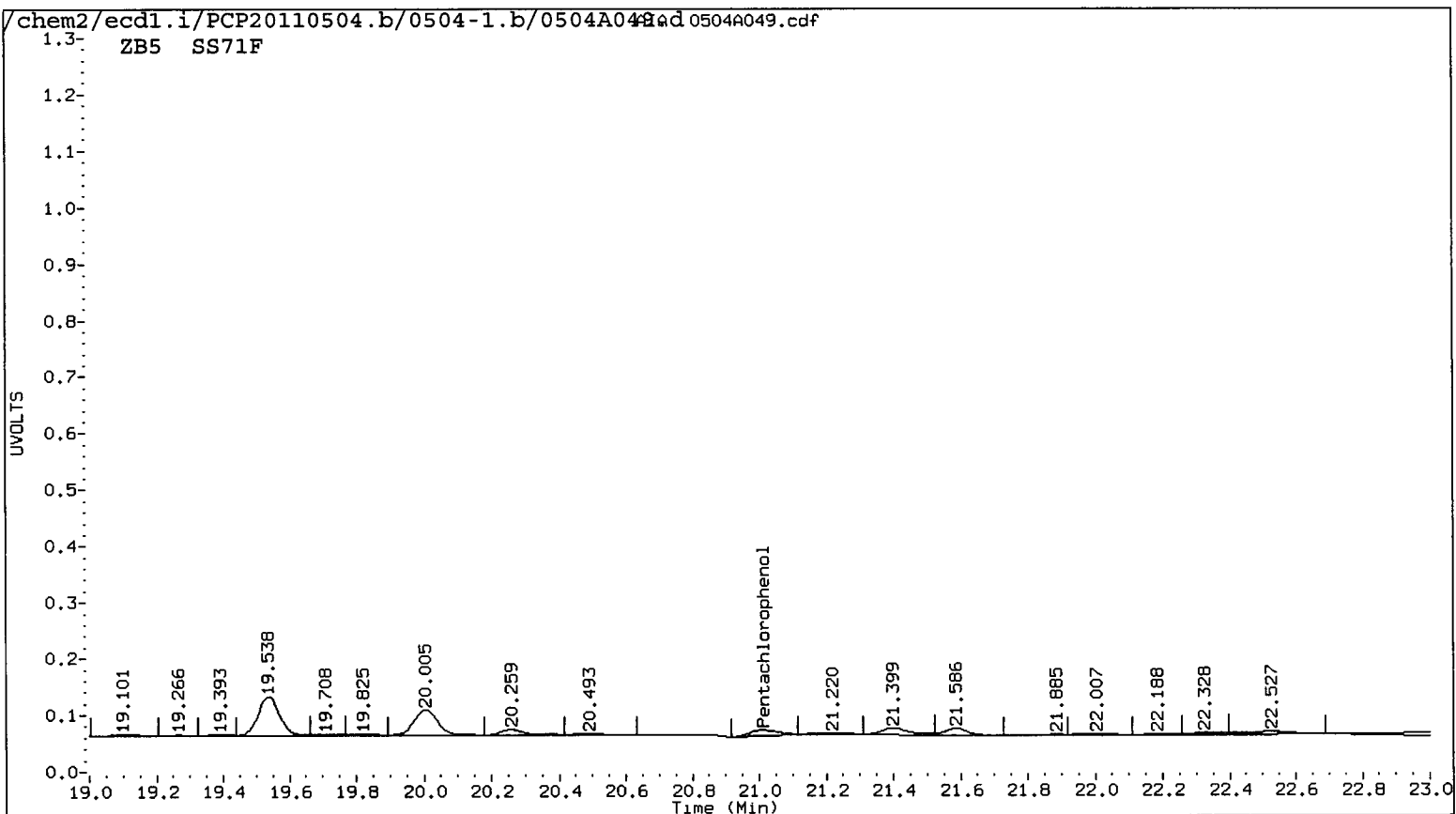
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A049.d Client ID: LL-SB5-2-4-041811
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 14:07
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.012	0.015	26819	22.969	0.002	32135	1.3310	1.1411 ²	15.4	Pentachlorophenol
----			14.365	0.054	4814	0.0000	0.3322	---	2,4,6-Trichlorophenol
14.065	-0.032	11612	15.602	0.045	36834	1.0139	2.5627	86.6*	2,3,6-Trichlorophenol
----			17.453	-0.021	4172	0.0000	0.5154	---	2,4,5-Trichlorophenol
17.342	-0.009	2104	19.004	-0.019	3138	0.2518	0.2993	17.2	2,3,4-Trichlorophenol
17.101	-0.051	8607	18.848	0.034	15669	0.5091	0.7143	33.5	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.514	-0.041	19980	13.825	0.005	25979	25.3431	30.3712	18.0	2,4-Dichlorophenol
18.595	0.000	311674	20.936	0.000	260820	19.8	12.4	45.9*	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	79.2	49.6





Data File: /chem2/ecdl1.i/PCP20110504.b/0504-2.b/0504A049.d

Date : 05-MAY-2011 14:07

Client ID: LL-SB5-2-4-041811

Sample Info: SS71F

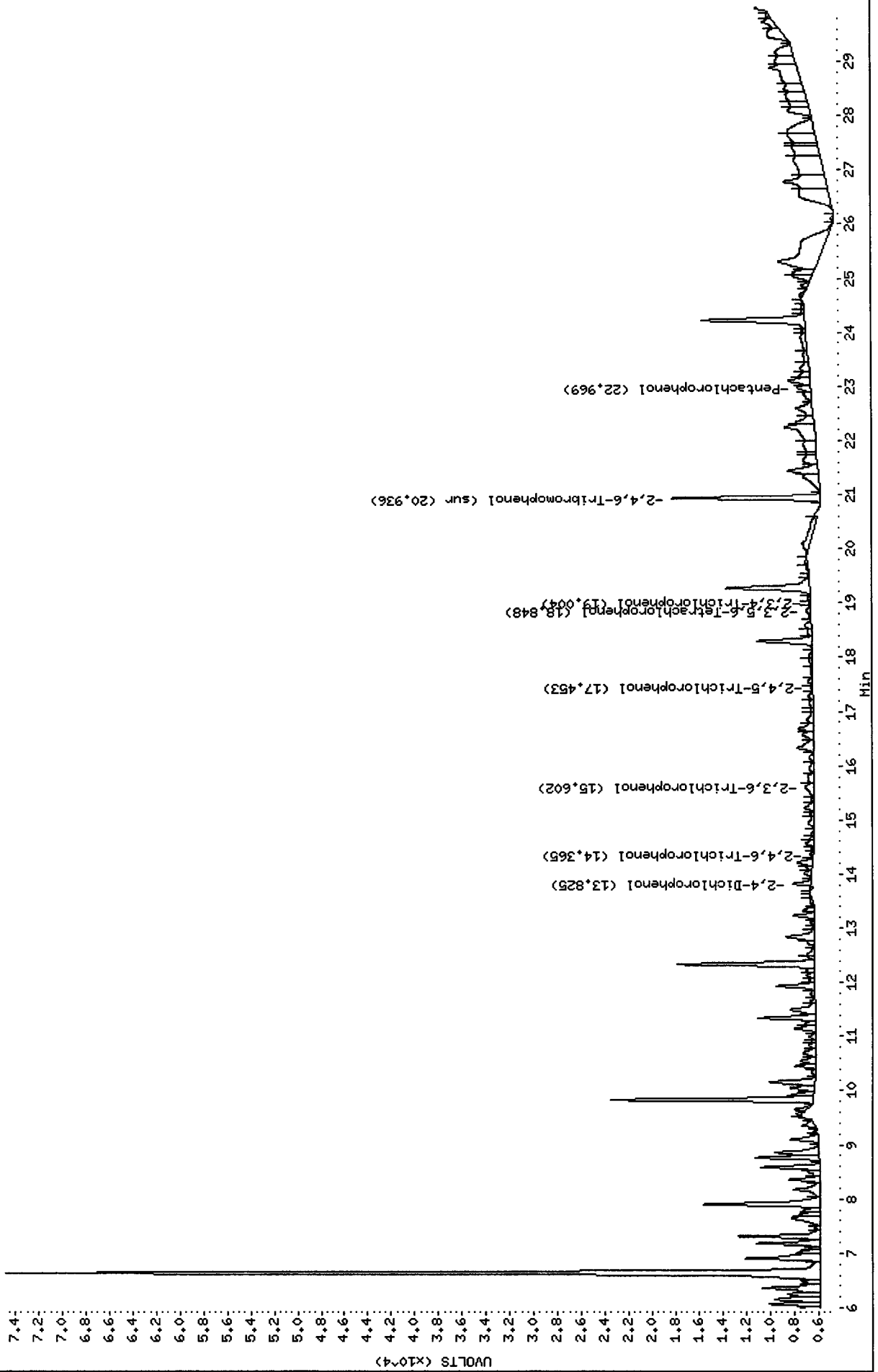
Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

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Data File: /chem2/ecd1.i/PCP20110504.b/0504-1.b/050404049.d

Date : 05-MAY-2011 14:07

Client ID: LL-SB5-2-4-041811

Sample Info: SS71F

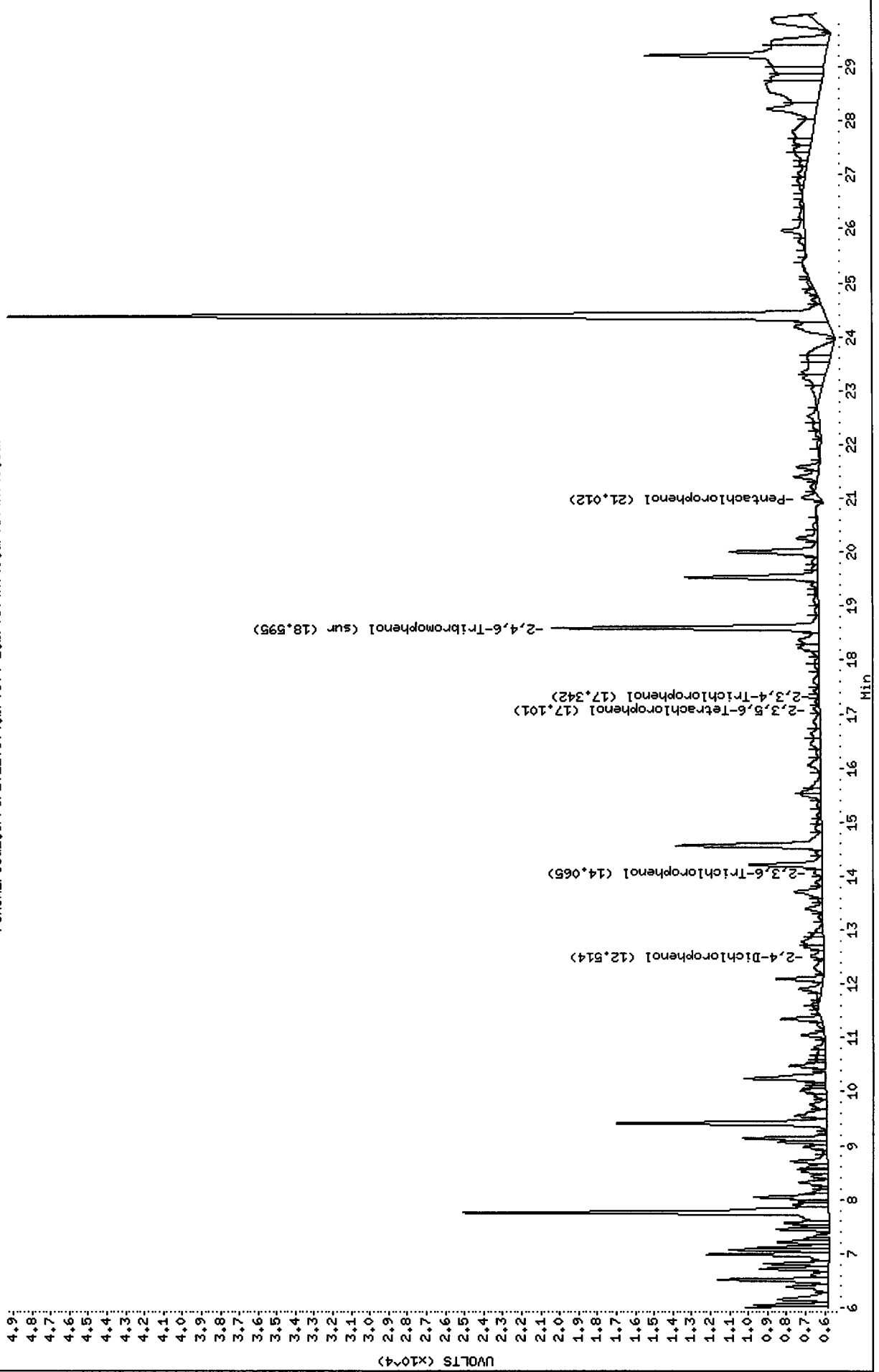
Instrument: ecd1.i

Operator: ar

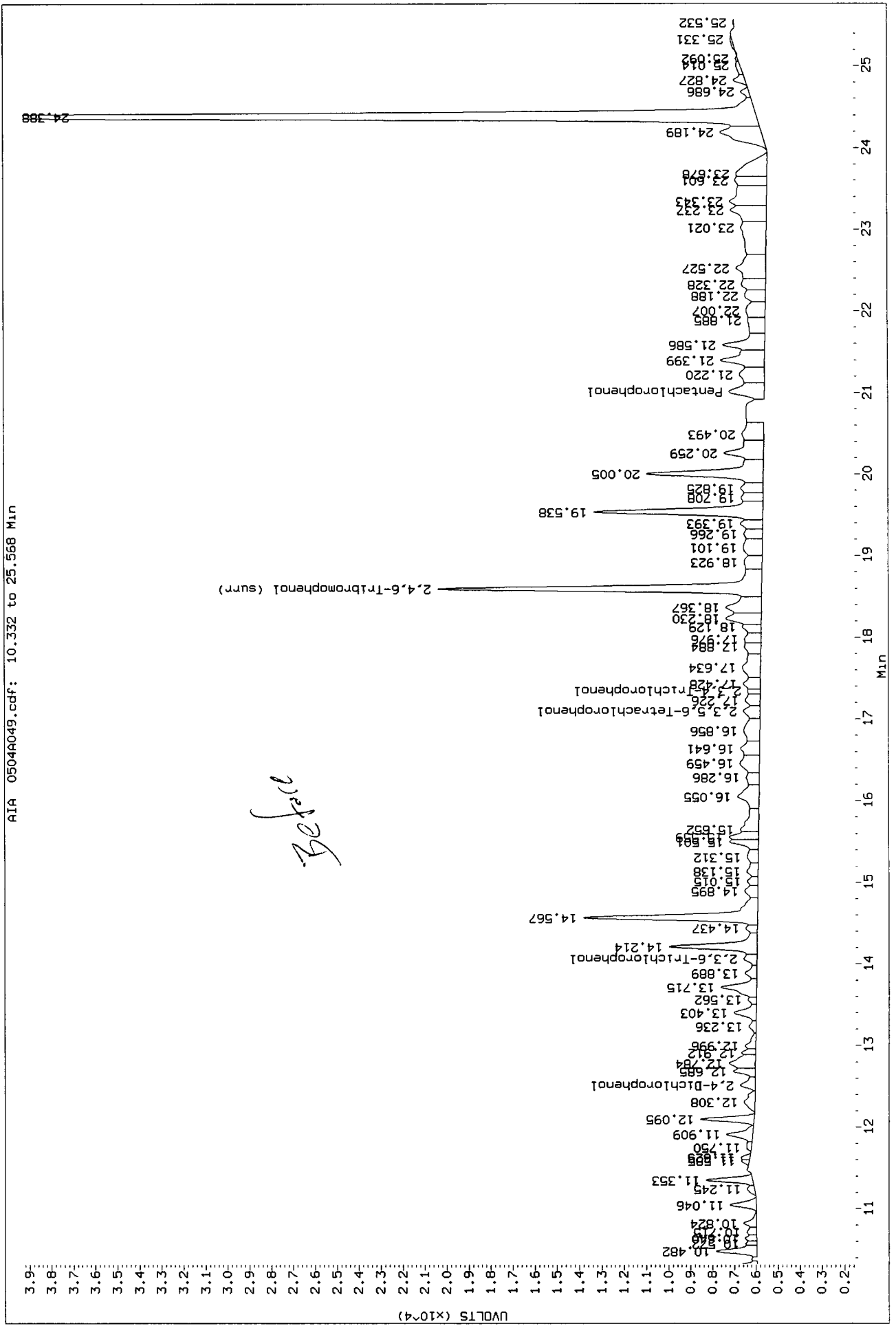
Column diameter: 0.53

Column phase: STX CLP1

/chem2/ecd1.i/PCP20110504.b/0504-1.b/050404049.d/050404049.cdf



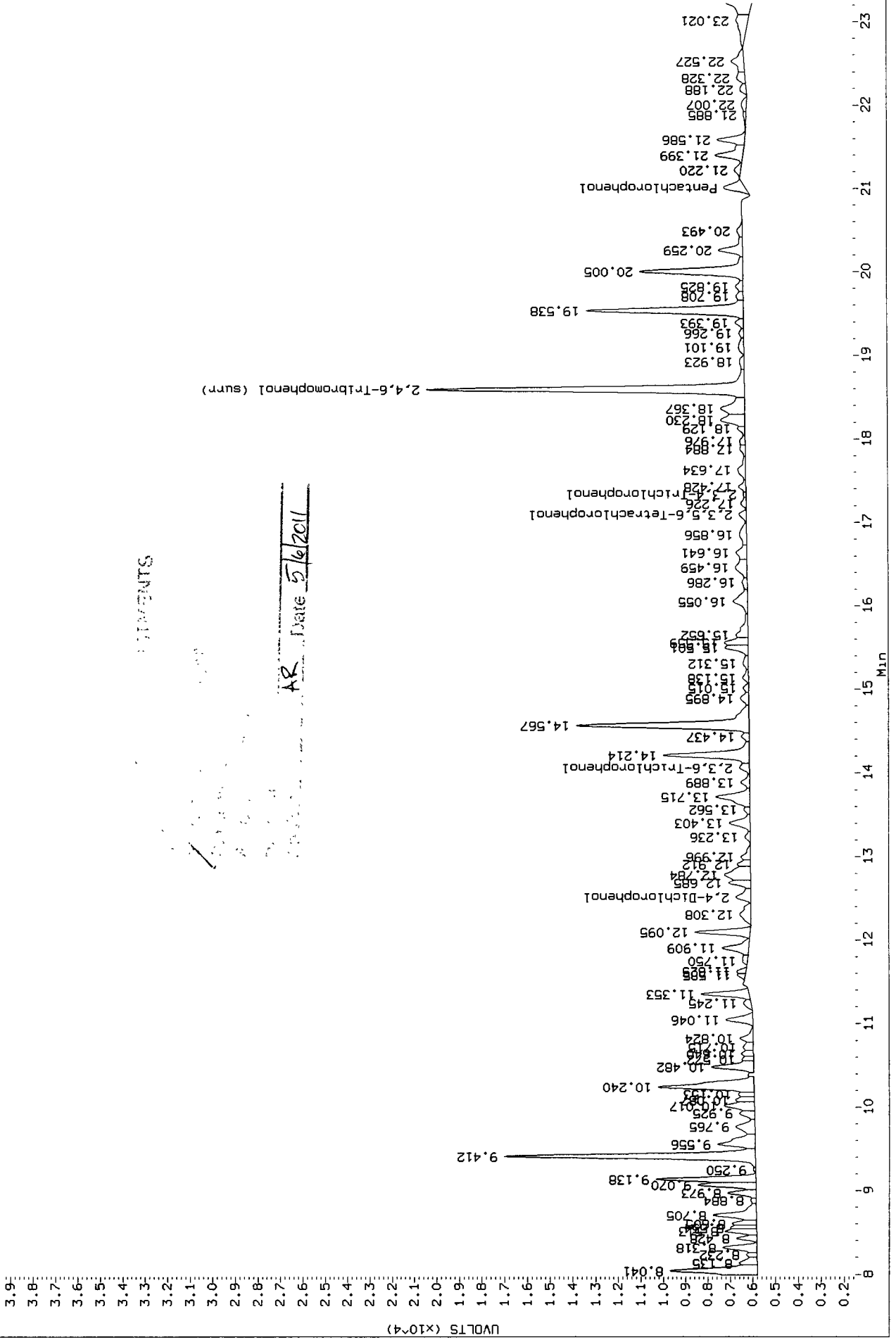
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 Injection Date: 05-MAY-2011 14:07
 Instrument: ecd1.i
 Client Sample ID: LL-SB5-2-4-041811



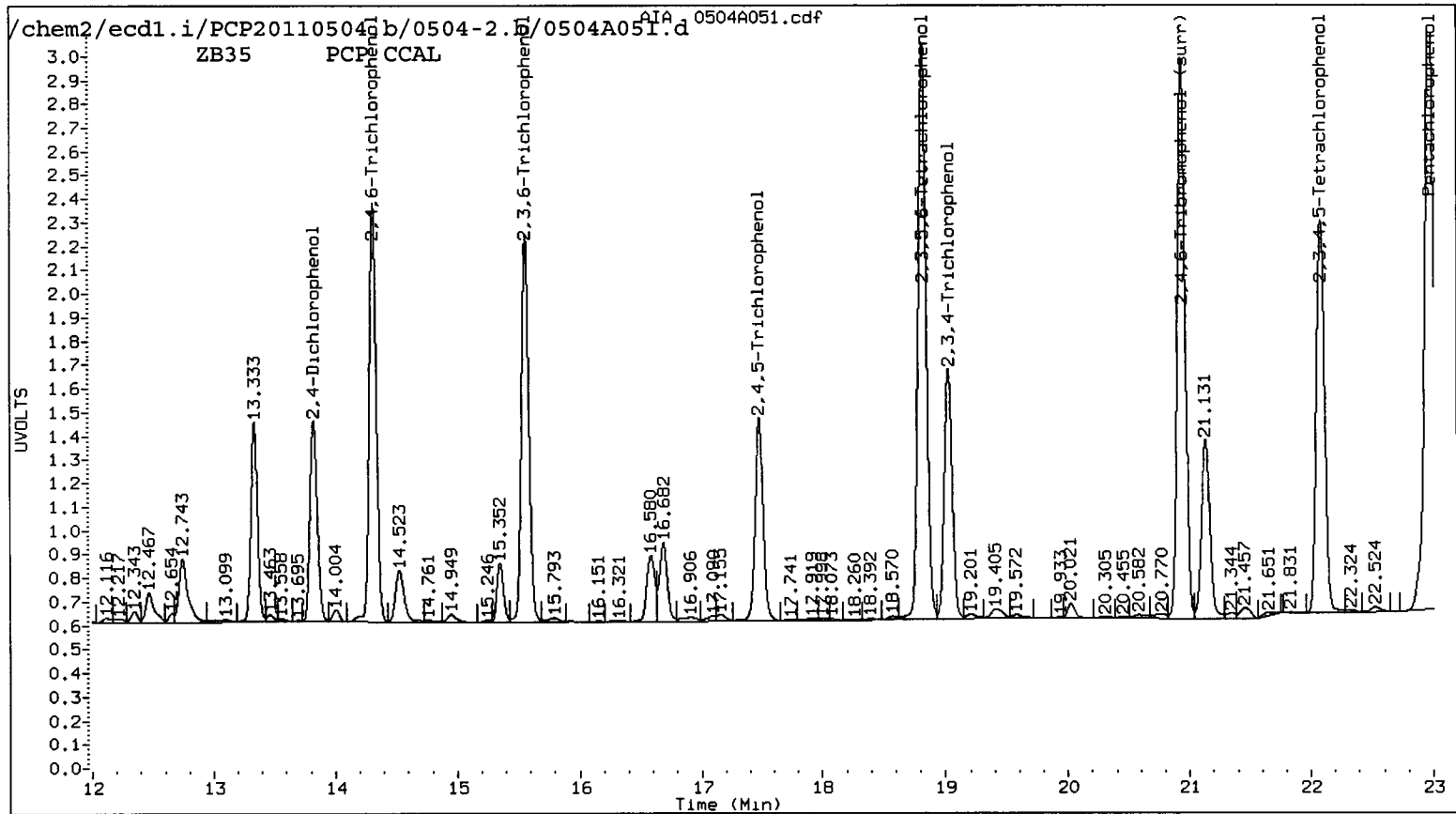
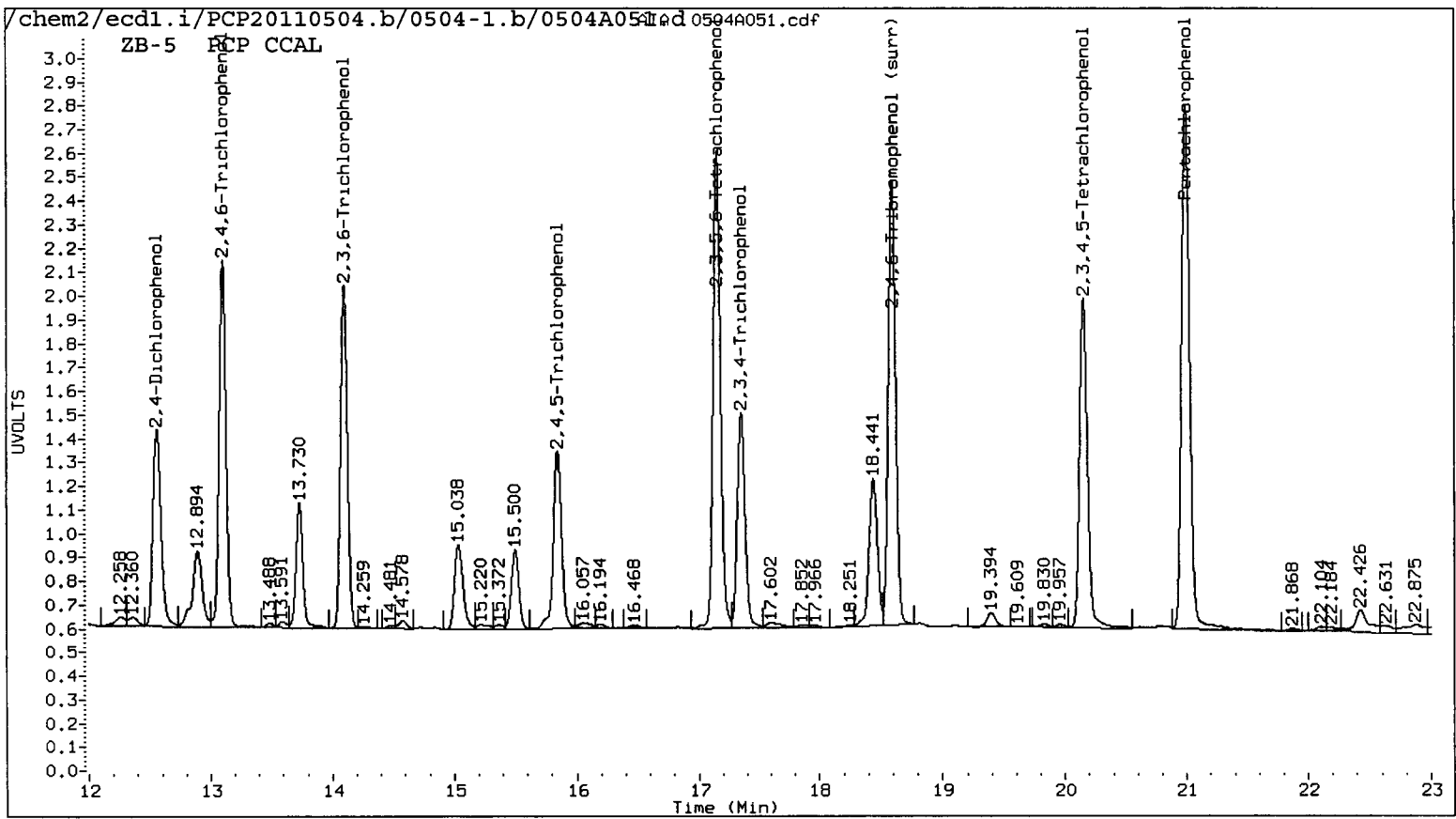
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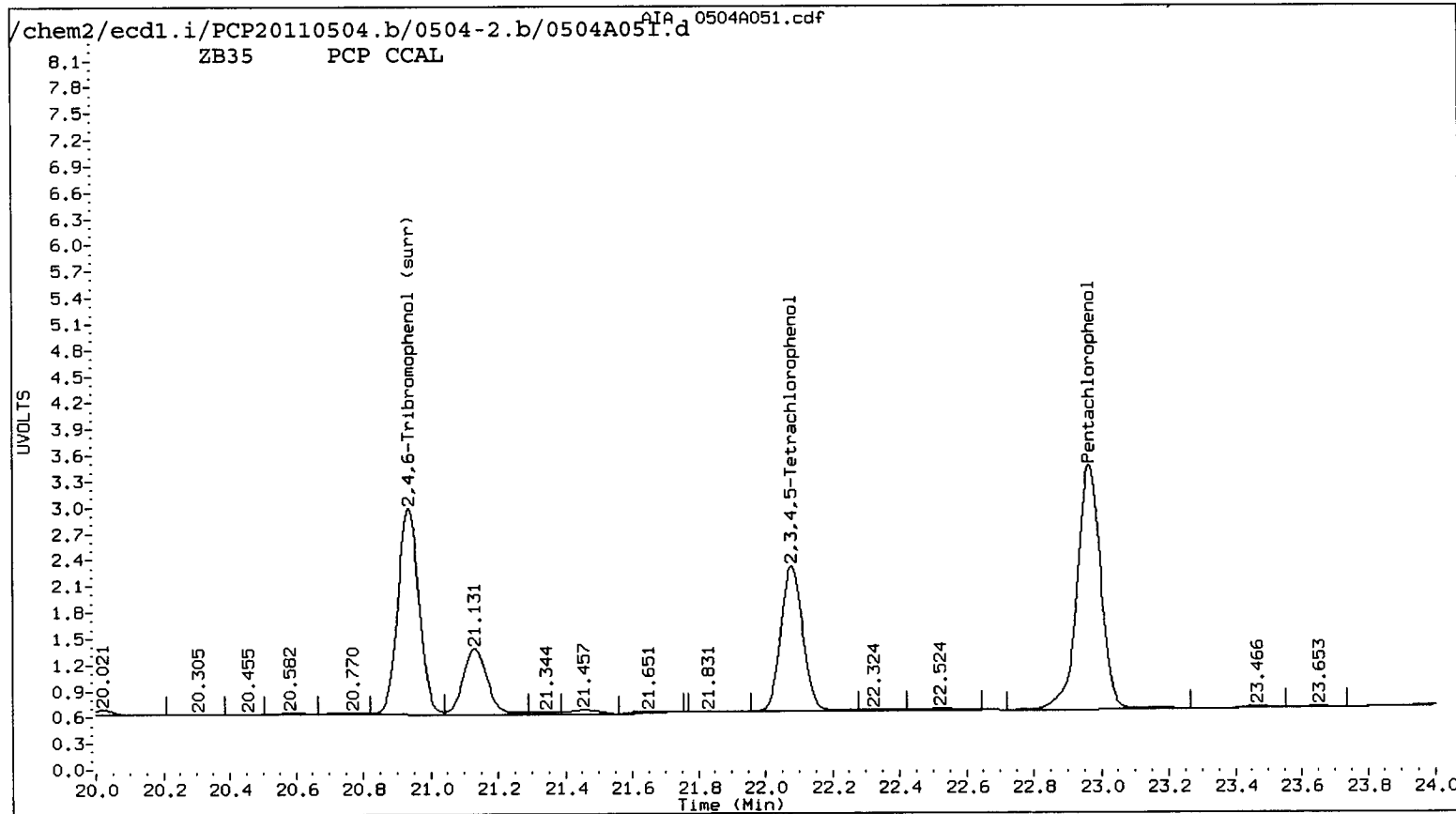
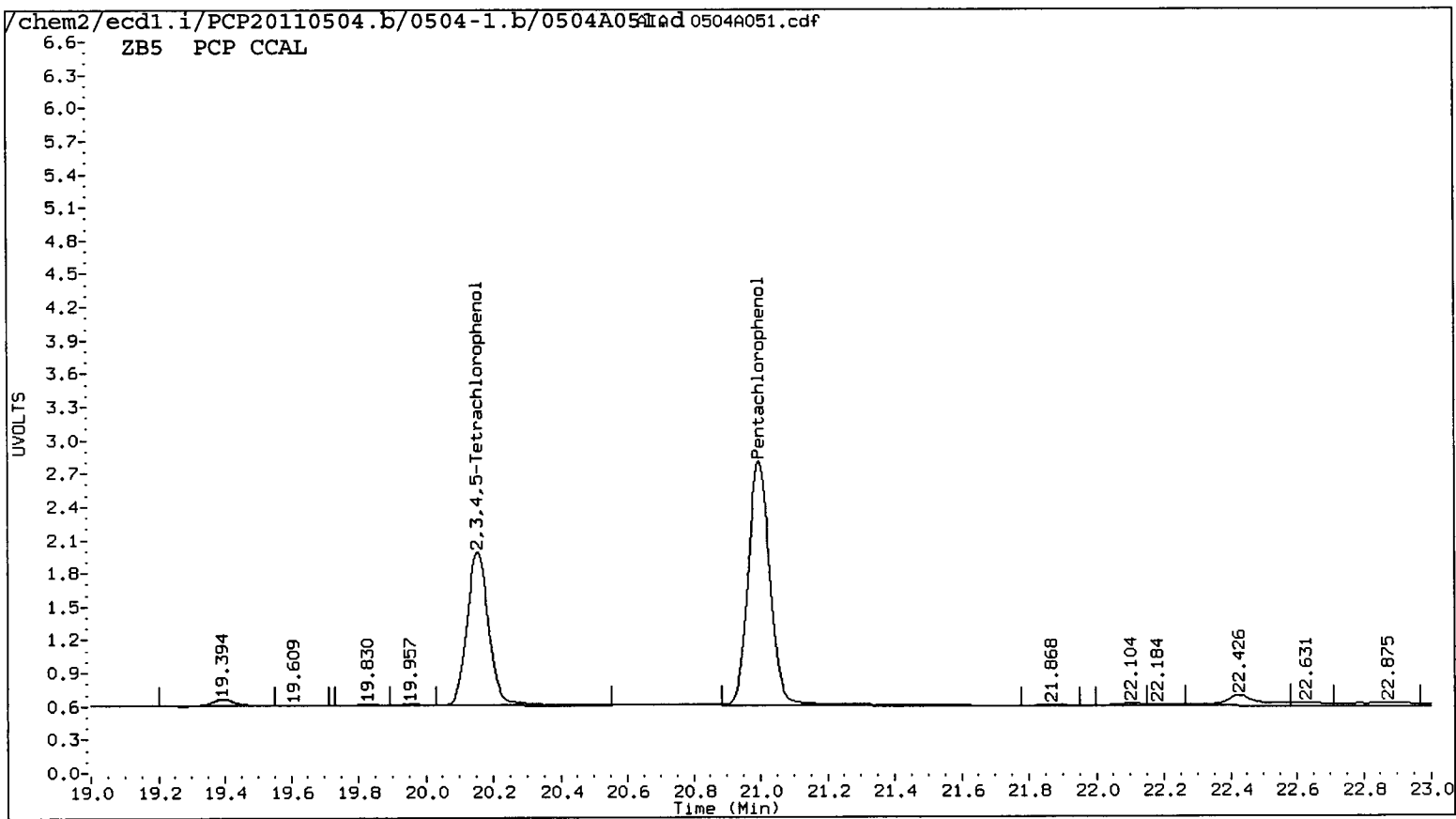
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 Injection Date: 05-MAY-2011 14:07
 Instrument: ecdi.1
 Client Sample ID: LL-SB5-2-4-041811

AIA 0504A049.cdf: 7.987 to 23.223 Min

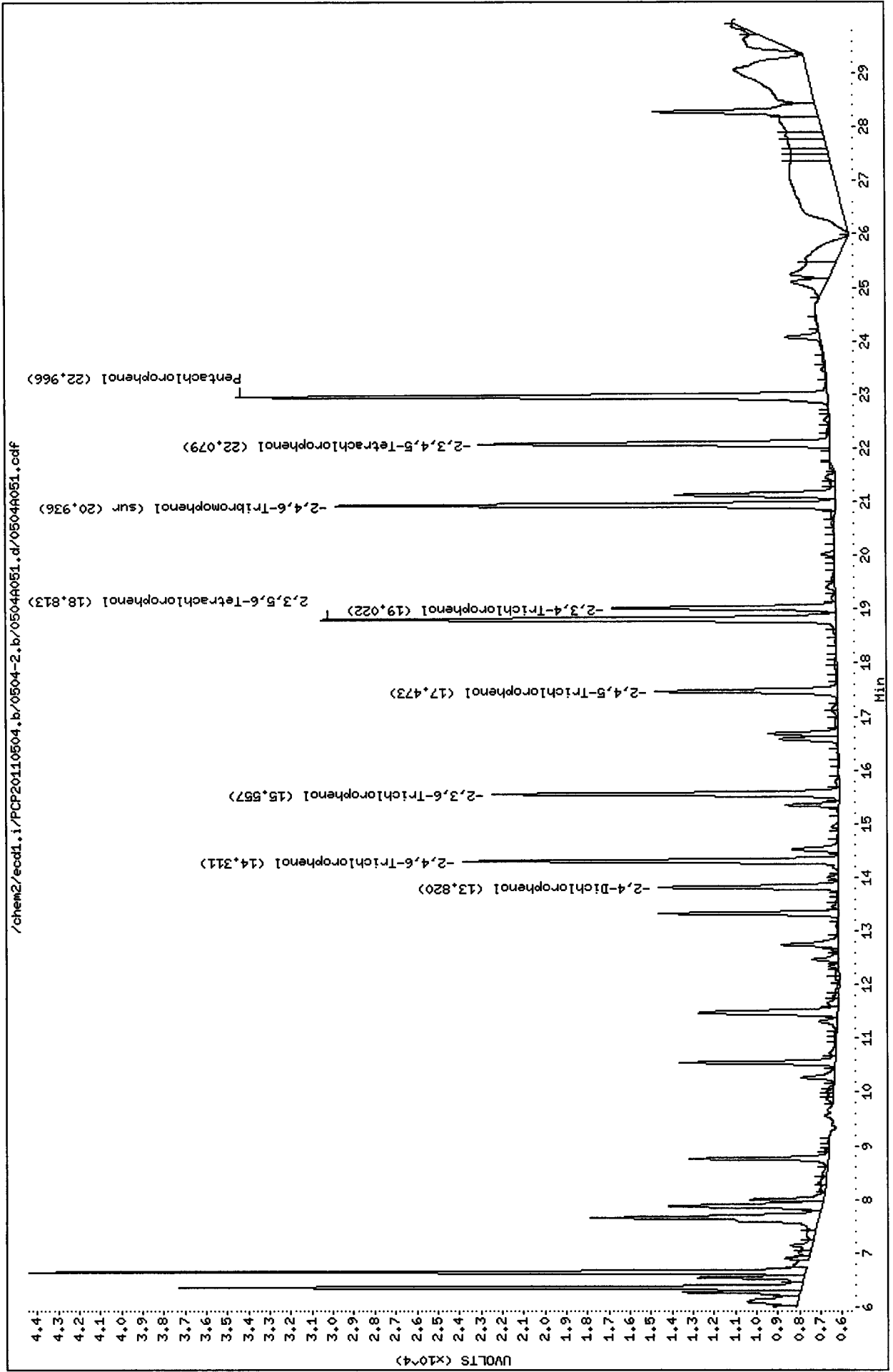


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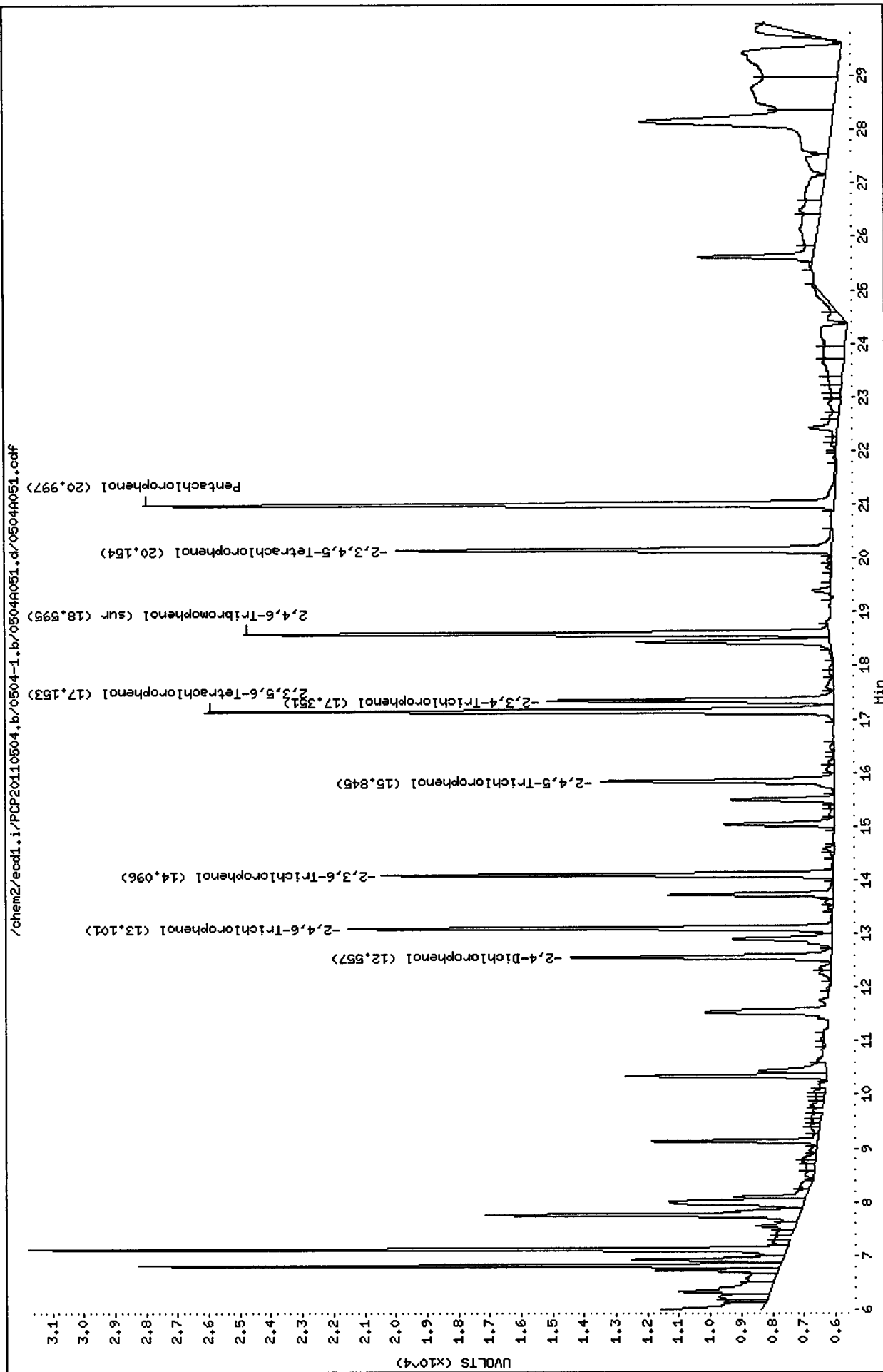
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Date : 05-MAY-2011 15:19
Client ID:
Instrument: ecdl.i
Sample Info: PCP CCAL
Operator: ar
Purge Volume: 500.0
Column diameter: 0.53
Column phase: STX CLP2



Data File: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A051.d
Date : 05-MAY-2011 15:19
Client ID:
Sample Info: PCP CCAL
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecdl1.i

Operator: ar
Column diameter: 0.53



Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

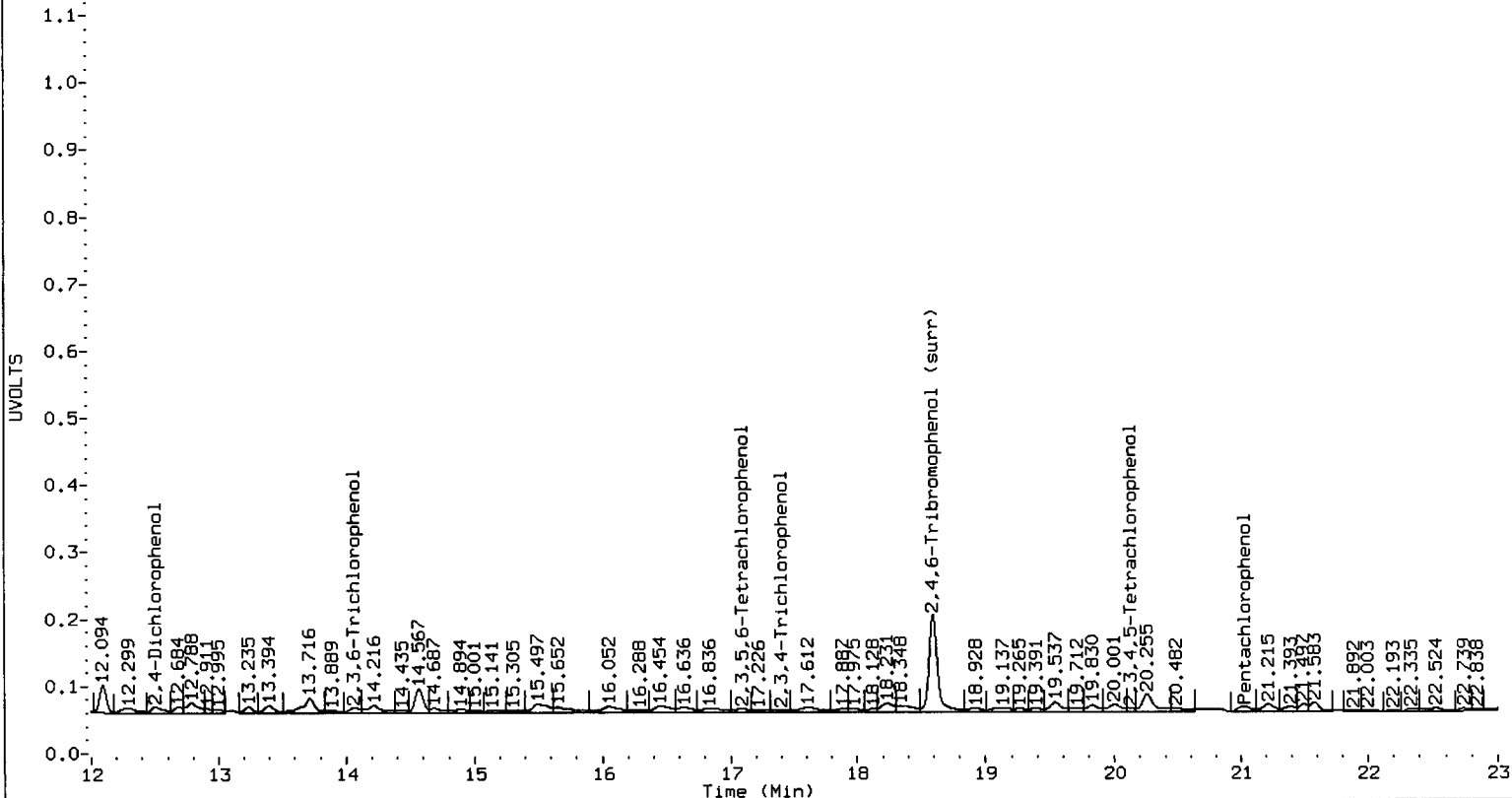
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A052.d Client ID: LL-SB4-0-0.5-041911
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 15:56
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.022	0.025	31044	22.983	0.016	21161	1.5407	0.7515	68.9*	Pentachlorophenol
----			14.362	0.051	5460	0.0000	0.3768	---	2,4,6-Trichlorophenol
14.063	-0.034	20771	15.591	0.034	28670	1.8137	1.9947	9.5	2,3,6-Trichlorophenol
----			17.442	-0.032	4767	0.0000	0.5889	---	2,4,5-Trichlorophenol
17.404	0.053	19183	19.004	-0.019	3158	2.2960	0.3013	153.6*	2,3,4-Trichlorophenol
17.093	-0.060	20572	18.837	0.023	11594	1.2168	0.5285	78.9*	2,3,5,6-Tetrachlorophenol
20.122	-0.032	10557	22.103	0.023	70445	0.8132	4.2030	135.2*	2,3,4,5-Tetrachlorophenol
12.505	-0.050	27880	13.821	0.001	52710	35.7538	64.0369	56.7*	2,4-Dichlorophenol
18.595	-0.001	353034	20.935	-0.001	409100	22.4	19.5	14.2	2,4,6-Tribromophenol (surr)

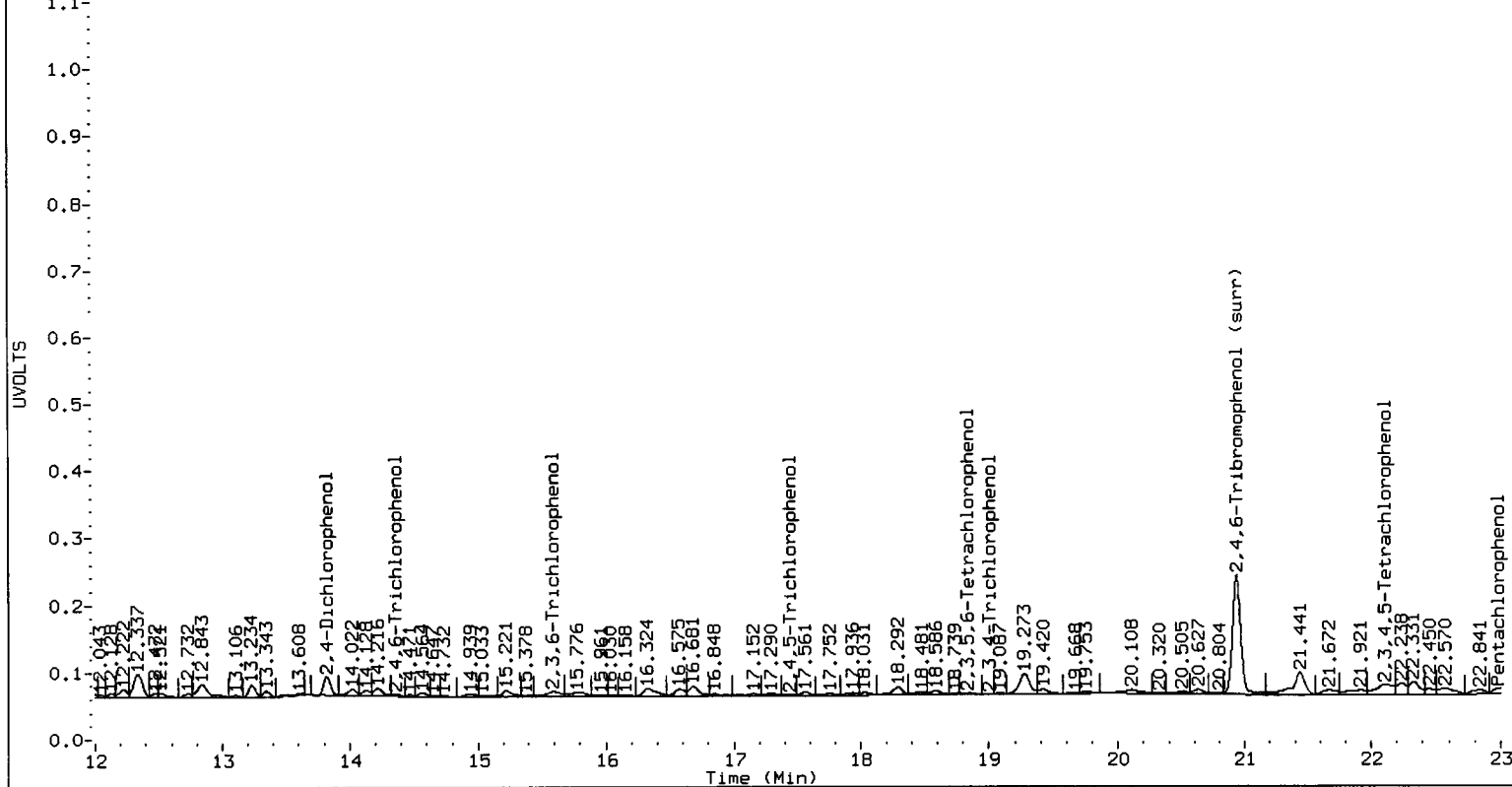
PERCENT RECOVERY

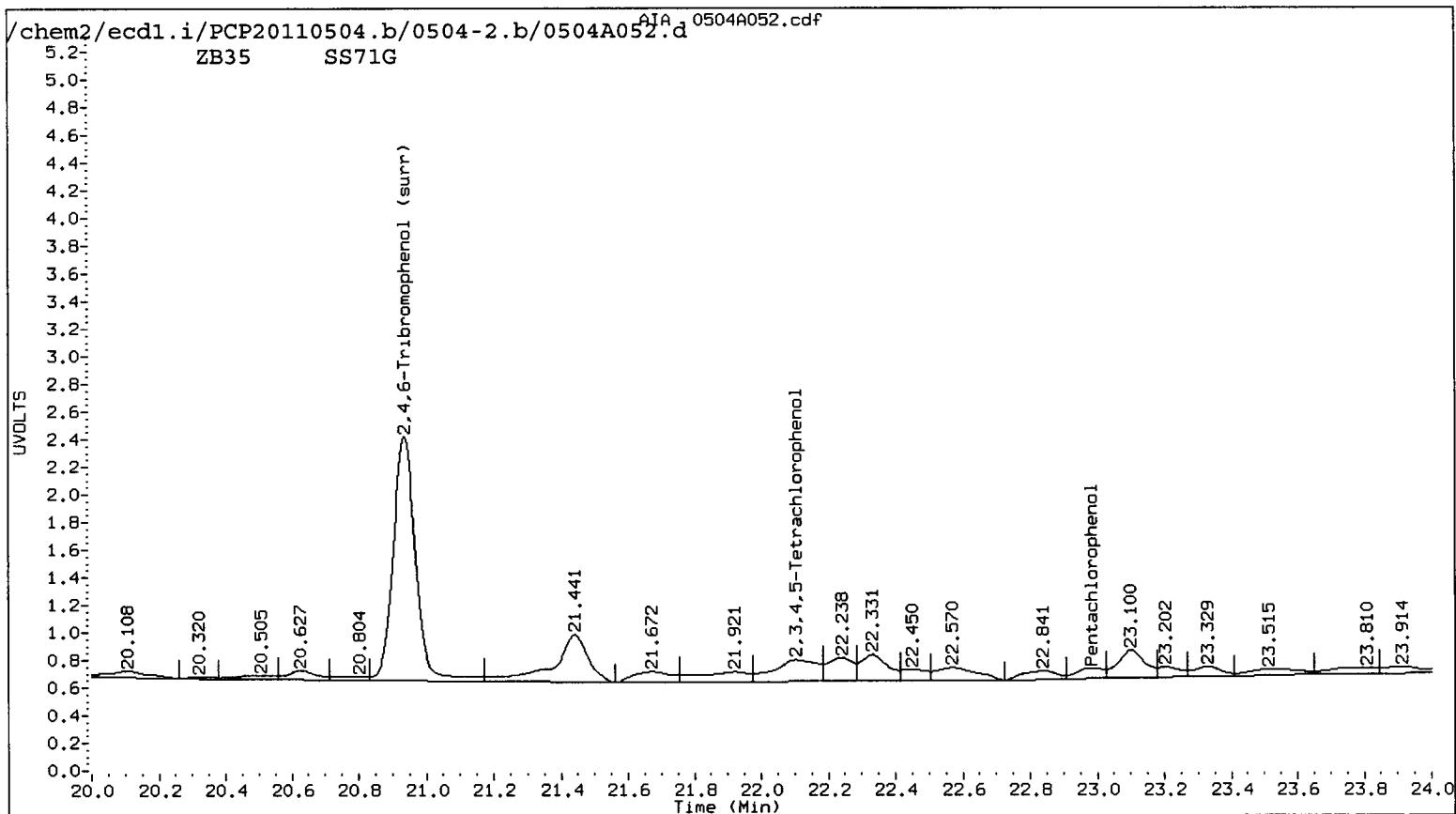
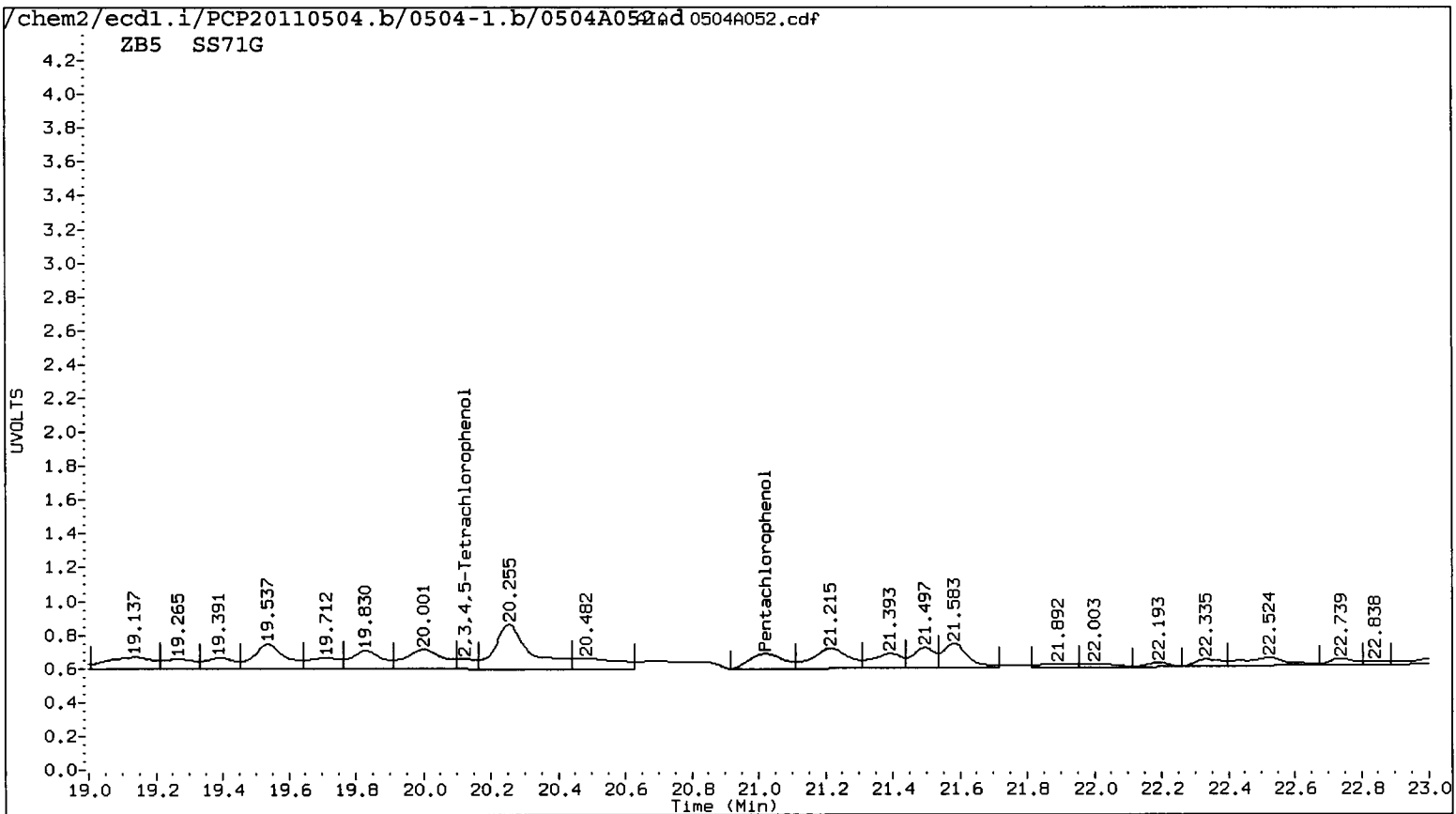
COMPOUND	Col1	Col2
2,4,6-TBP (surr)	89.7	77.8

ZB-5 SS71G



ZB35 SS71G





Data File: /chem2/ecdl1.i/PCP20110504.b/0504-2.b/05040052.d

Date : 05-MAY-2011 15:56

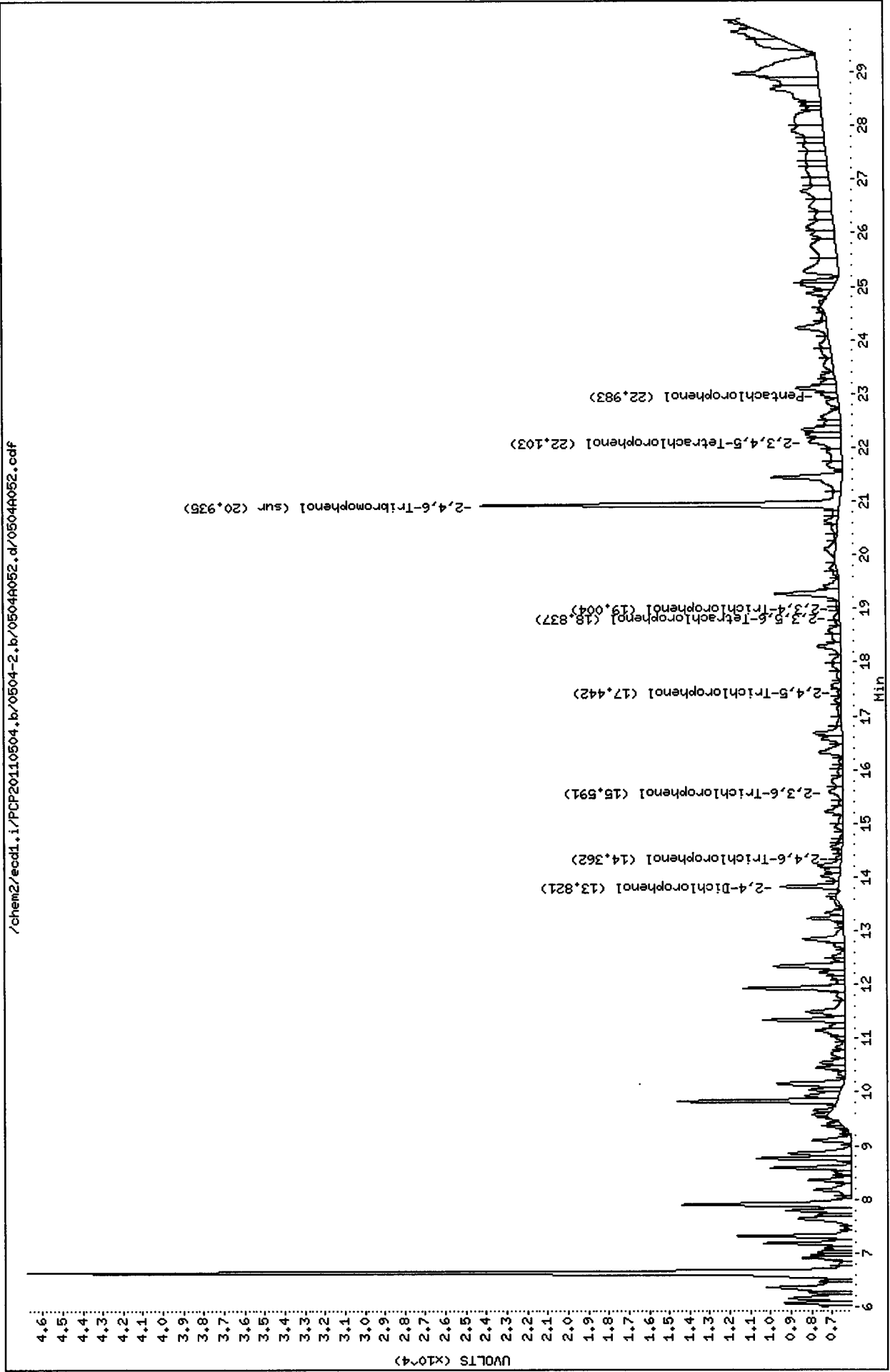
Client ID: LL-SB4-0-0.5-041911

Sample Info: SS71G

Instrument: ecd1.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP2



Data File: /chem2/ecd1.i/PCP20110504.b/0504-1.b/0504A052.d

Date : 05-MAY-2011 15:56

Client ID: LL-SB4-0-0.5-041911

Sample Info: SS71G

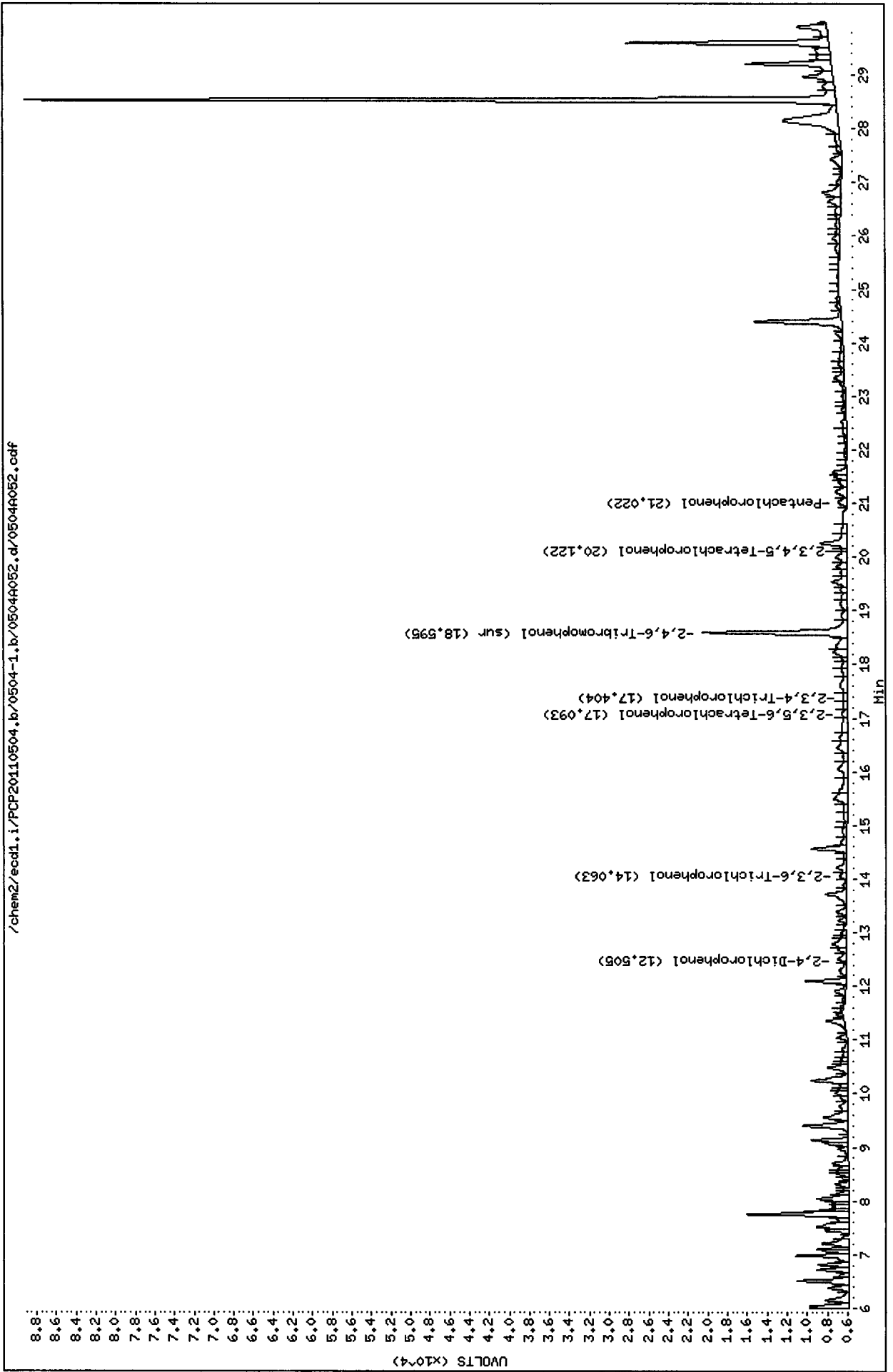
Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1

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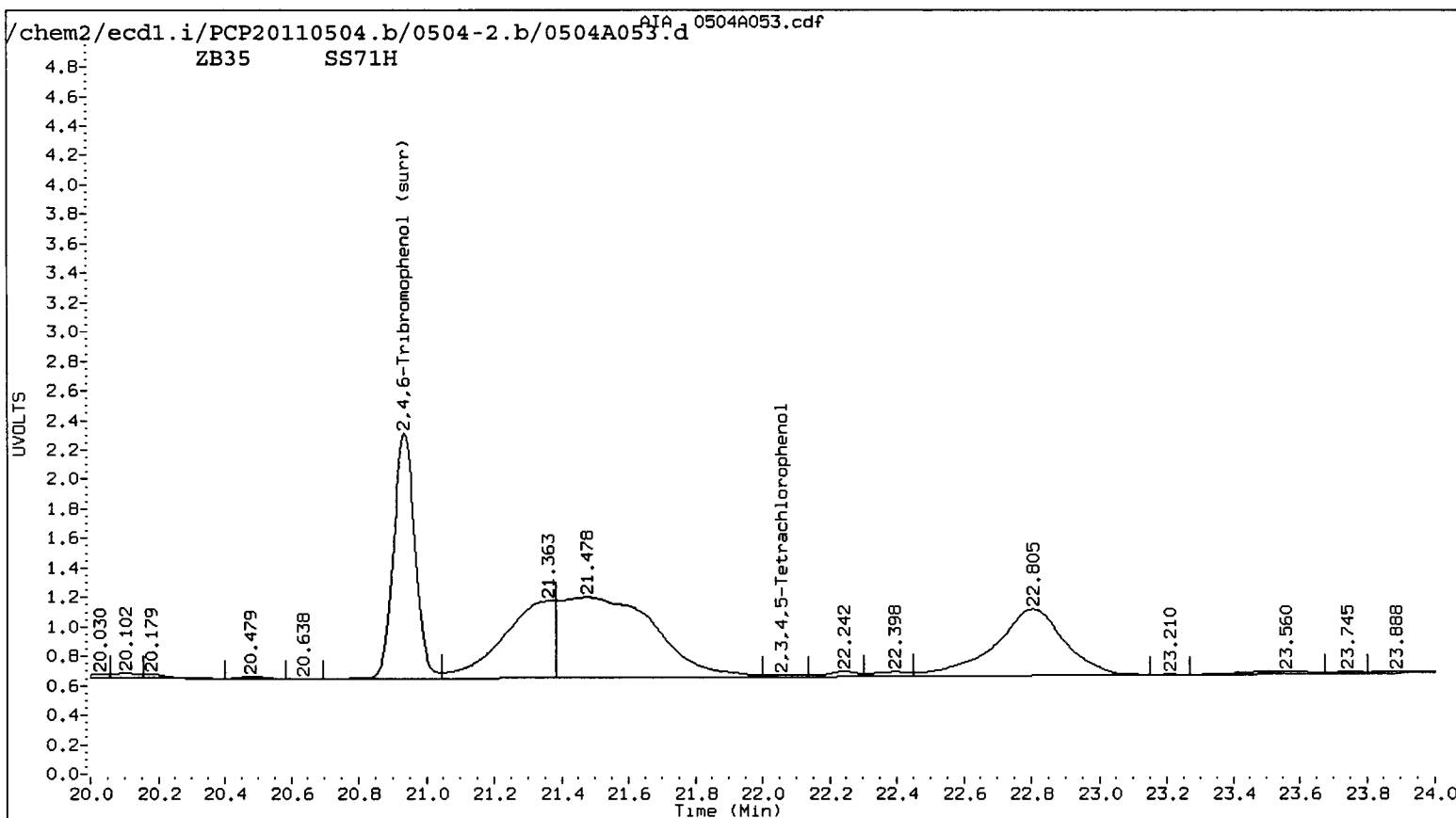
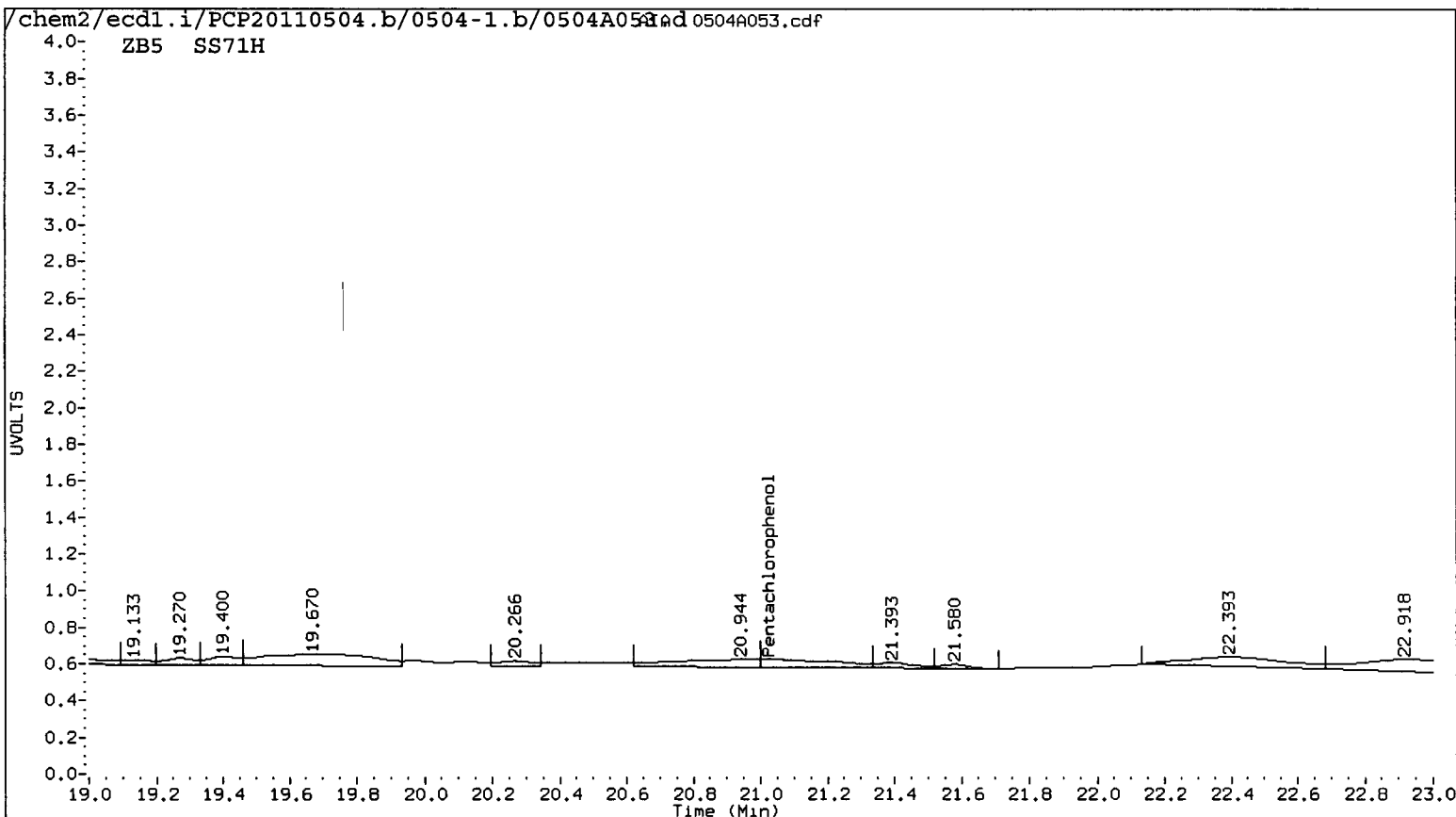
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A053.d ARI ID: SS71H
 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A053.d Client ID: LL-SB4-1.5-2-041911
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 16:32
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.027	0.030	34589	----			1.7167	0.0000	---	Pentachlorophenol
----			14.361	0.050	2590	0.0000	0.1787	---	2,4,6-Trichlorophenol
14.059	-0.038	8309	15.599	0.042	23727	0.7256	1.6508	77.9*	2,3,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,4,5-Trichlorophenol
----			19.076	0.053	3356	0.0000	0.3202	---	2,3,4-Trichlorophenol
----			18.839	0.025	10088	0.0000	0.4599	---	2,3,5,6-Tetrachlorophenol
----			22.058	-0.022	5150	0.0000	0.3011	---	2,3,4,5-Tetrachlorophenol
12.561	0.006	20082	13.835	0.015	4280	25.4774	4.8450	136.1*	2,4-Dichlorophenol
18.595	-0.001	293113	20.935	-0.001	368385	18.6	17.5	6.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	74.5	70.1



Data File: /chem2/ecd1.i/PCP20110504.b/0504-1.b/0504A053.d

Date : 05-MAY-2011 16:32

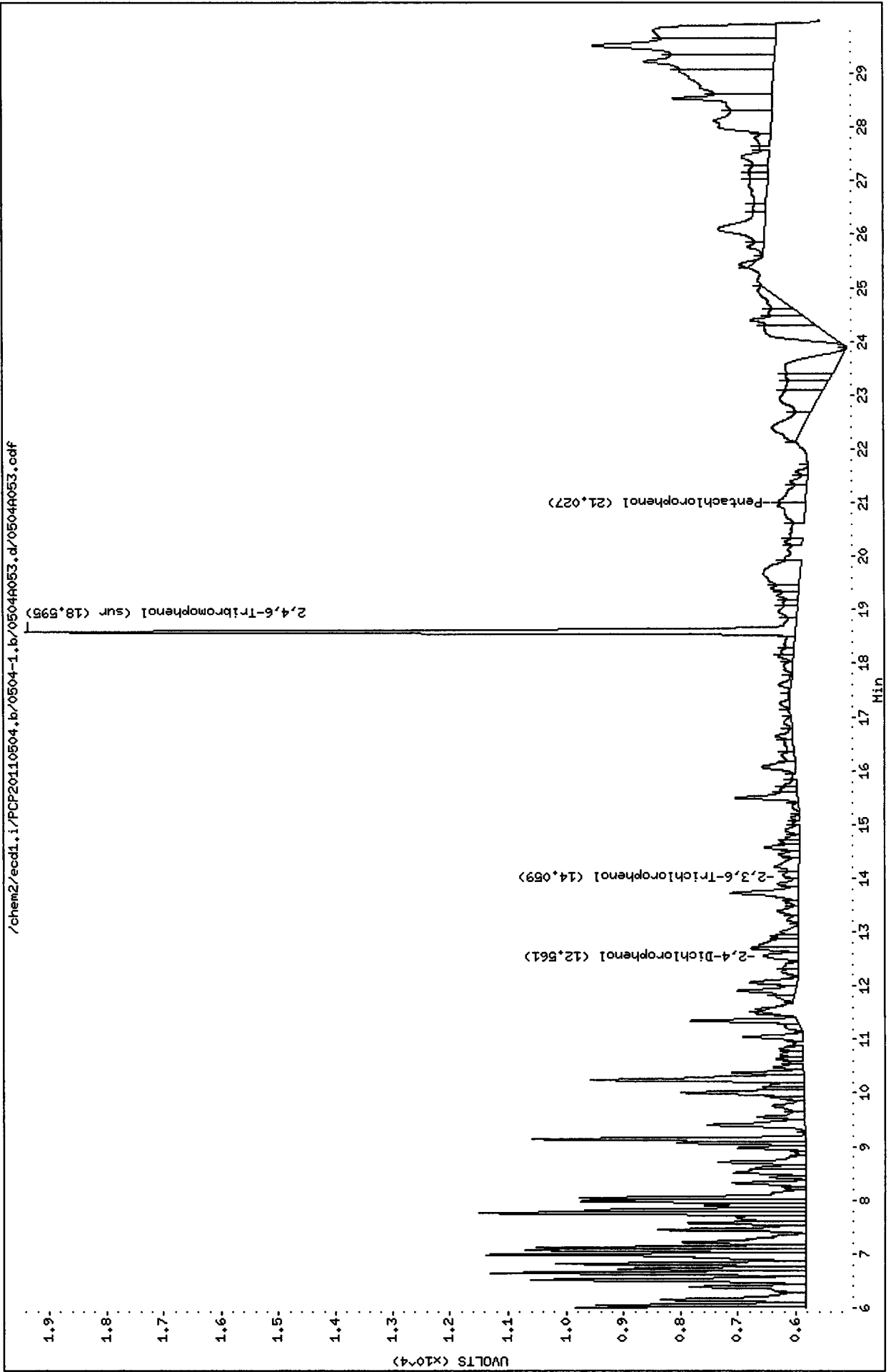
Client ID: LL-SB4-1.5-2-041911

Sample Info: SS71H

Instrument: ecd1.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP1



Data File: /chem2/ecdl1.i/PCP20110504.b/0504-2.b/0504A053.d

Date : 05-MAY-2011 16:32

Client ID: LL-SB4-1.5-2-041911

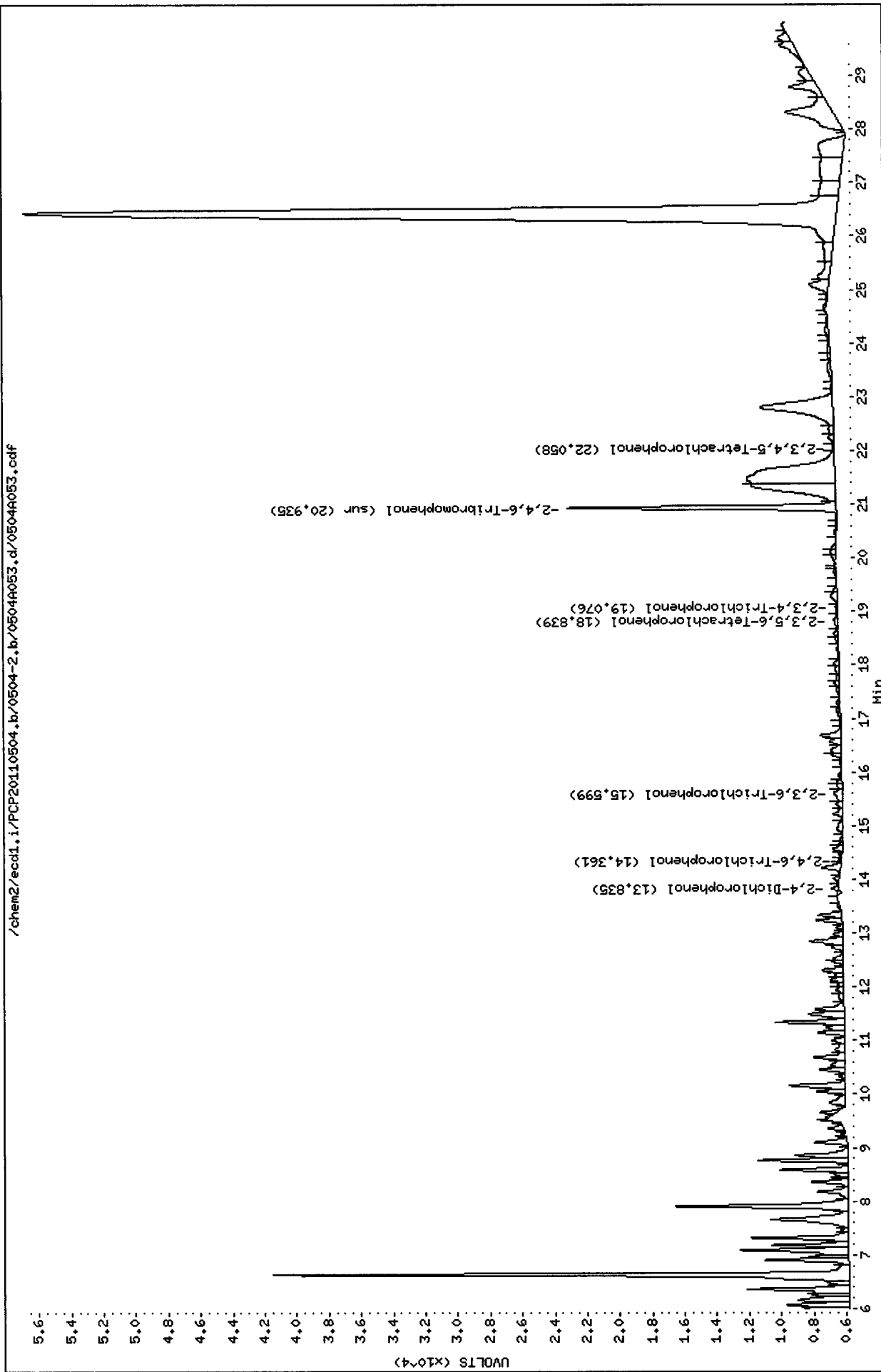
Sample Info: SS71H

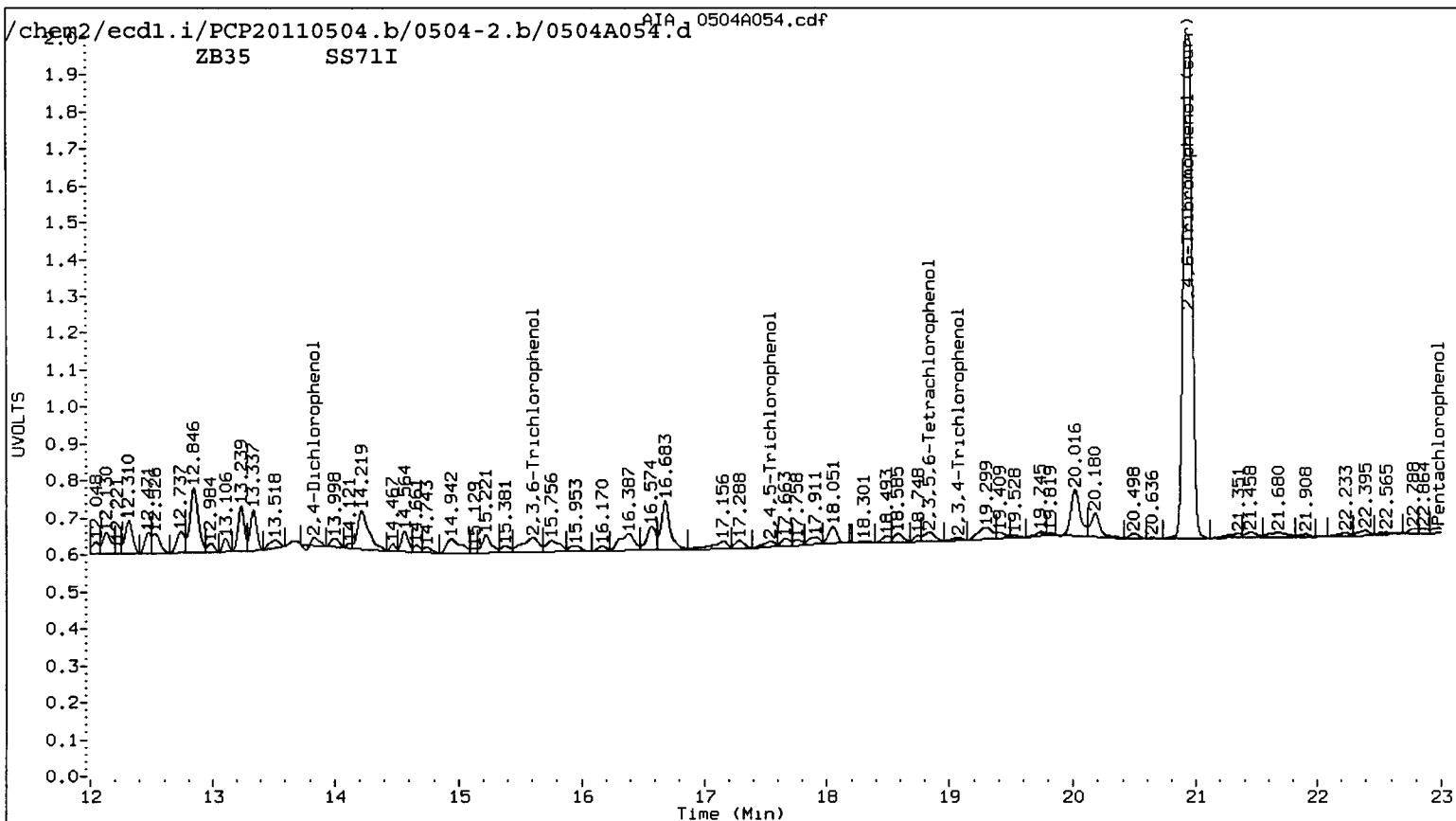
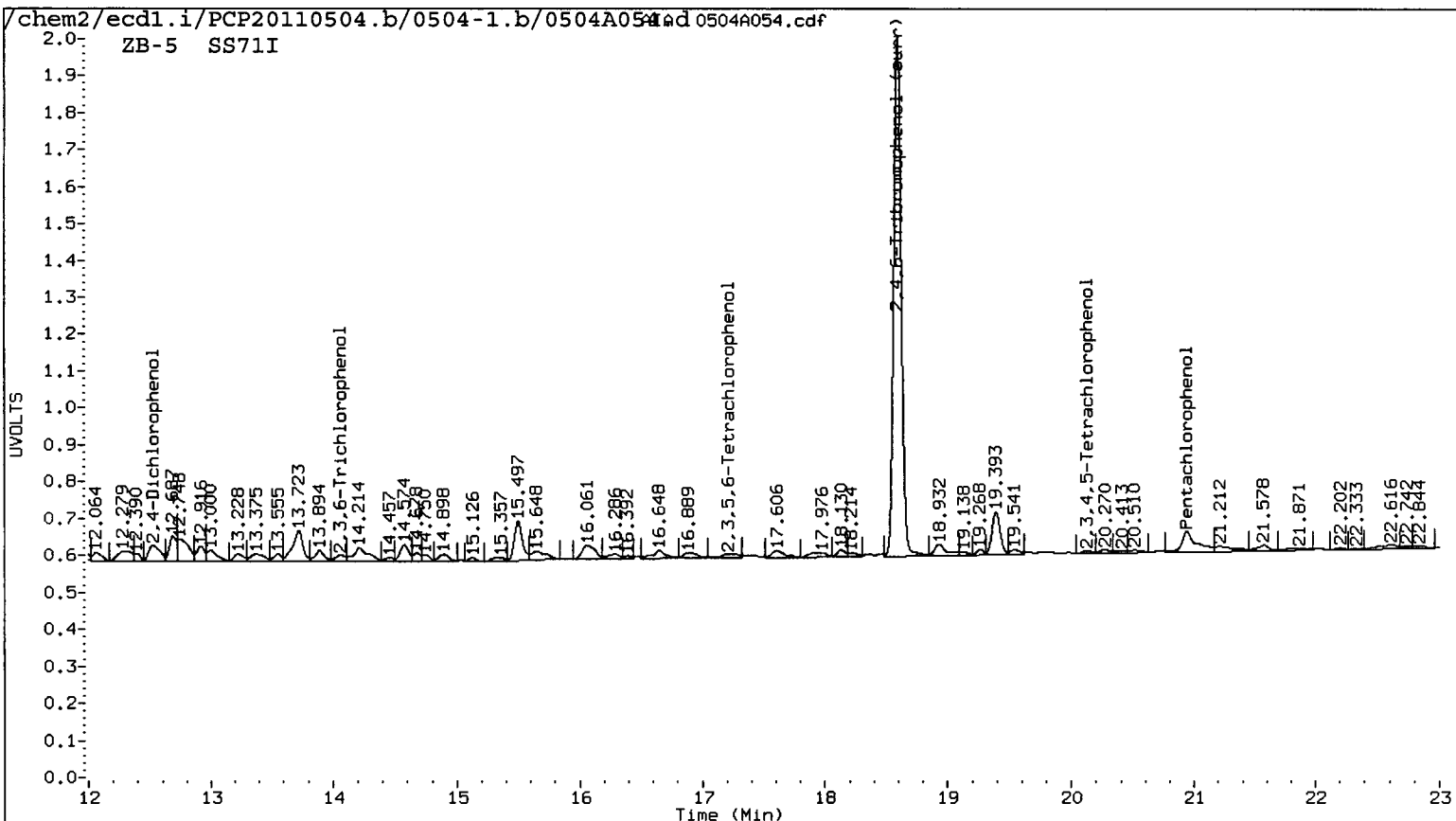
Instrument: ecdl1.i

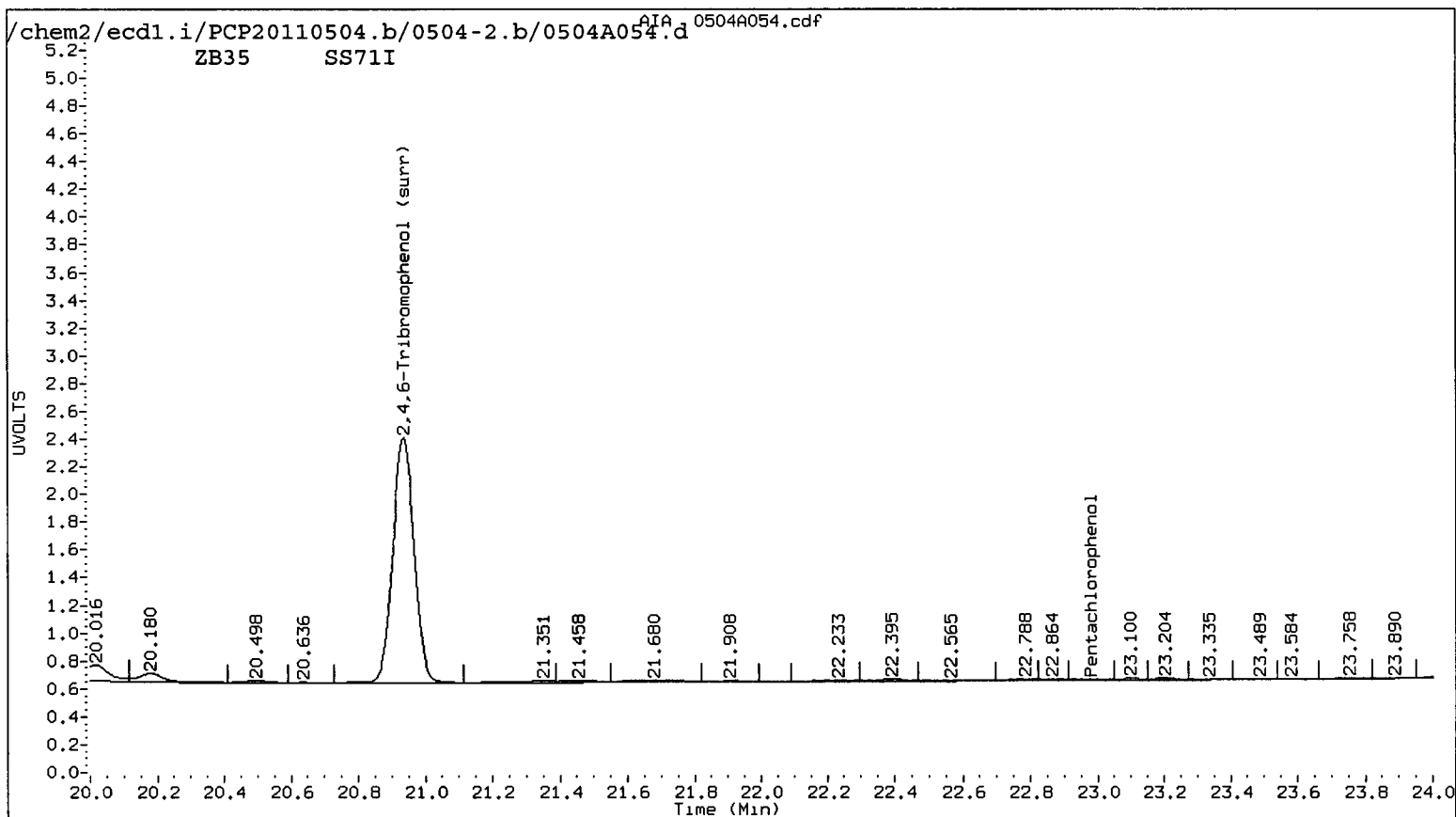
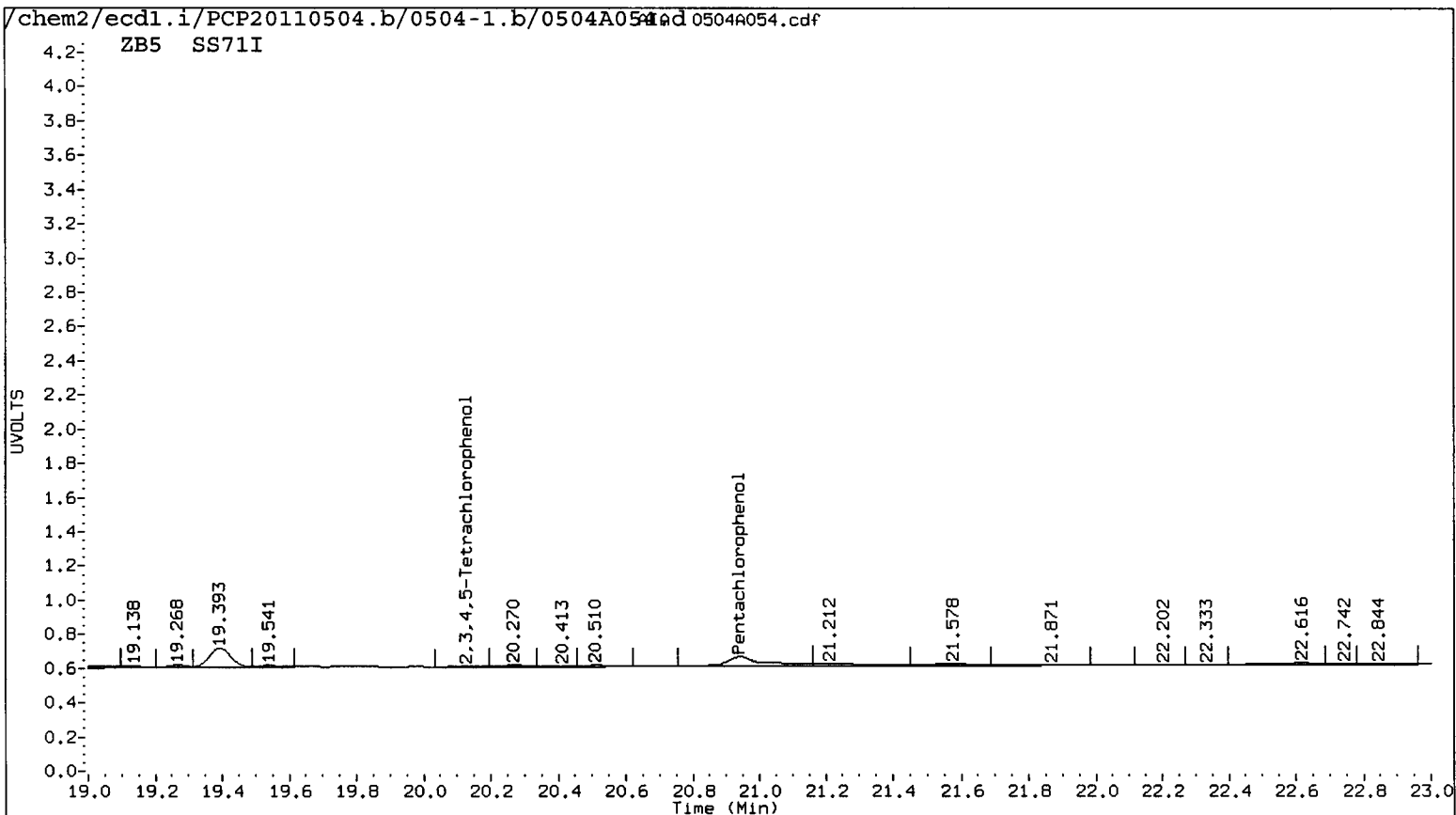
Operator: ar

Column diameter: 0.53

Column phase: STX CLP2







Data File: /chem2/ecd1.i/PCP20110504.b/0504-2.b/0504A054.d

Date : 05-MAY-2011 17:08

Client ID: LL-SB4-2-4-041911

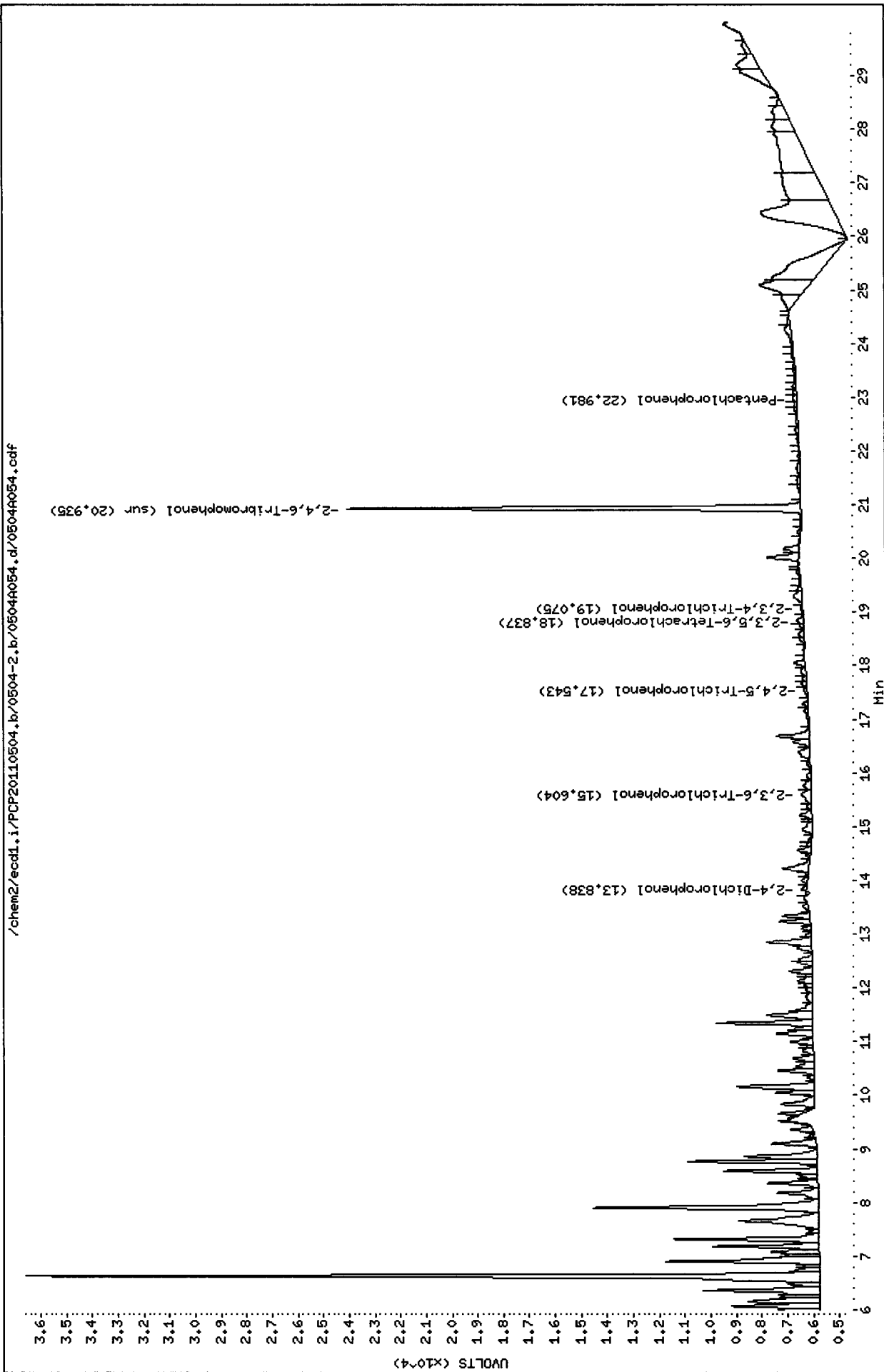
Sample Info: SS711

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2



Data File: /chem2/ecd1.i/PCP20110504.b/0504-1.b/0504A054.d

Date : 05-MAY-2011 17:08

Client ID: LL-SB4-2-4-041911

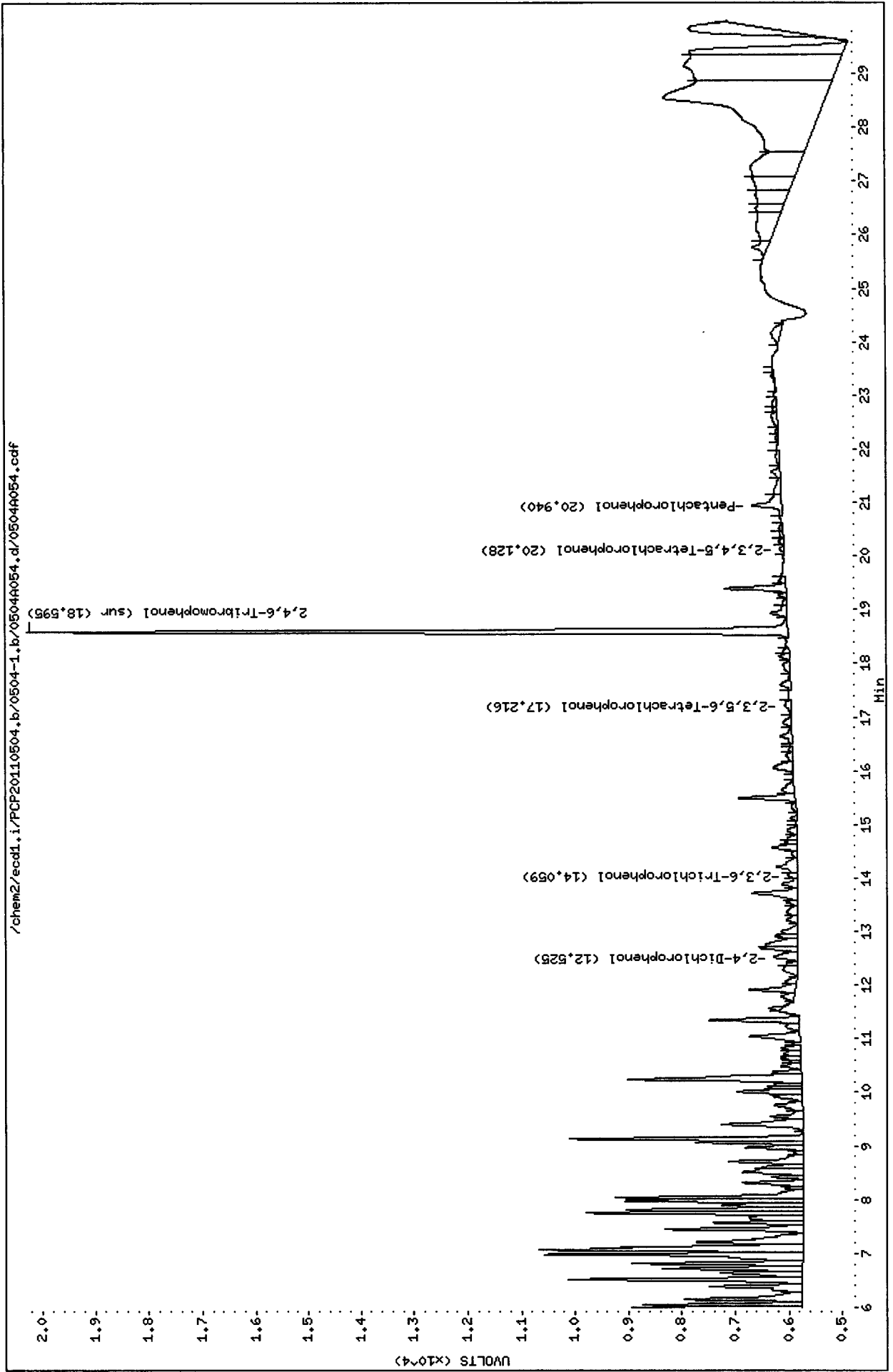
Sample Info: SS711

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



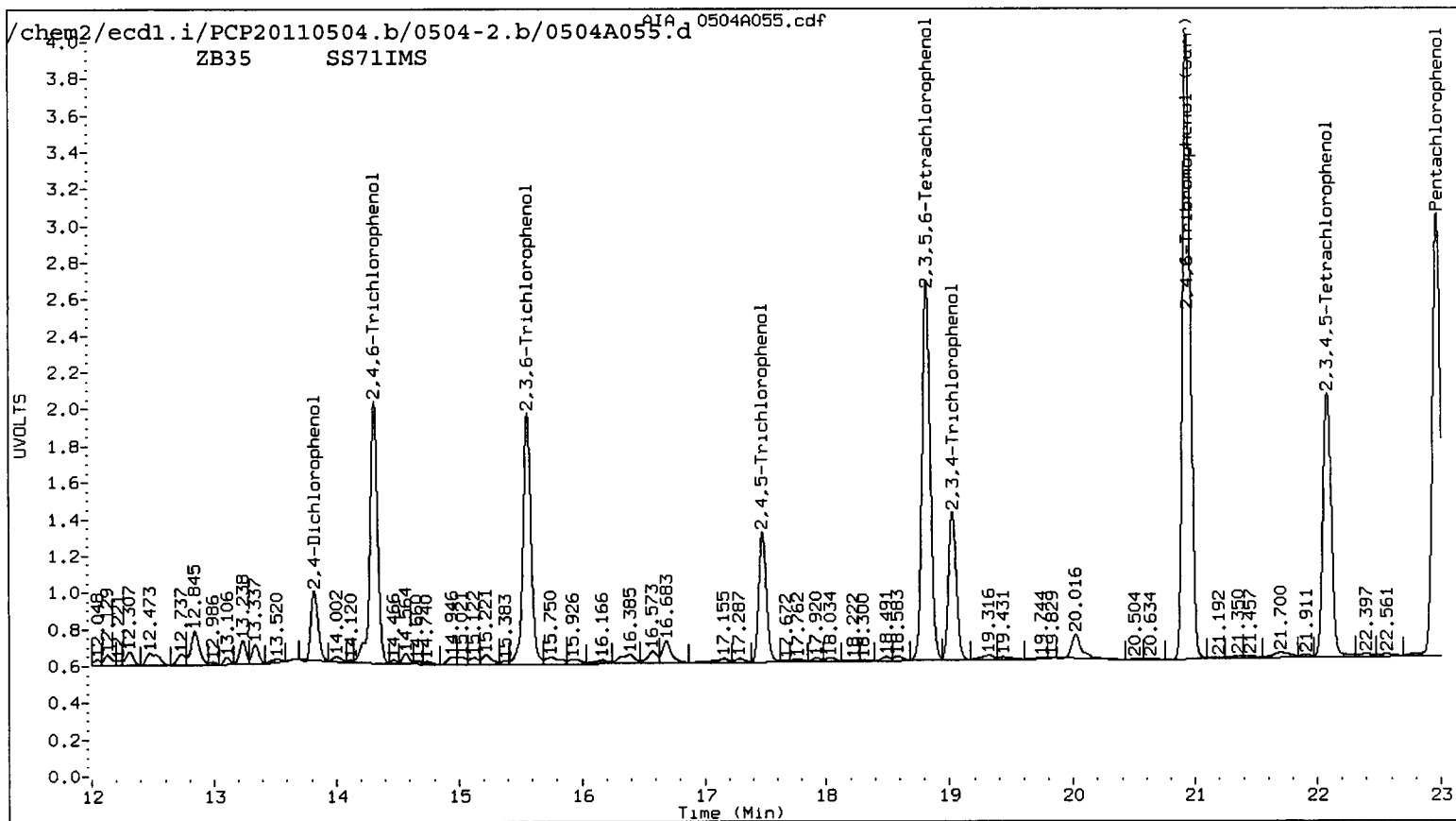
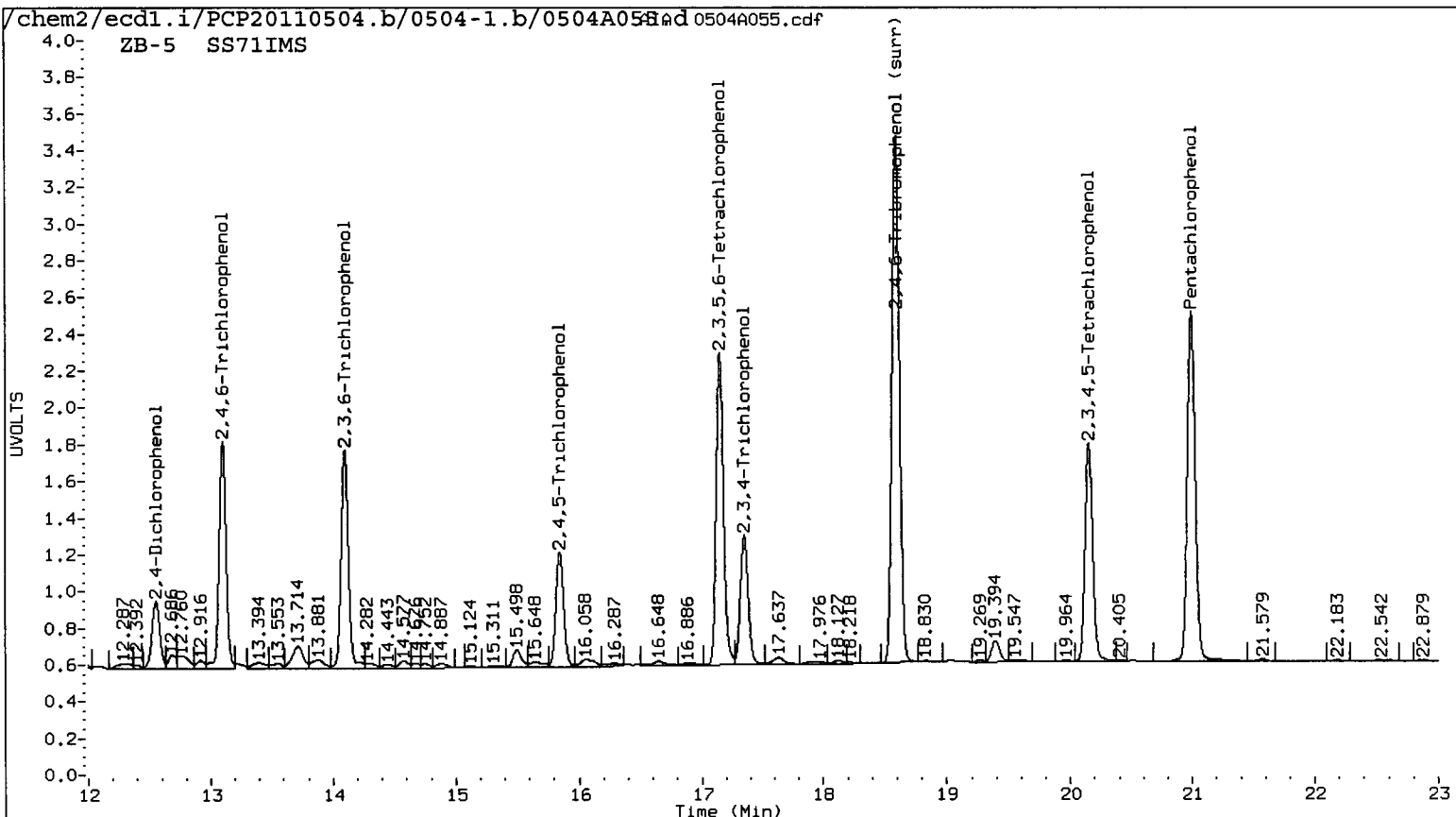
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

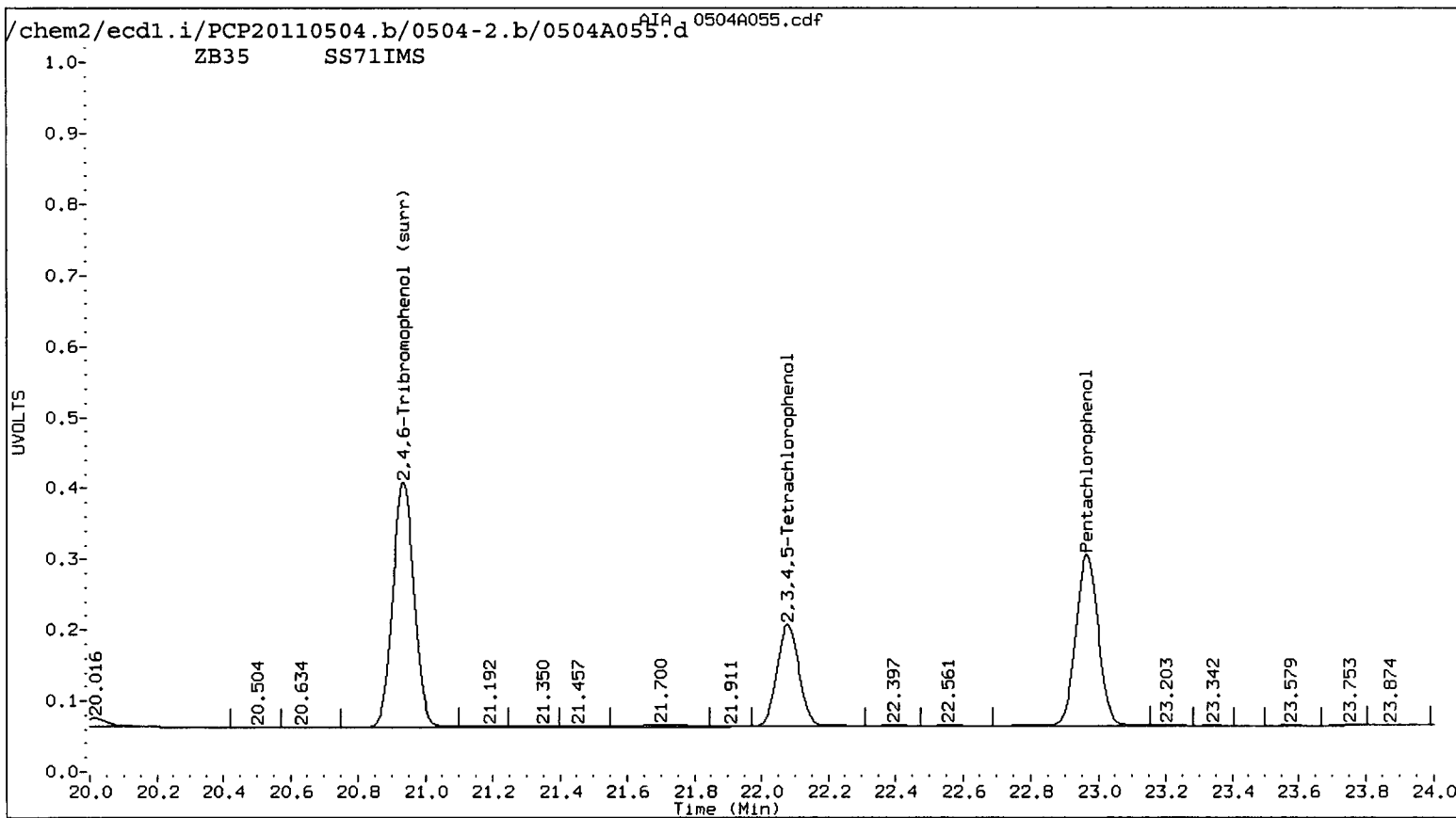
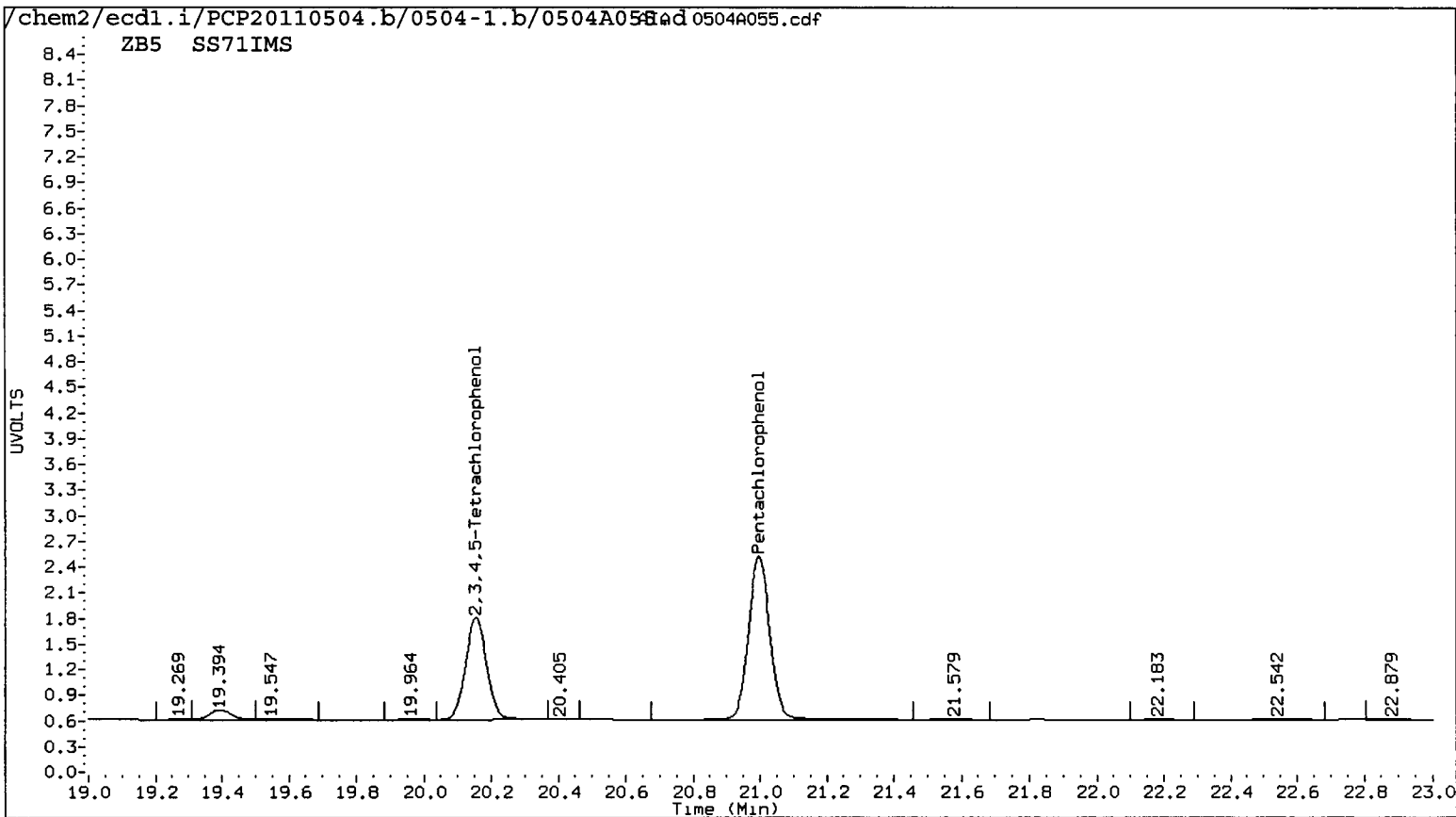
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A055.d Client ID: LL-SB4-2-4-0419 MS
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 17:45
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.997	0.000	437773	22.966	-0.001	566535	21.7267	20.1178	7.7	Pentachlorophenol
13.100	-0.001	249216	14.310	-0.001	311173	20.4732	21.4695	4.8	2,4,6-Trichlorophenol
14.096	-0.001	249271	15.556	-0.001	313643	21.7654	21.8211	0.3	2,3,6-Trichlorophenol
15.845	0.000	133434	17.473	-0.001	156854	19.5664	19.3751	1.0	2,4,5-Trichlorophenol
17.351	-0.001	156913	19.022	-0.001	180136	18.7800	19.1384	1.9	2,3,4-Trichlorophenol
17.152	-0.001	363339	18.813	-0.001	462248	21.4908	21.0707	2.0	2,3,5,6-Tetrachlorophenol
20.155	0.000	264146	22.079	-0.001	333168	20.3475	21.4977	5.5	2,3,4,5-Tetrachlorophenol
12.554	-0.001	80944	13.820	0.000	77102	111.4147	96.8960	13.9	2,4-Dichlorophenol
18.595	0.000	604928	20.935	-0.001	765464	38.4	36.4	5.4	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	86.9	80.5
2,4,6-Trichlorophenol	81.9	85.9
2,3,6-Trichlorophenol	87.1	87.3
2,4,5-Trichlorophenol	78.3	77.5
2,3,4-Trichlorophenol	75.1	76.6
2,3,5,6-Tetrachlorophenol	86.0	84.3
2,3,4,5-Tetrachlorophenol	81.4	86.0
2,4-Dichlorophenol	44.6	38.8
2,4,6-TBP (surr)	76.8	72.8



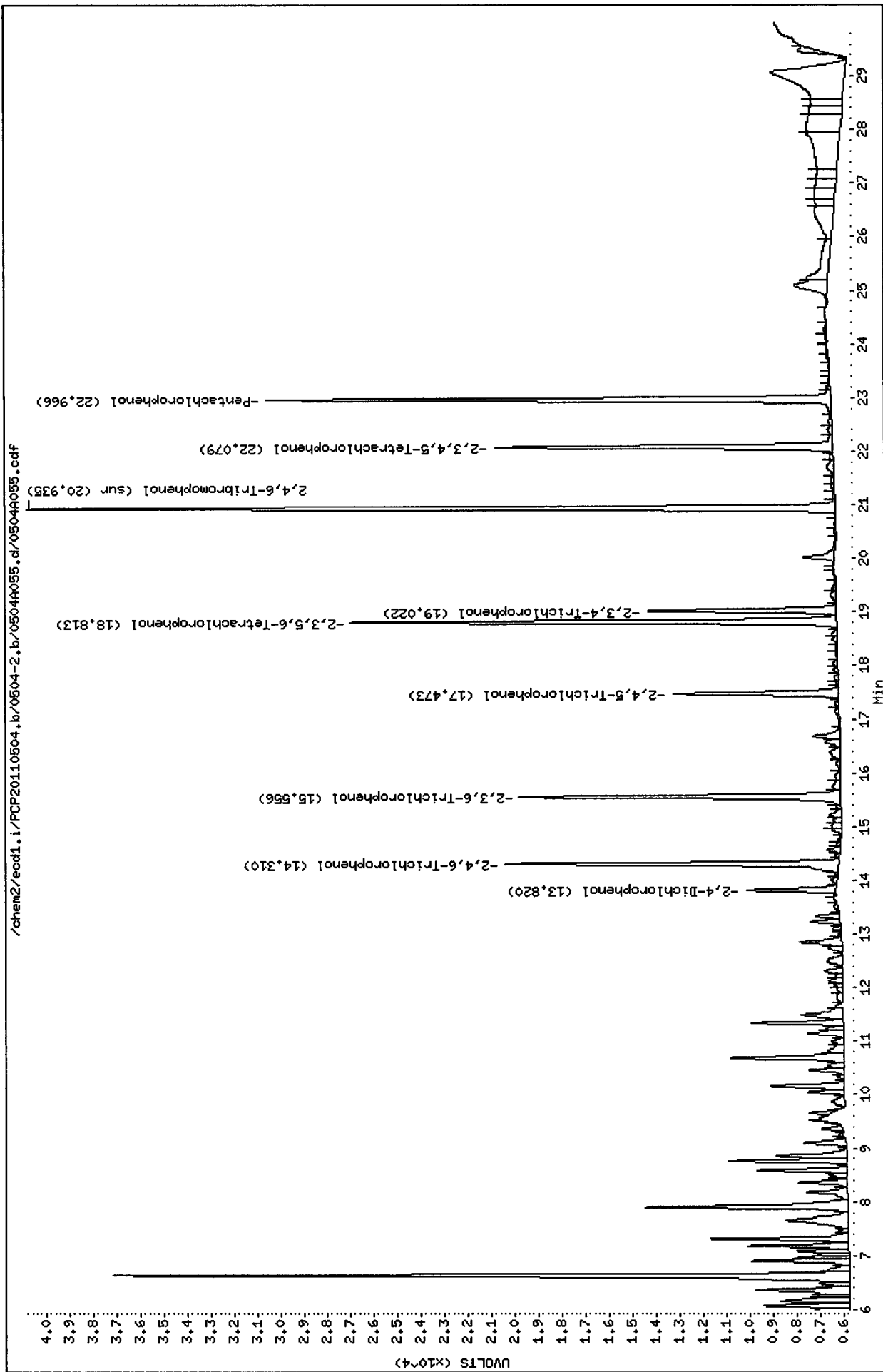


Data File: /chem2/ecdl1.i/PCP20110504.b/0504-2.b/0504A055.d
Date : 05-MAY-2011 17:45
Client ID: LL-SB4-2-4-0419 MS
Sample Info: SS71IMS

Instrument: ecd1.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP2

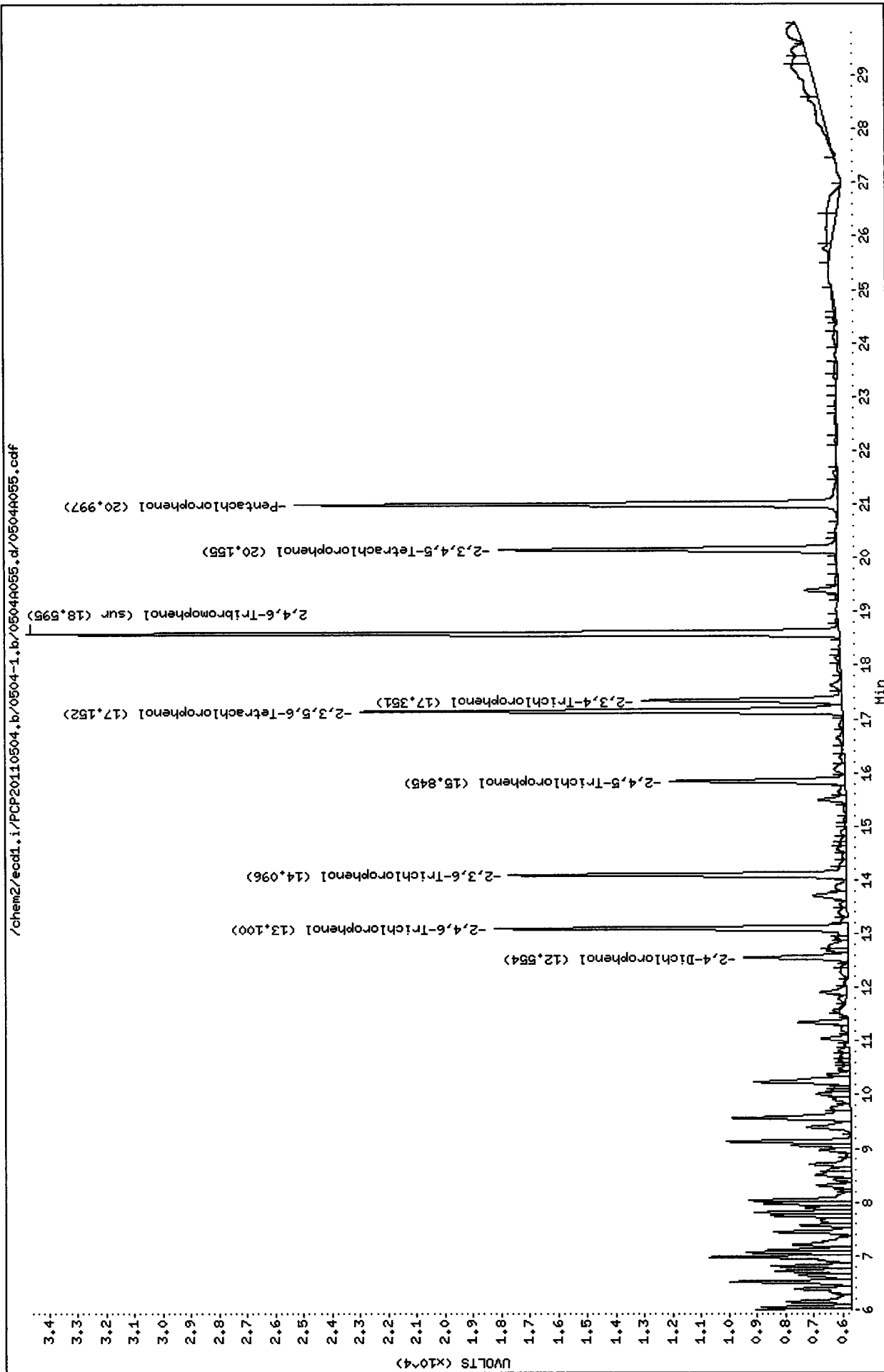


Data File: /chem2/ecdl1.i/PCP20110504.b/0504-1.b/0504A055.d
Date : 05-MAY-2011 17:45
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Sample Info: SS71IMS

Instrument: ecdl1.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP1



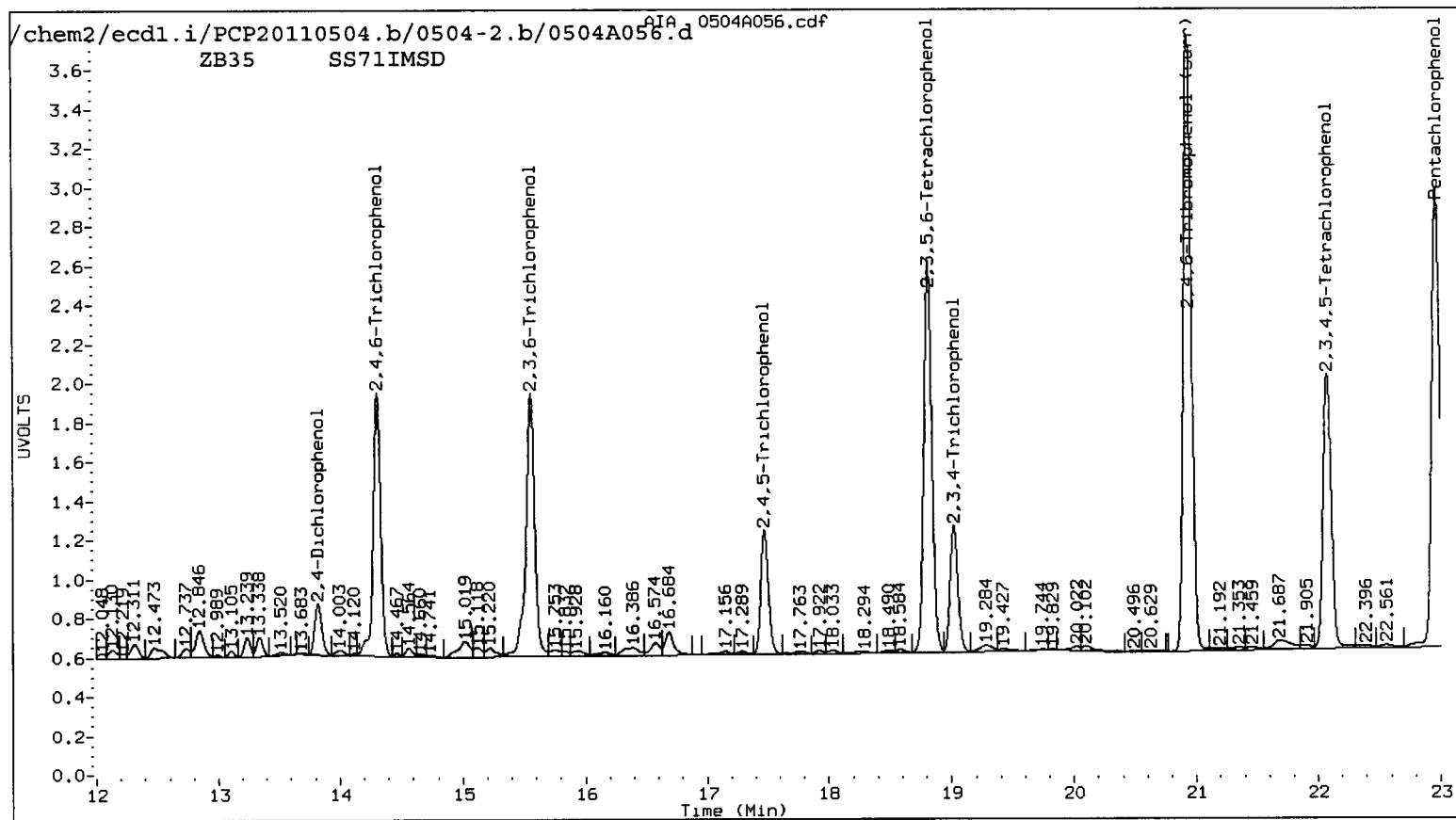
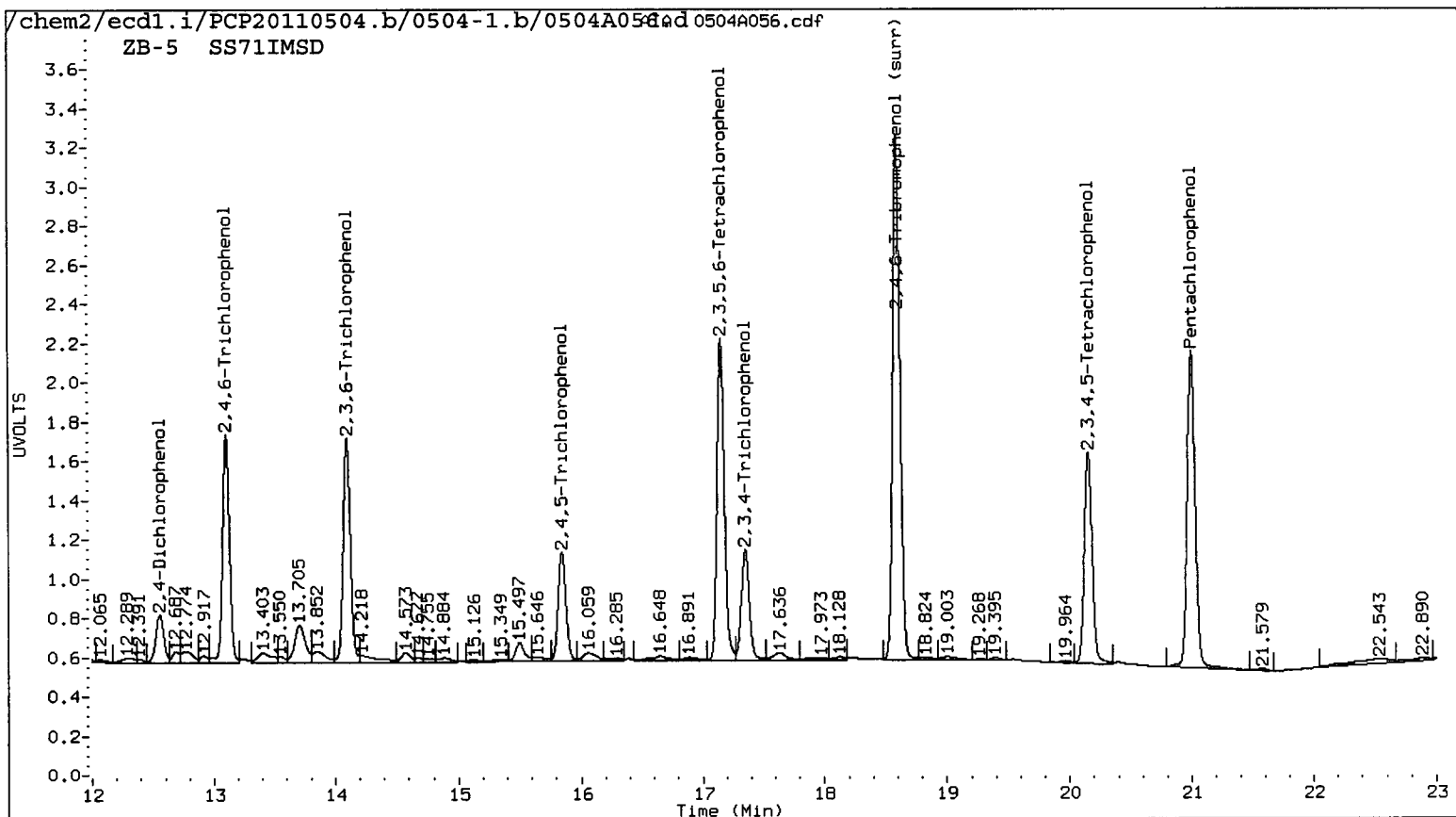
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

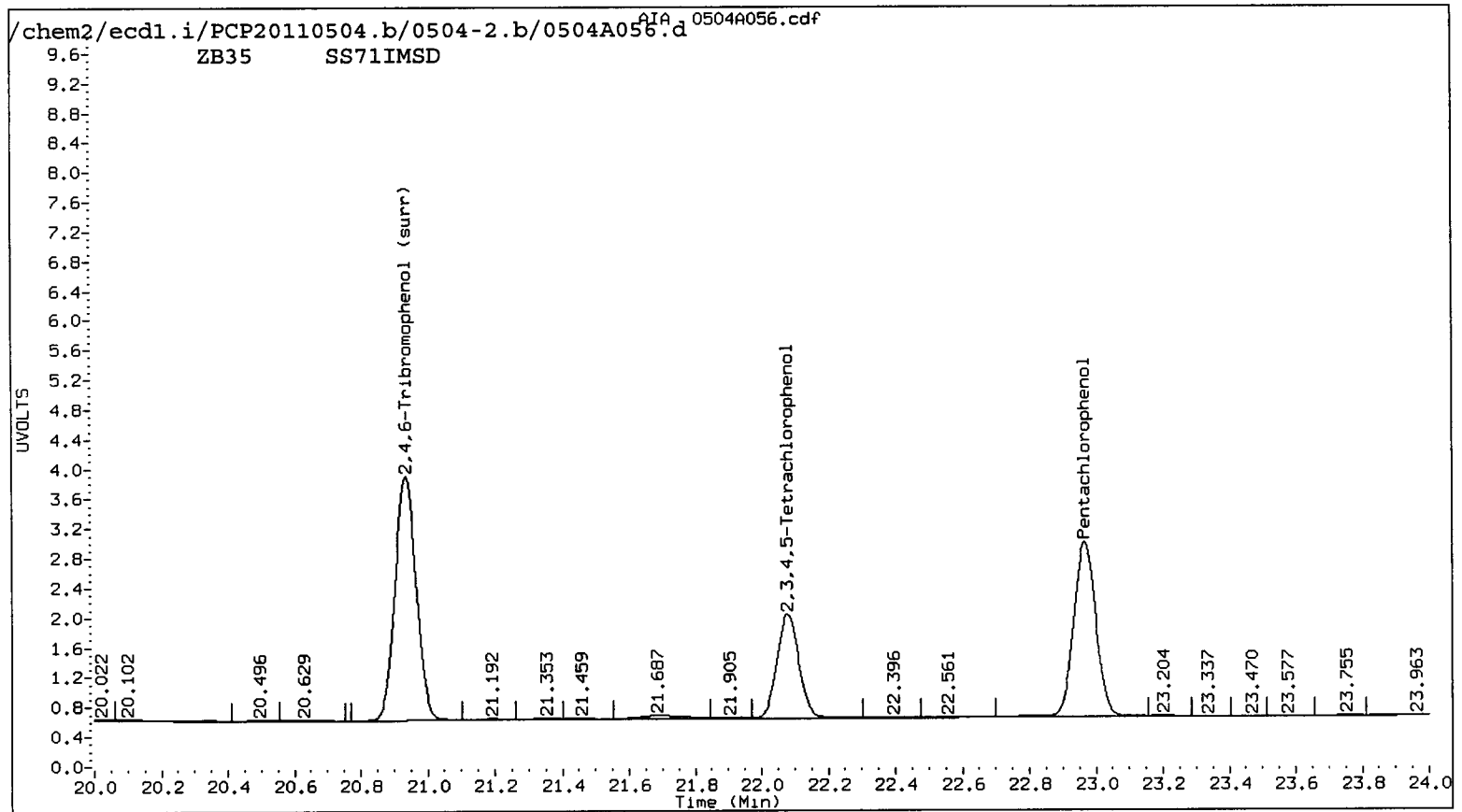
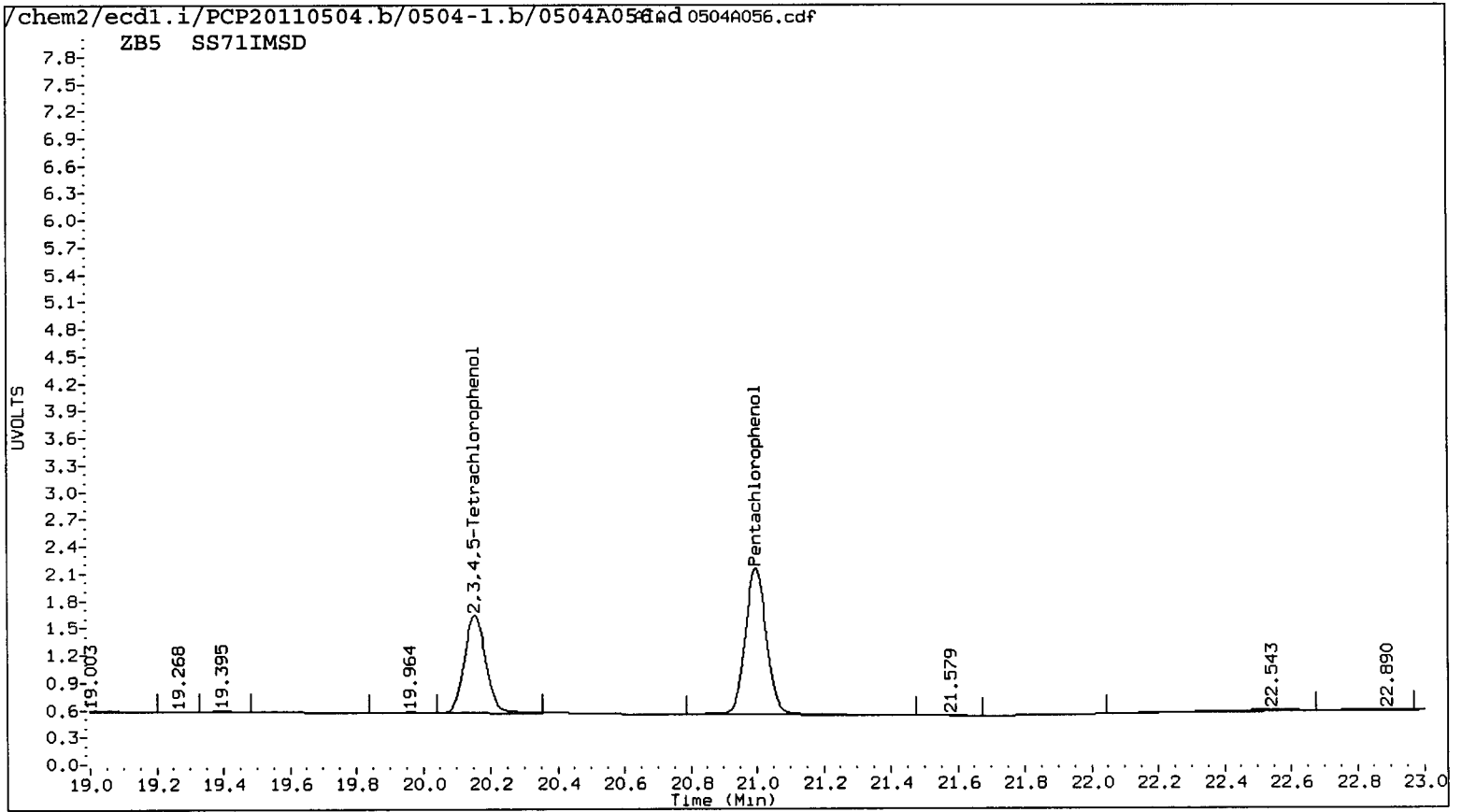
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A056.d Client ID: LL-SB4-2-4-0419 MSD
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 18:21
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

RT	ZB-5 Col Shift Response	RT	ZB35 Col Shift Response	ZB-5 on col	ZB35 on col	RPD	Compound
20.997	0.000/367397	22.967	0.000/552880	18.2339	19.6329	7.4	Pentachlorophenol
13.101	0.000 232119	14.310	-0.001 290276	19.0687	20.0277	4.9	2,4,6-Trichlorophenol
14.096	-0.001 234769	15.557	0.000 336585	20.4992	23.4173	13.3	2,3,6-Trichlorophenol
15.845	0.000 120651	17.474	0.000 140305	17.4940	17.3309	0.9	2,4,5-Trichlorophenol
17.352	0.000 130160	19.023	0.000 144939	15.5781	15.0858	3.2	2,3,4-Trichlorophenol
17.152	0.000 353544	18.813	-0.001 445832	20.9115	20.3224	2.9	2,3,5,6-Tetrachlorophenol
20.154	0.000 244396	22.080	0.000 324905	18.8262	20.9148	10.5	2,3,4,5-Tetrachlorophenol
12.555	0.000 54114	13.821	0.001 55036	71.9131	67.0825	7.0	2,4-Dichlorophenol
18.595	0.000 569100	20.936	0.000 724062	36.1	34.4	4.8	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	72.9	78.5
2,4,6-Trichlorophenol	76.3	80.1
2,3,6-Trichlorophenol	82.0	93.7
2,4,5-Trichlorophenol	70.0	69.3
2,3,4-Trichlorophenol	62.3	60.3
2,3,5,6-Tetrachlorophenol	83.6	81.3
2,3,4,5-Tetrachlorophenol	75.3	83.7
2,4-Dichlorophenol	28.8	26.8
2,4,6-TBP (surr)	72.3	68.9



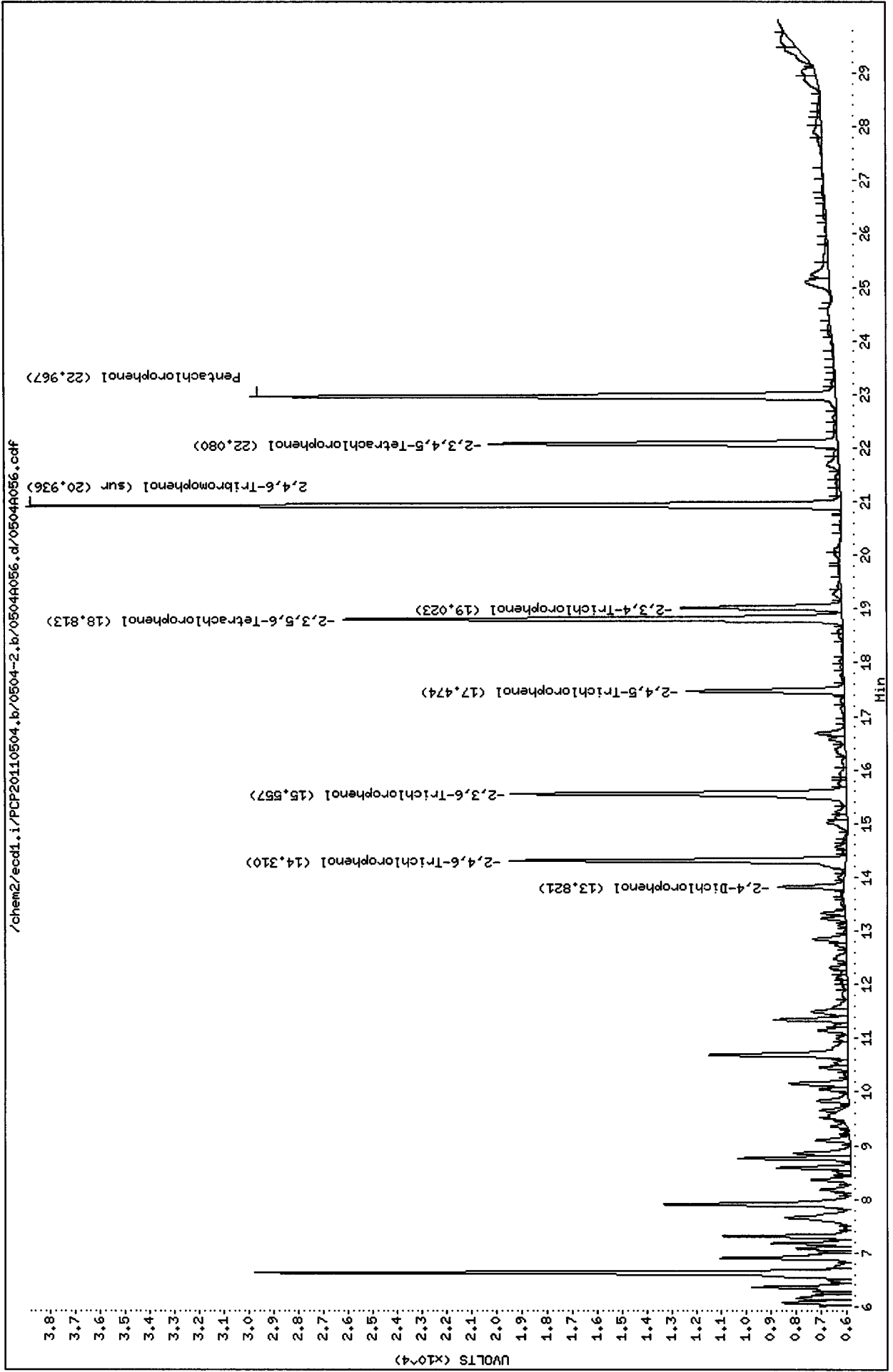


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Date: 05-MAY-2011 18:21
Client ID: LL-SB4-2-4-0419 MSD
Sample Info: SS71IMSD

Instrument: ecd1.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP2



Data File: /chem2/ecdl1.i/PCP20110504.b/0504-1.b/0504A056.d

Date : 05-MAY-2011 18:21

Client ID: LL-SB4-2-4-0419 MSD

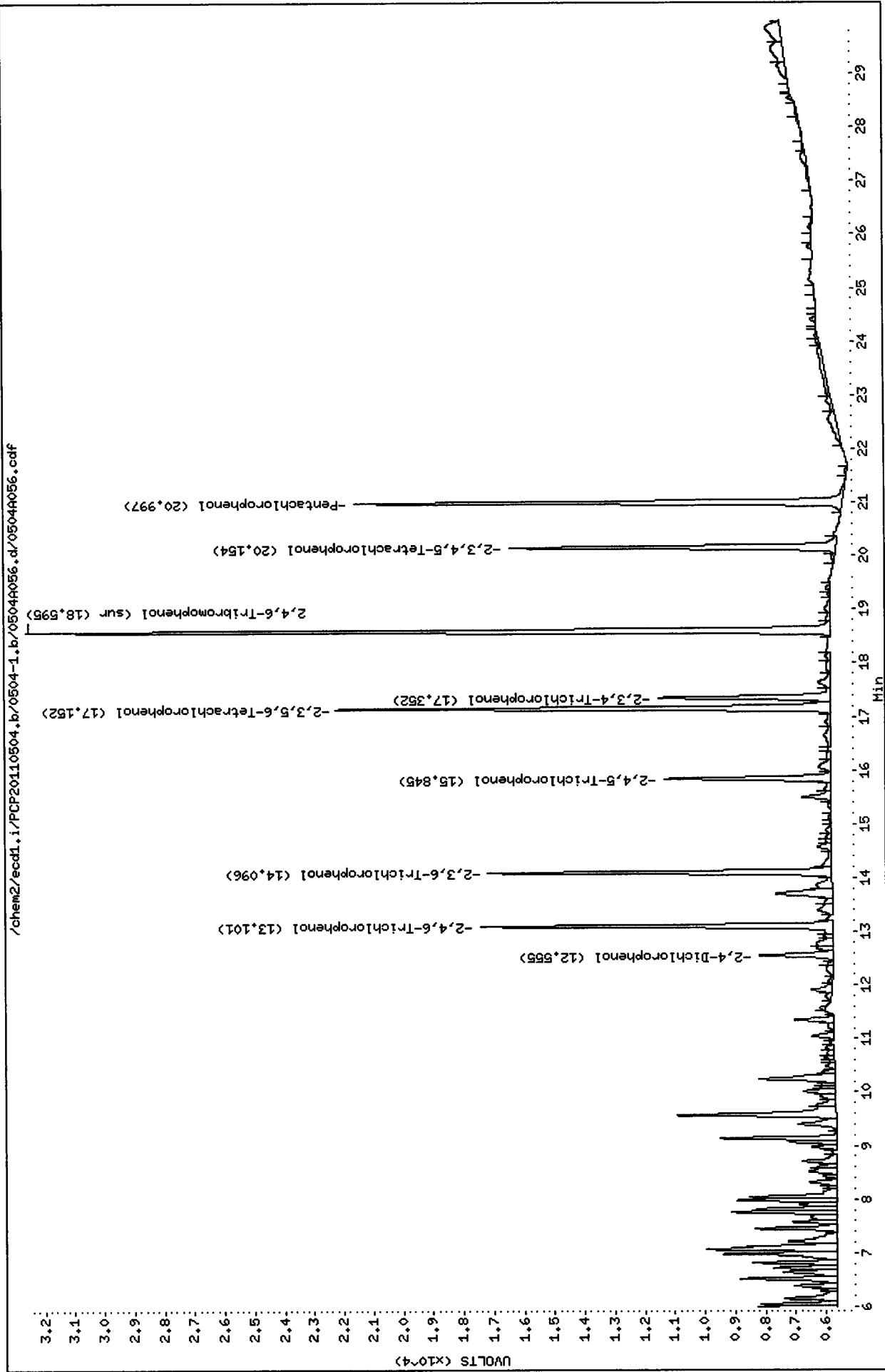
Sample Info: SS711MSD

Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



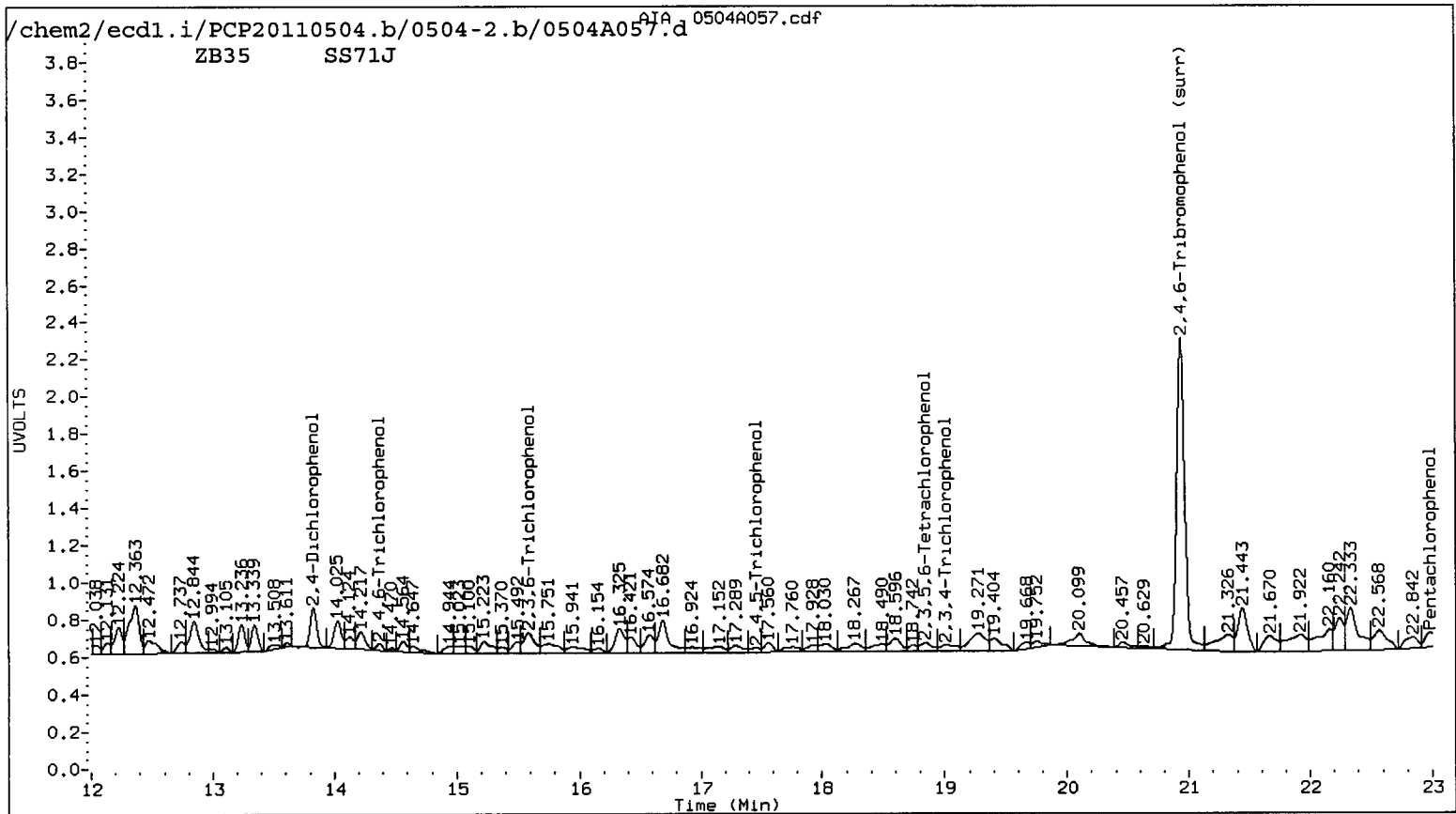
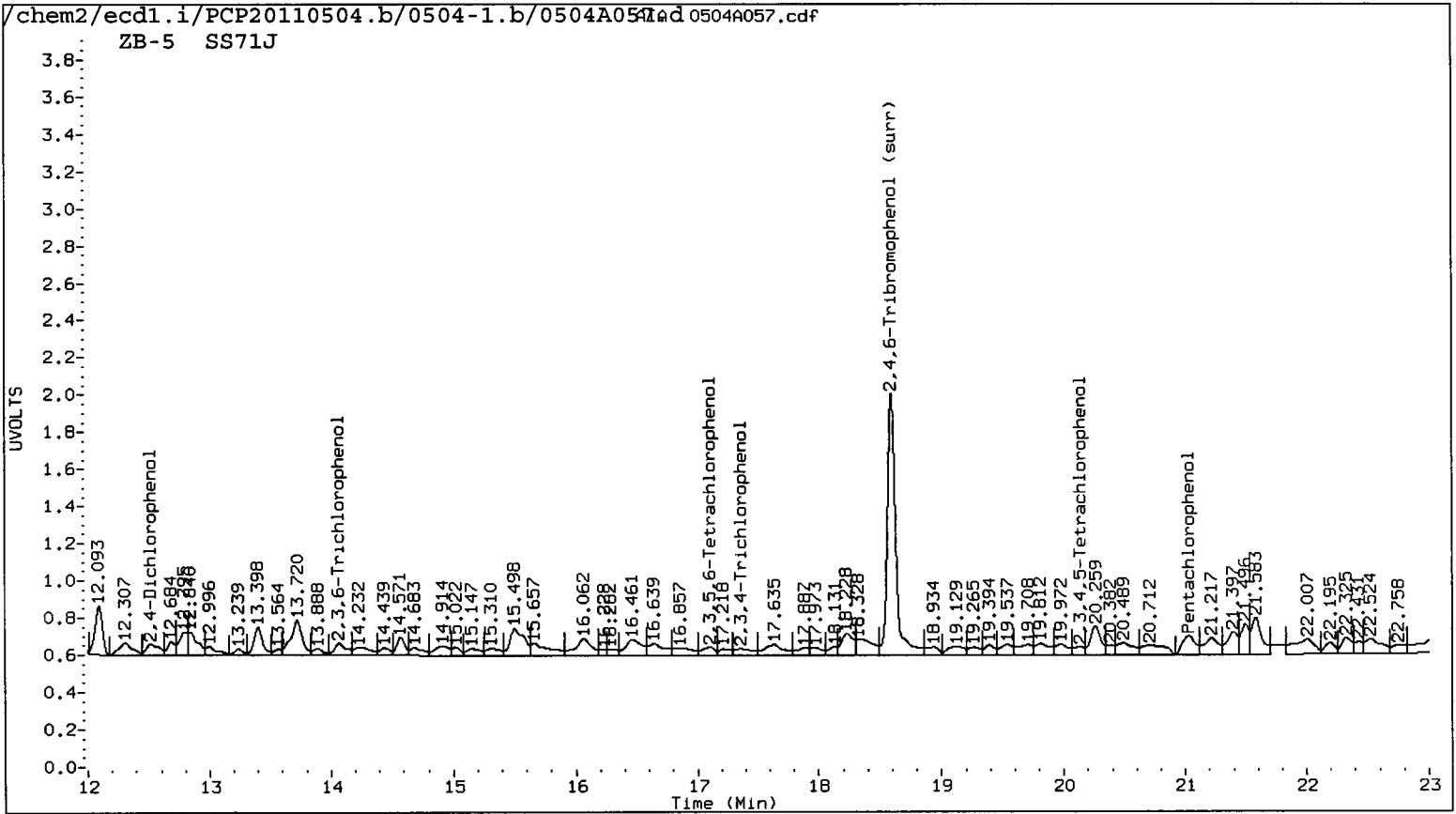
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

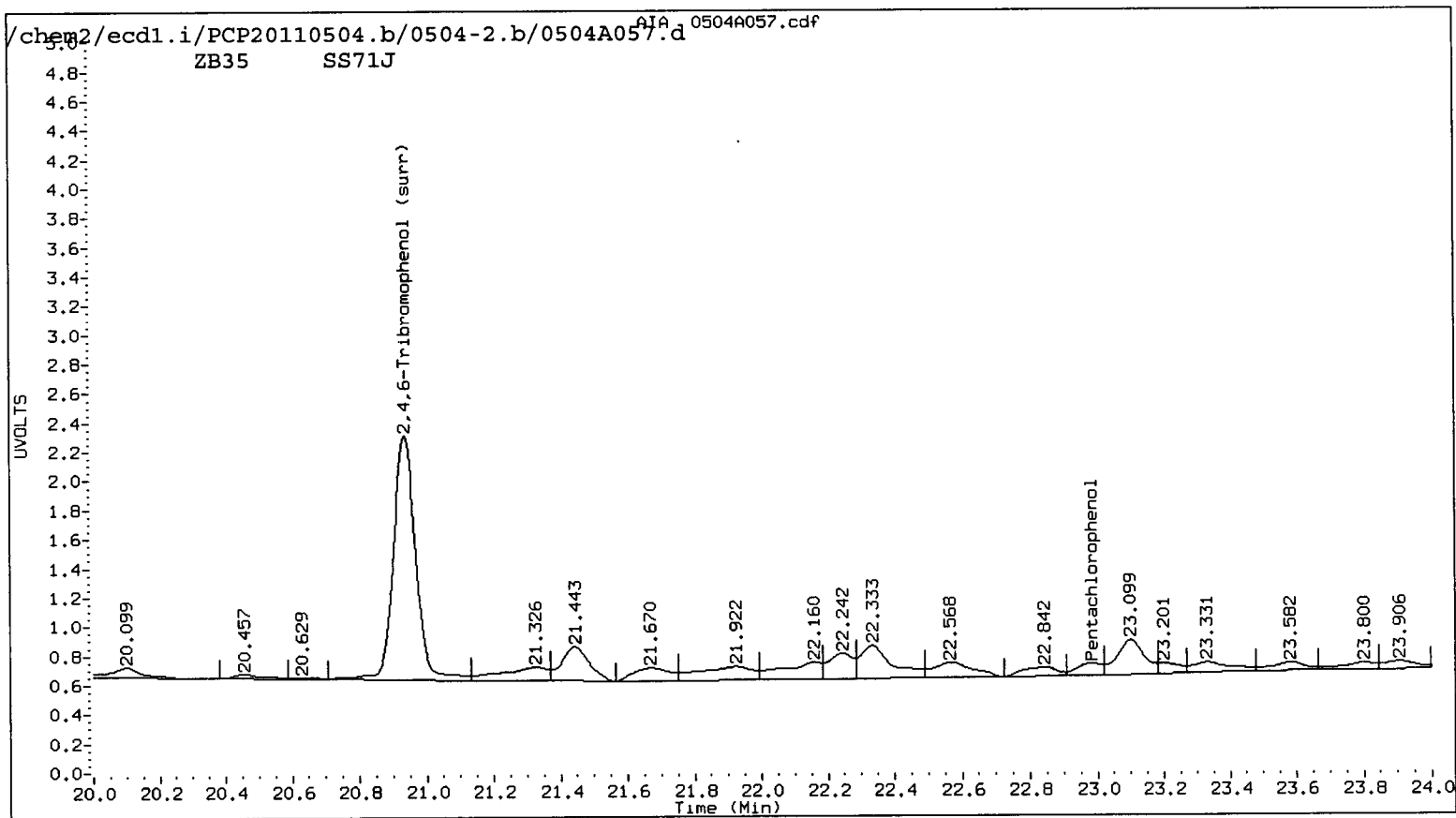
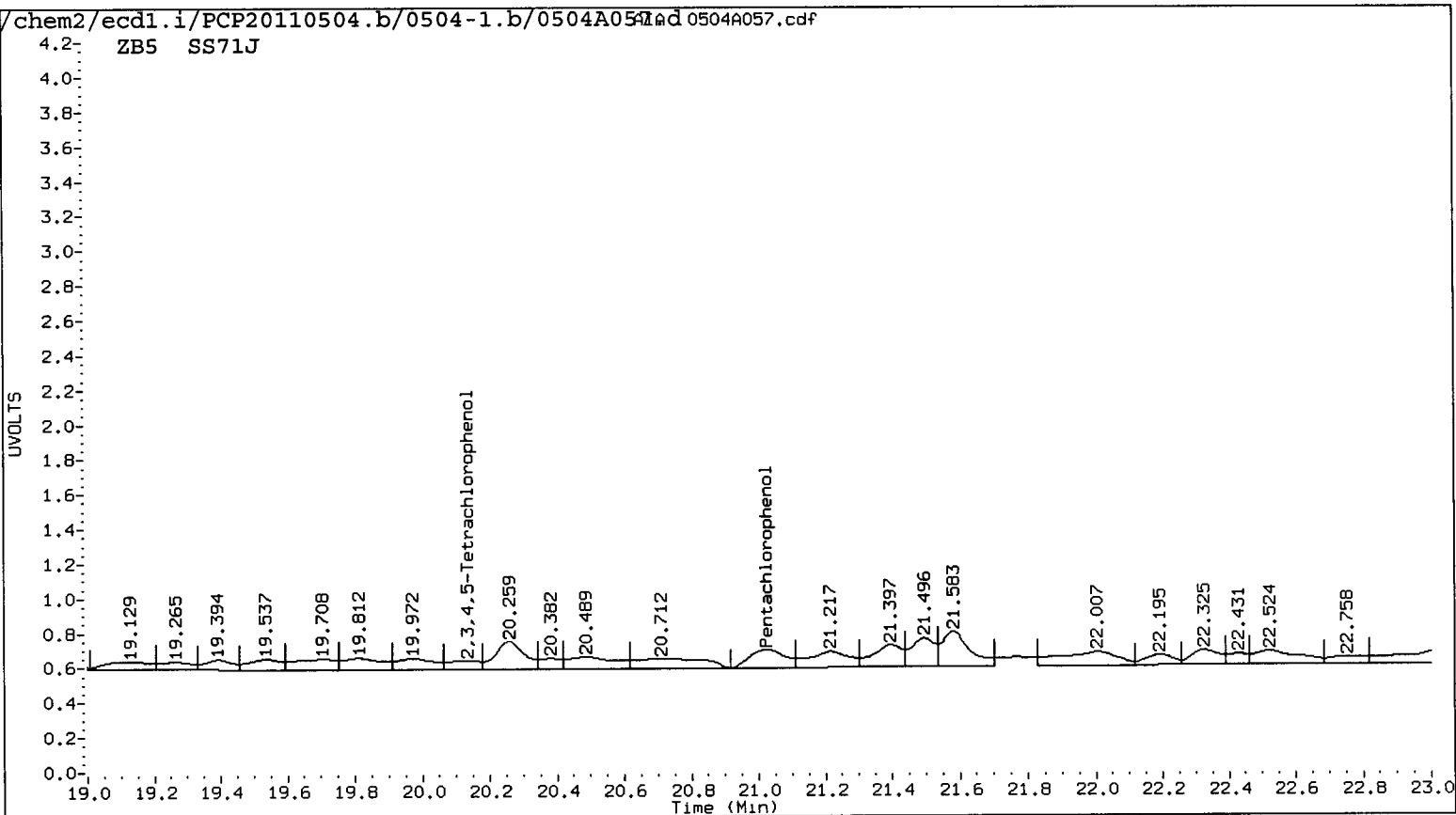
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A057.d Client ID: LL-SB3-0-0.5-041911
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 18:57
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.026	0.029	37576	22.982	0.015	20505	1.8649	0.7281	87.7*	Pentachlorophenol
----			14.370	0.059	6323	0.0000	0.4363	---	2,4,6-Trichlorophenol
14.064	-0.033	21826	15.583	0.026	32845	1.9058	2.2852	18.1	2,3,6-Trichlorophenol
----			17.456	-0.018	6098	0.0000	0.7533	---	2,4,5-Trichlorophenol
17.356	0.005	18234	19.007	-0.016	16805	2.1824	1.6170	29.8	2,3,4-Trichlorophenol
17.103	-0.050	16145	18.840	0.026	16327	0.9550	0.7443	24.8	2,3,5,6-Tetrachlorophenol
20.133	-0.022	14763	----			1.1372	0.0000	---	2,3,4,5-Tetrachlorophenol
12.516	-0.039	22173	13.826	0.006	39856	28.2120	47.5422	51.0*	2,4-Dichlorophenol
18.595	-0.001	341290	20.936	0.000	385847	21.7	18.4	16.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	86.7	73.4





Data File: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A057.d

Date : 05-MAY-2011 18:57

Client ID: LL-SB3-0-0.5-041911

Sample Info: S571J

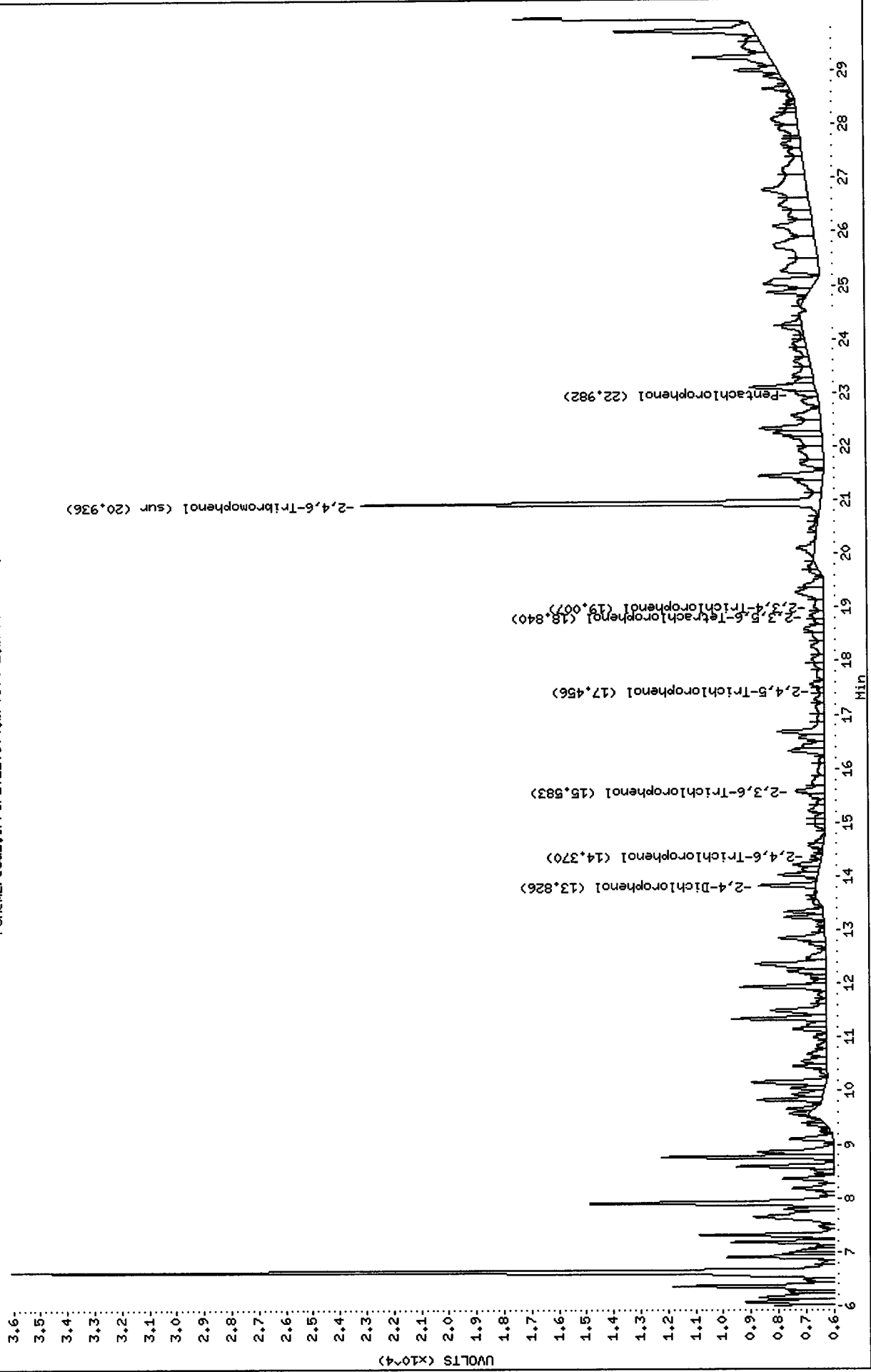
Instrument: ecdl.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

/chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A057.d/0504A057.cdf



Data File: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A057.d

Date : 05-MAY-2011 18:57

Client ID: LL-SB3-0-0.5-041911

Sample Info: SS71J

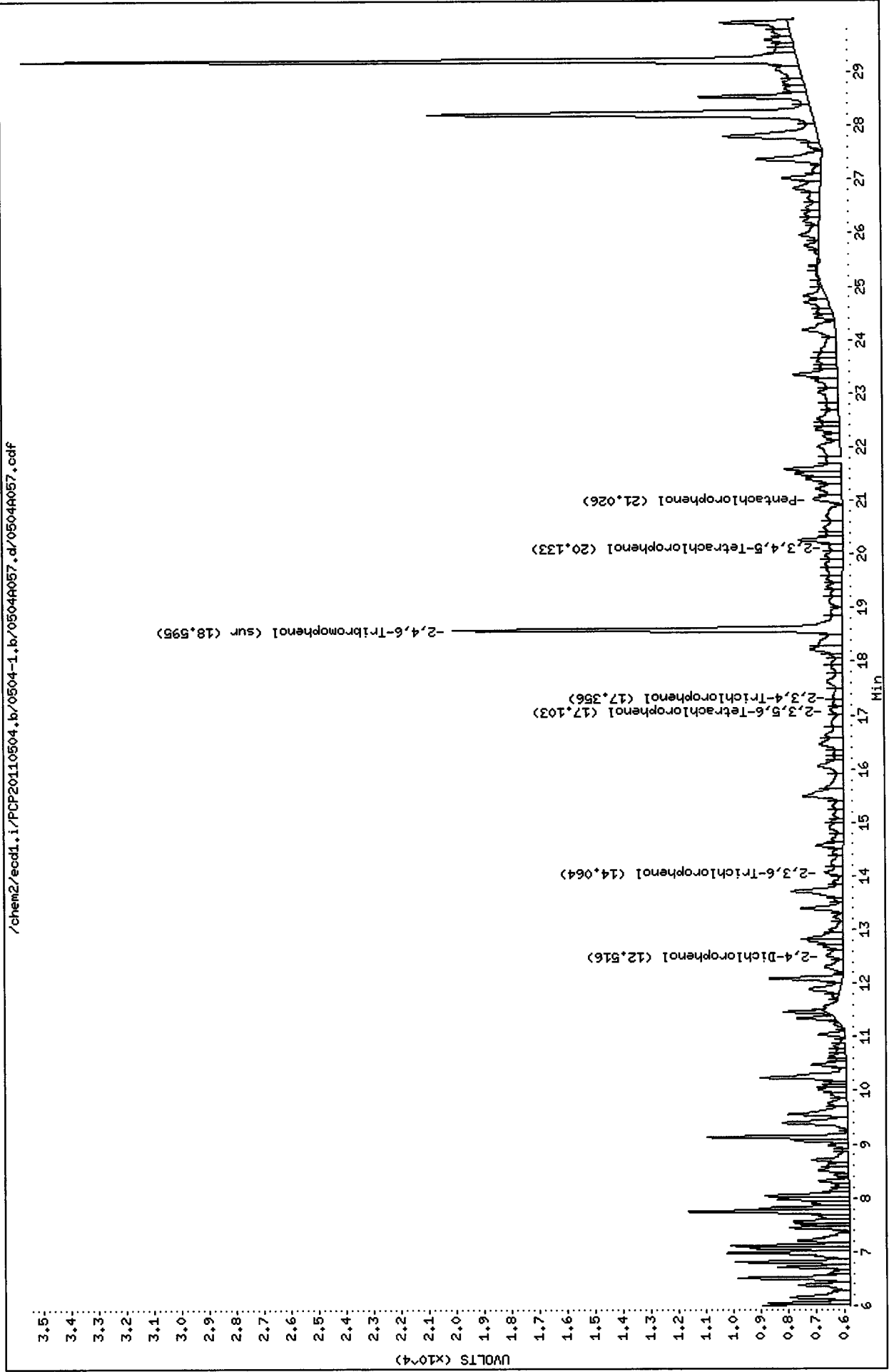
Instrument: ecdl.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1

/chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A057.d/0504A057.cdf



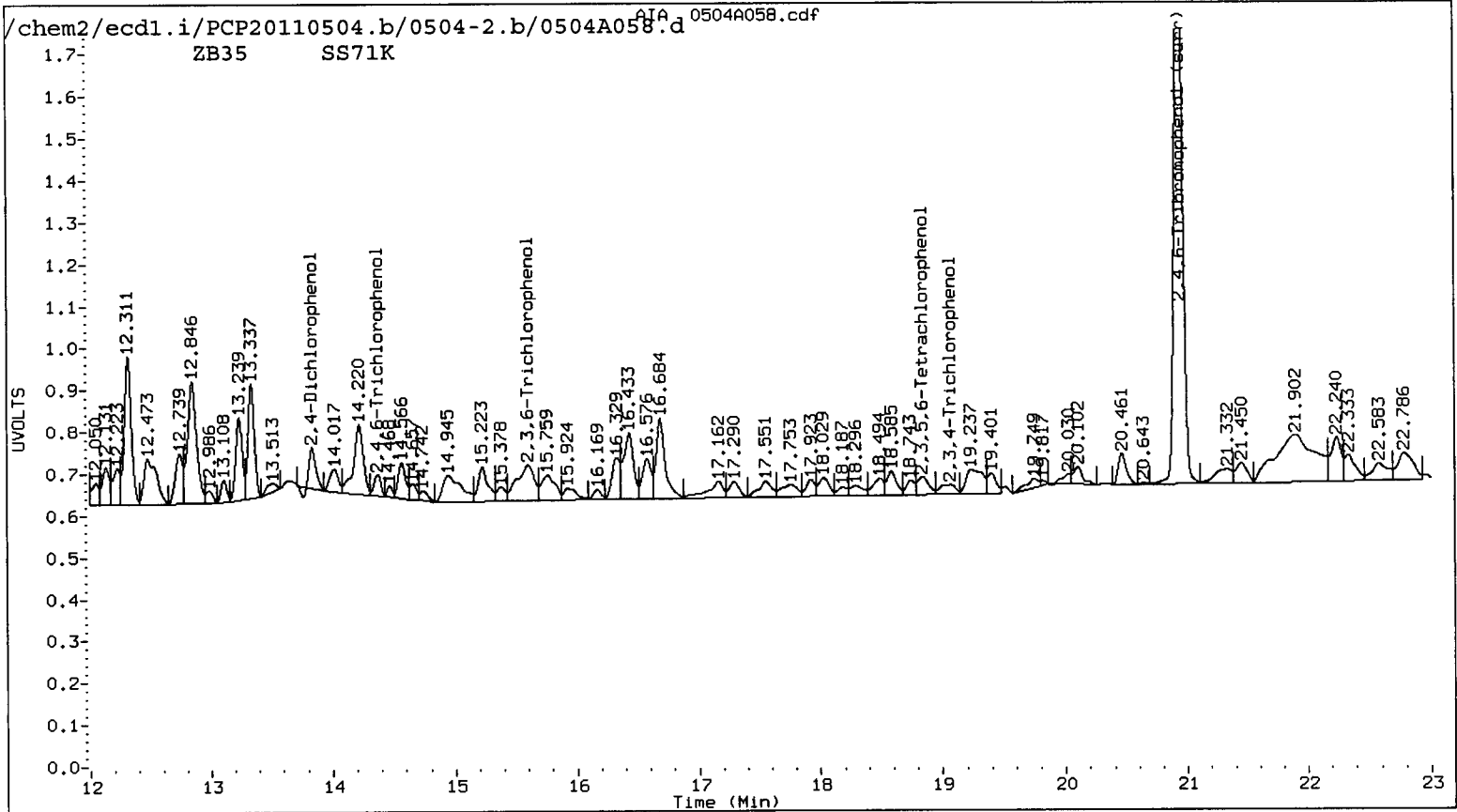
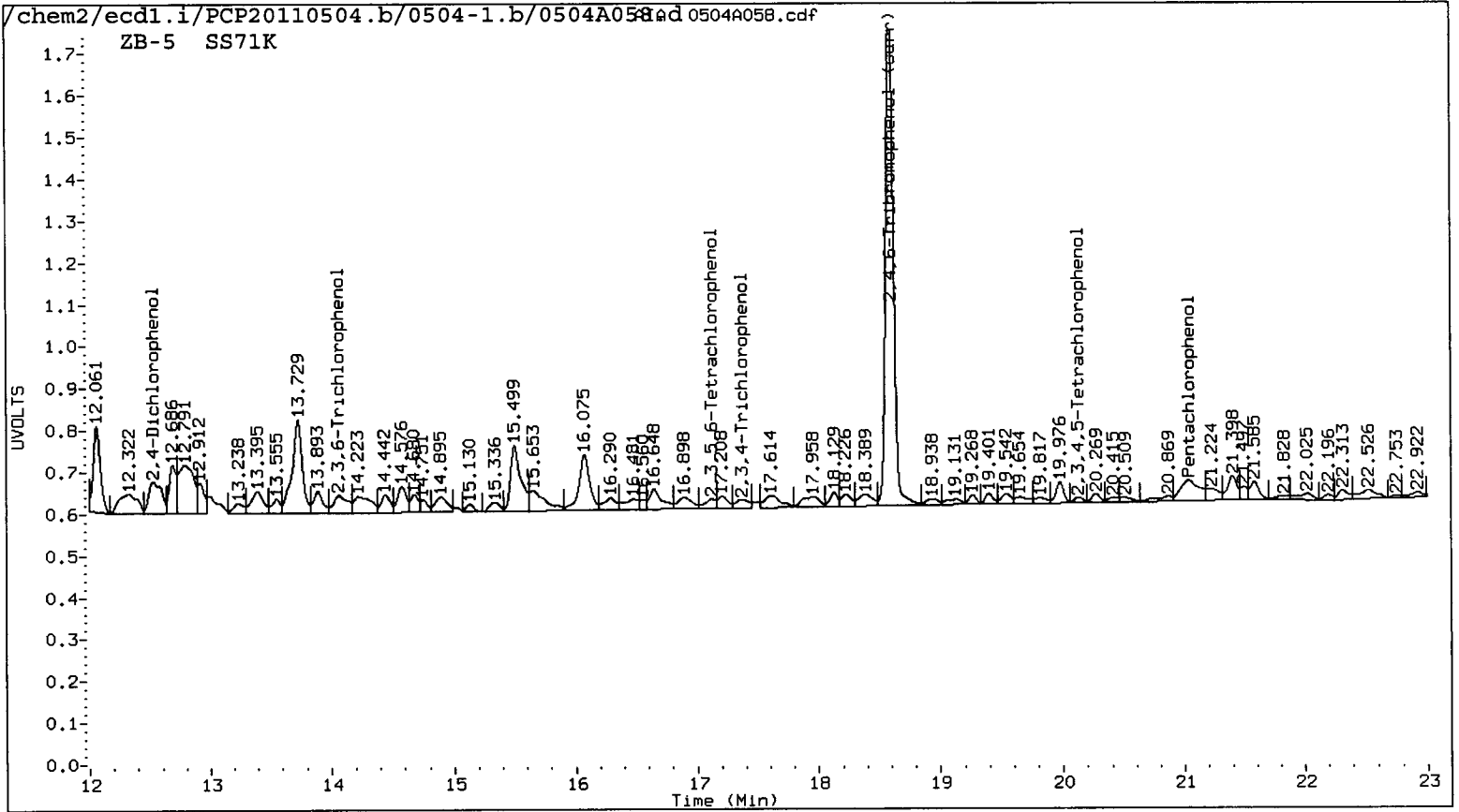
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

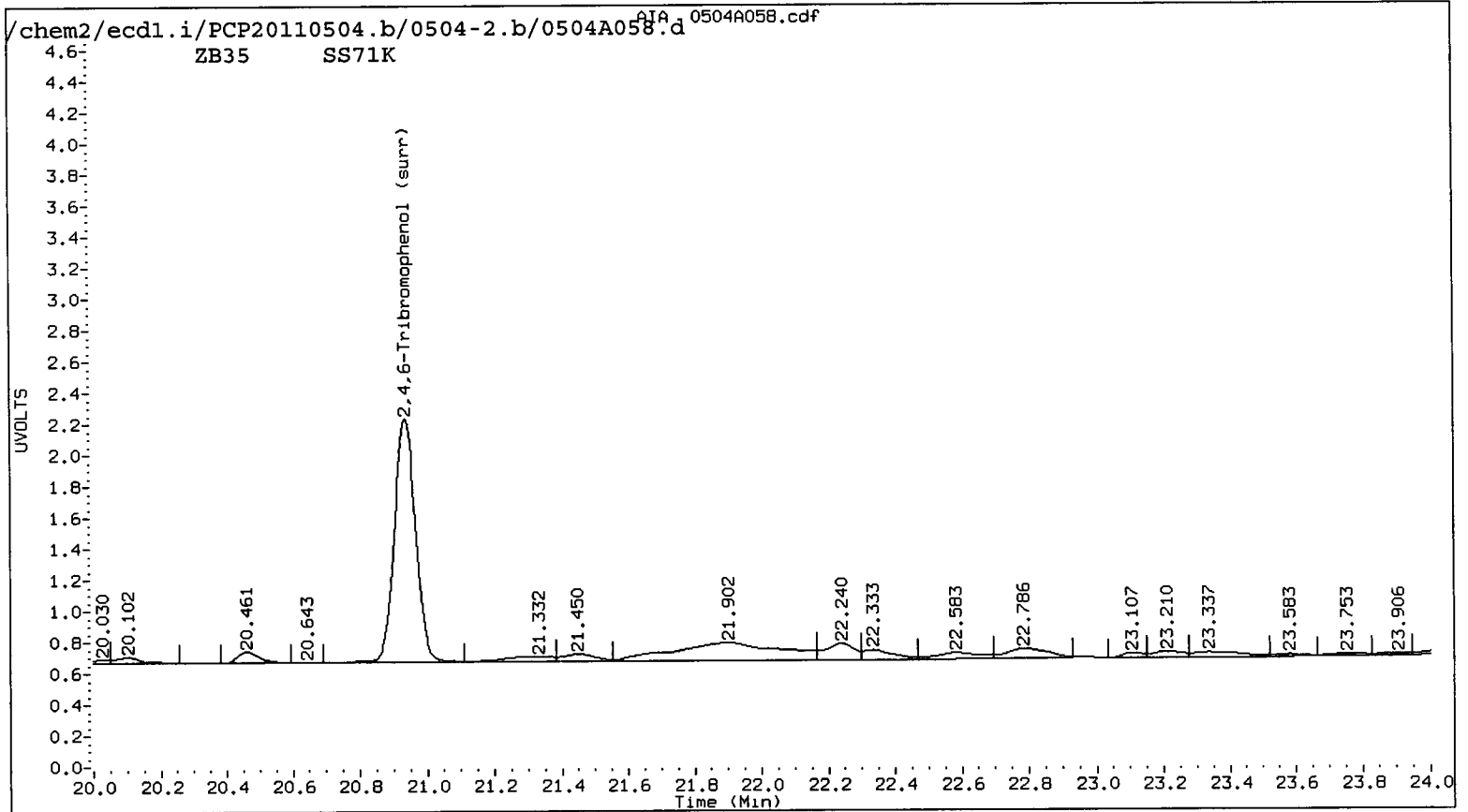
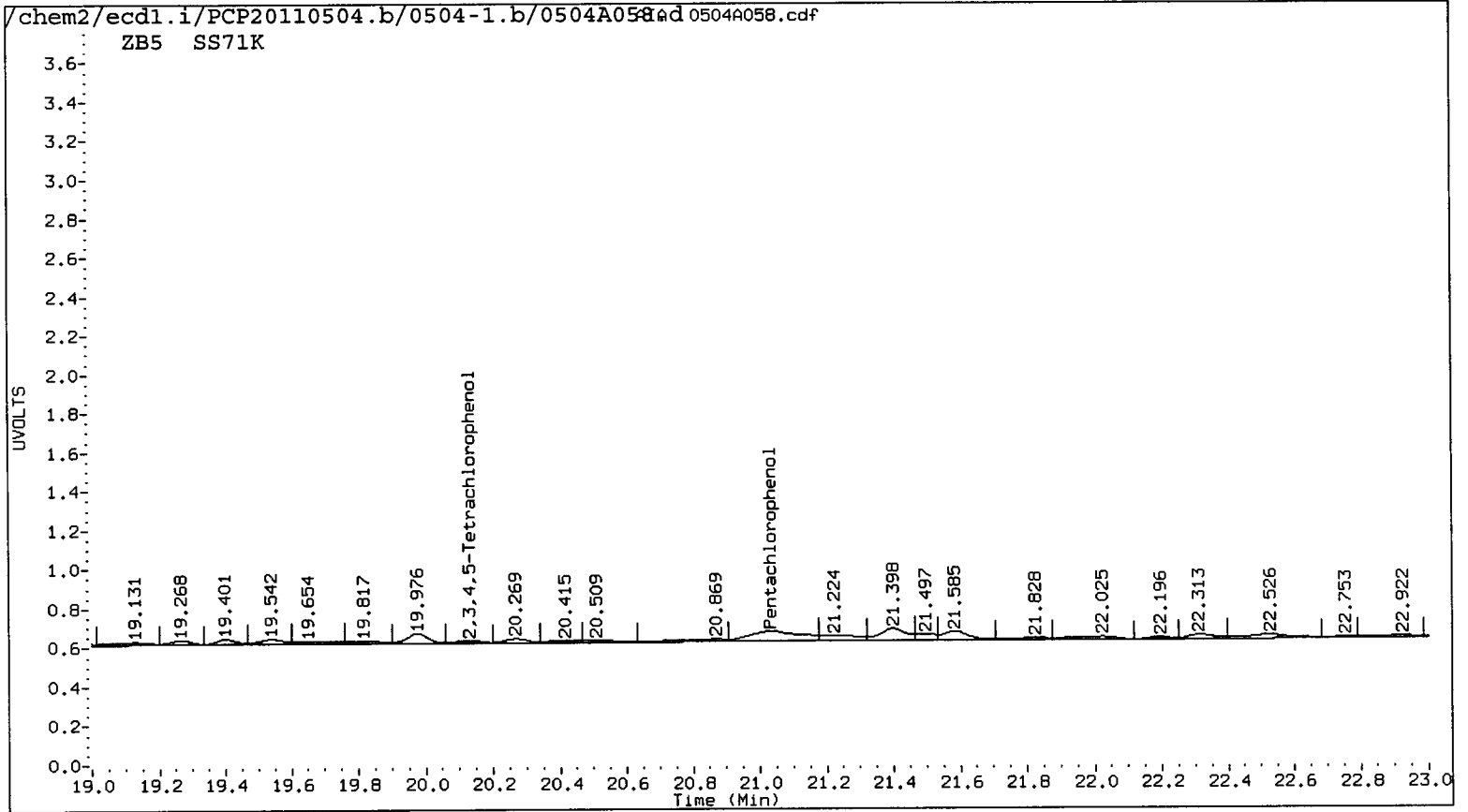
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A058.d Client ID: LL-SB3-1.5-2-041911
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 19:34
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.035	0.038	26743	----			1.3273	0.0000	---	Pentachlorophenol
----			14.371	0.060	9447	0.0000	0.6518	---	2,4,6-Trichlorophenol
14.065	-0.032	16242	15.598	0.041	41585	1.4182	2.8933	68.4*	2,3,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,4,5-Trichlorophenol
17.371	0.020	7468	19.069	0.046	9847	0.8938	0.9433	5.4	2,3,4-Trichlorophenol
17.124	-0.029	6769	18.840	0.026	13825	0.4004	0.6302	44.6*	2,3,5,6-Tetrachlorophenol
20.130	-0.025	3419	----			0.2634	0.0000	---	2,3,4,5-Tetrachlorophenol
12.524	-0.031	28097	13.837	0.017	16338	36.0429	18.8300	62.7*	2,4-Dichlorophenol
18.596	0.000	270051	20.936	0.000	344422	17.2	16.4	4.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	68.6	65.5





Data File: /chem2/ecdl1.i/PCP20110504.b/0504-2.b/0504A058.d

Date : 05-MAY-2011 19:34

Client ID: LL-SB3-1.5-2-041911

Sample Info: SS71K

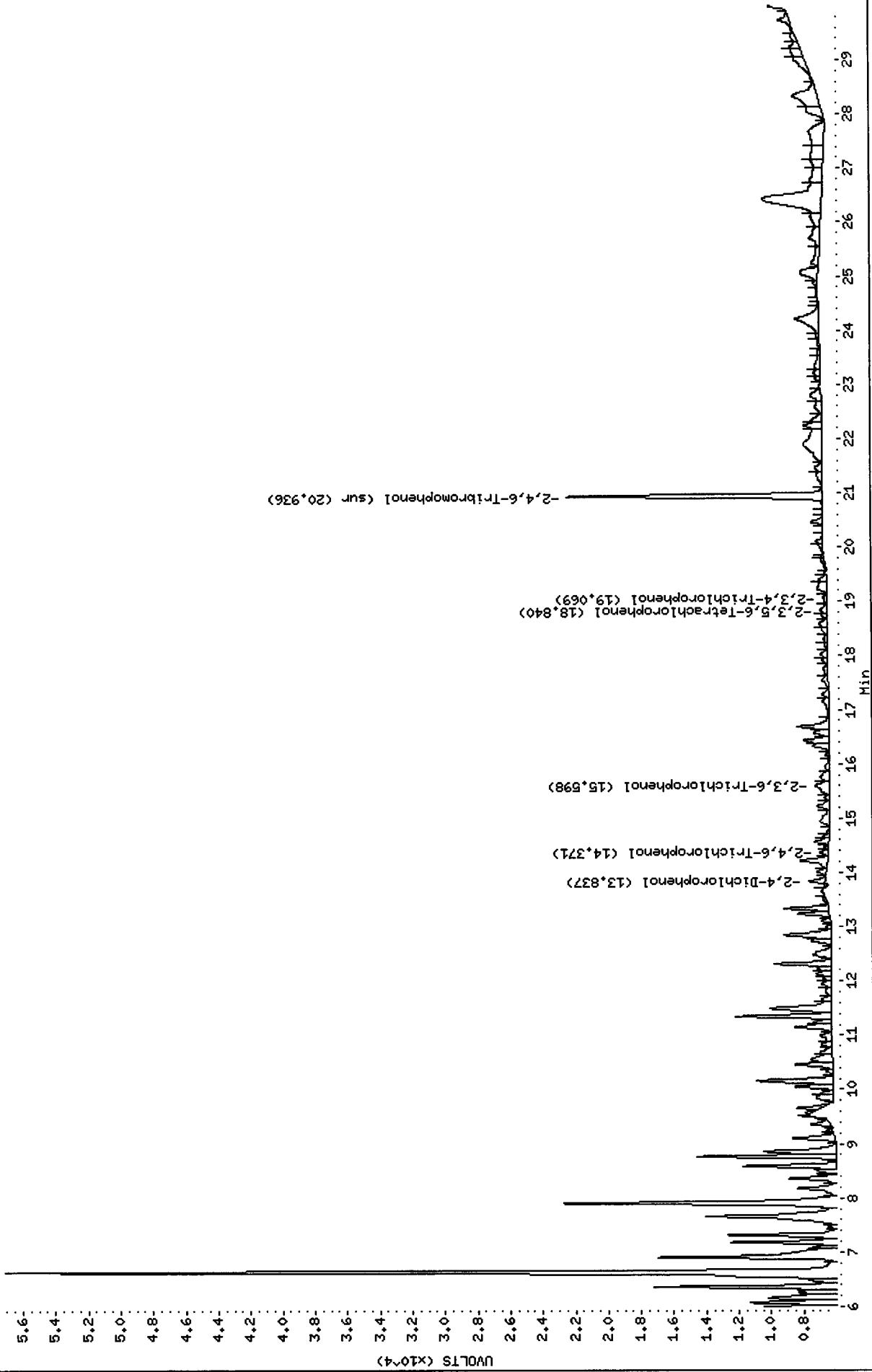
Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

/chem2/ecdl1.i/PCP20110504.b/0504-2.b/0504A058.d/0504A058.cdf



Data File: /chem2/ecdl1.i/PCP20110504.b/0504-1.b/0504A058.d

Date : 05-MAY-2011 19:34

Client ID: LL-SB3-1.5-2-041911

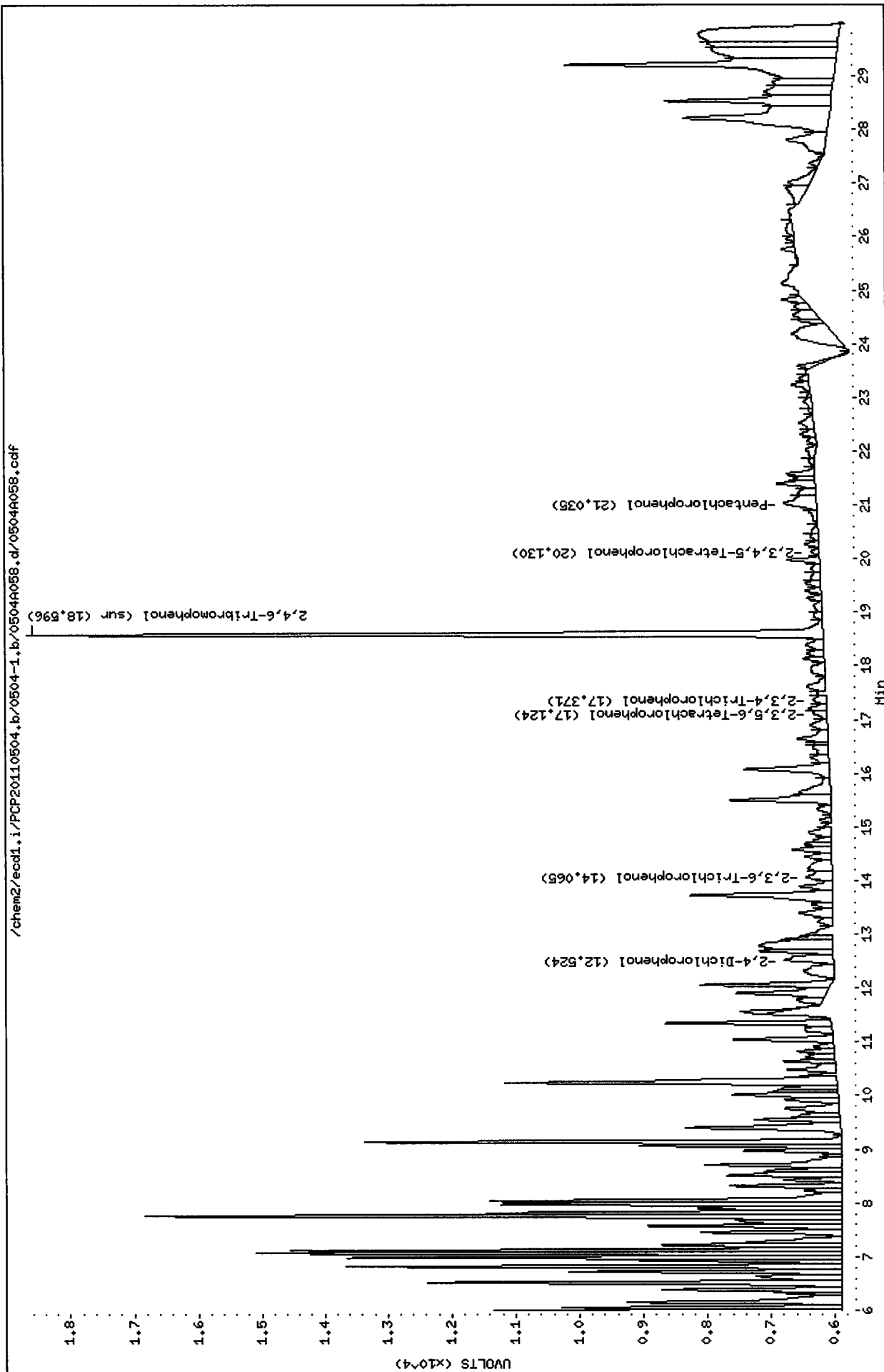
Sample Info: SS71K

Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



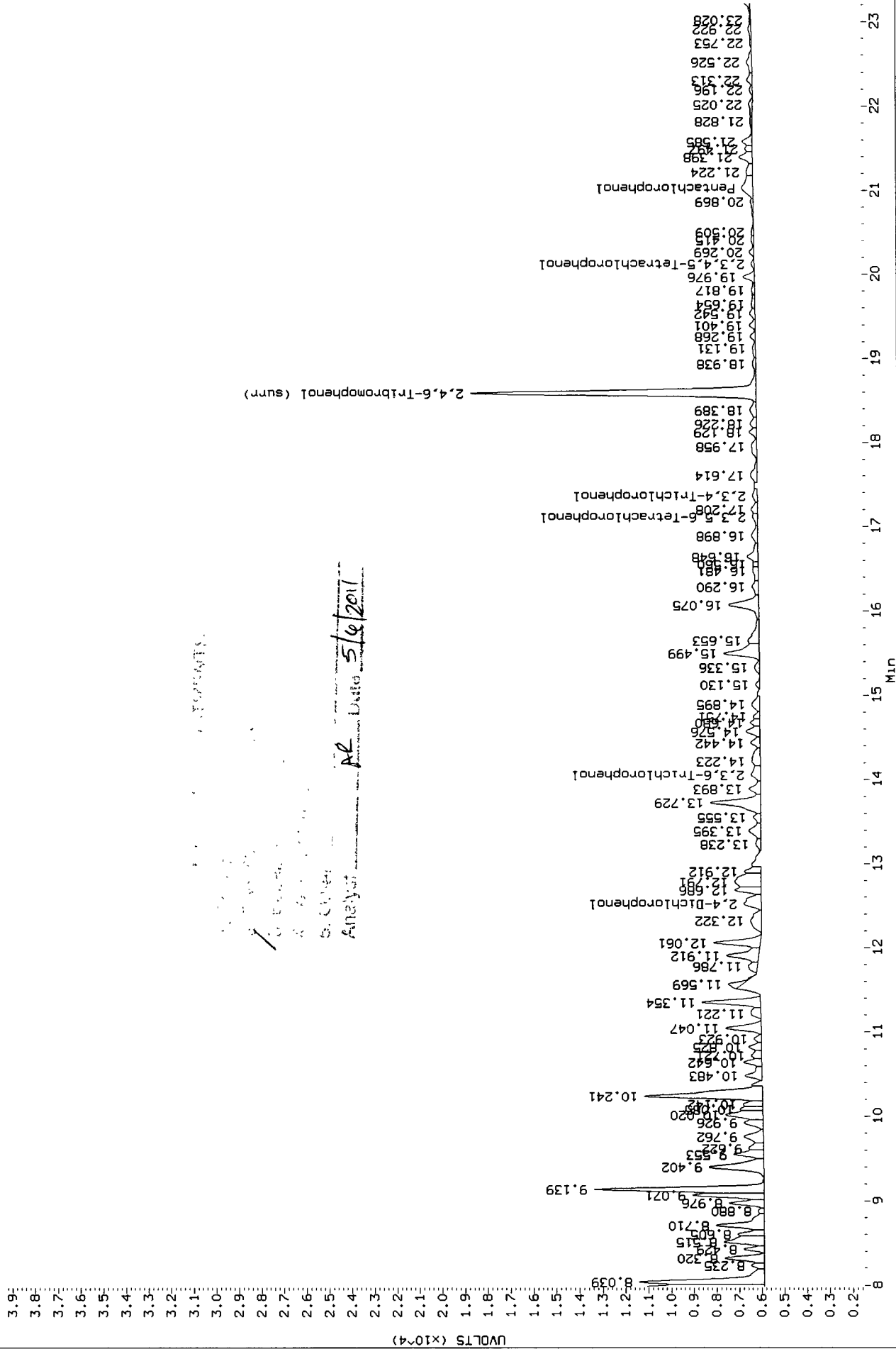
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Injection Date: 05-MAY-2011 19:34
Instrument: ecdl.i
Client Sample ID: LL-SB3-1.5-2-041911

AIA 0504A058.cdf: 10.338 to 25.574 Min



Data File: /chem2/ecdl1/PCP20110504.b/0504-1.b/0504A058.d/0504A058.cdf
 Injection Date: 05-MAY-2011 19:34
 Instrument: ecdl1
 Client Sample ID: LL-SB3-1.5-2-041911

AIA 0504A058.cdf: 7.987 to 23.223 Min



2,4,6-Tribromophenol (surr)

Analyst: AP Date: 5/6/2011

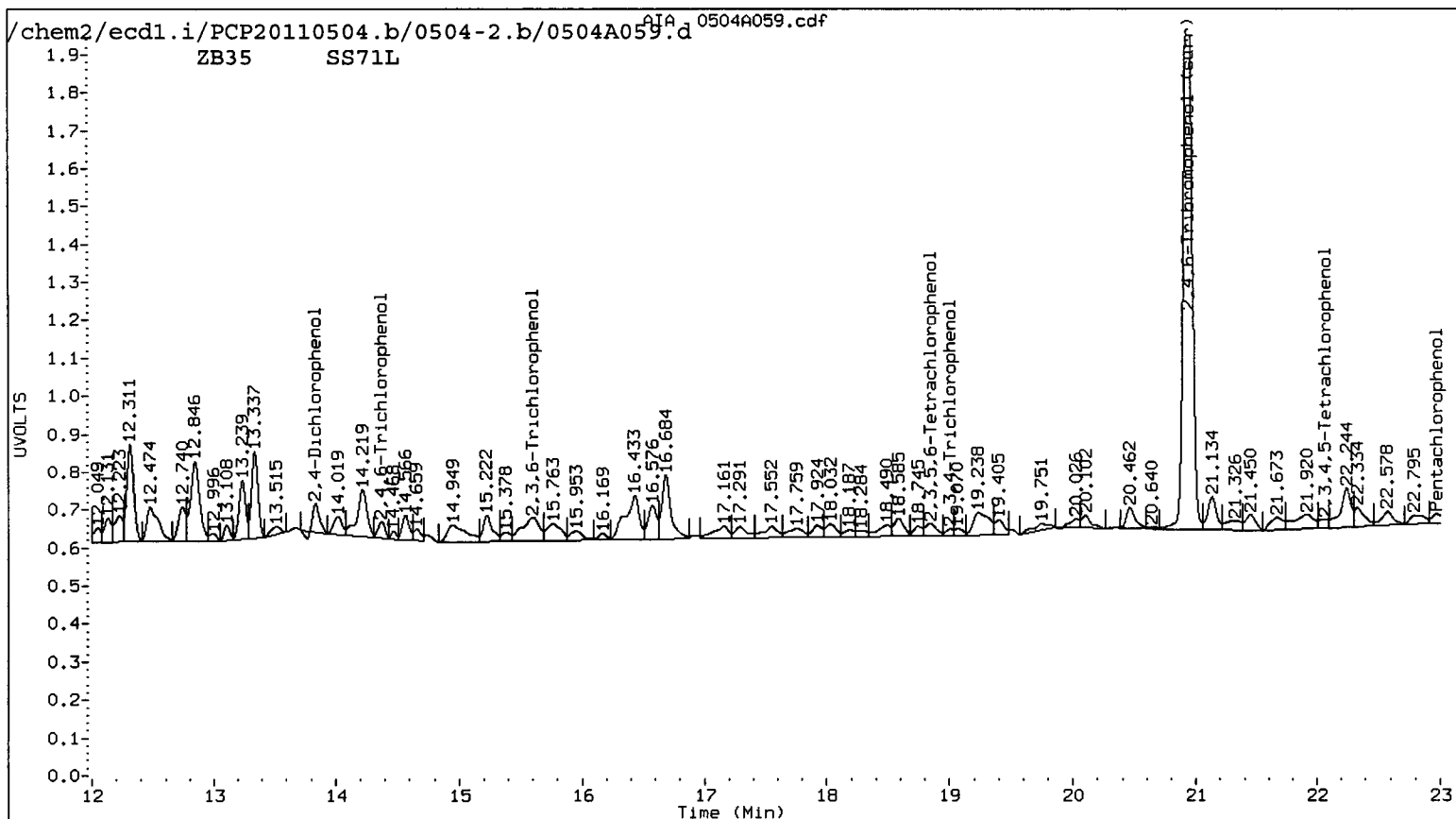
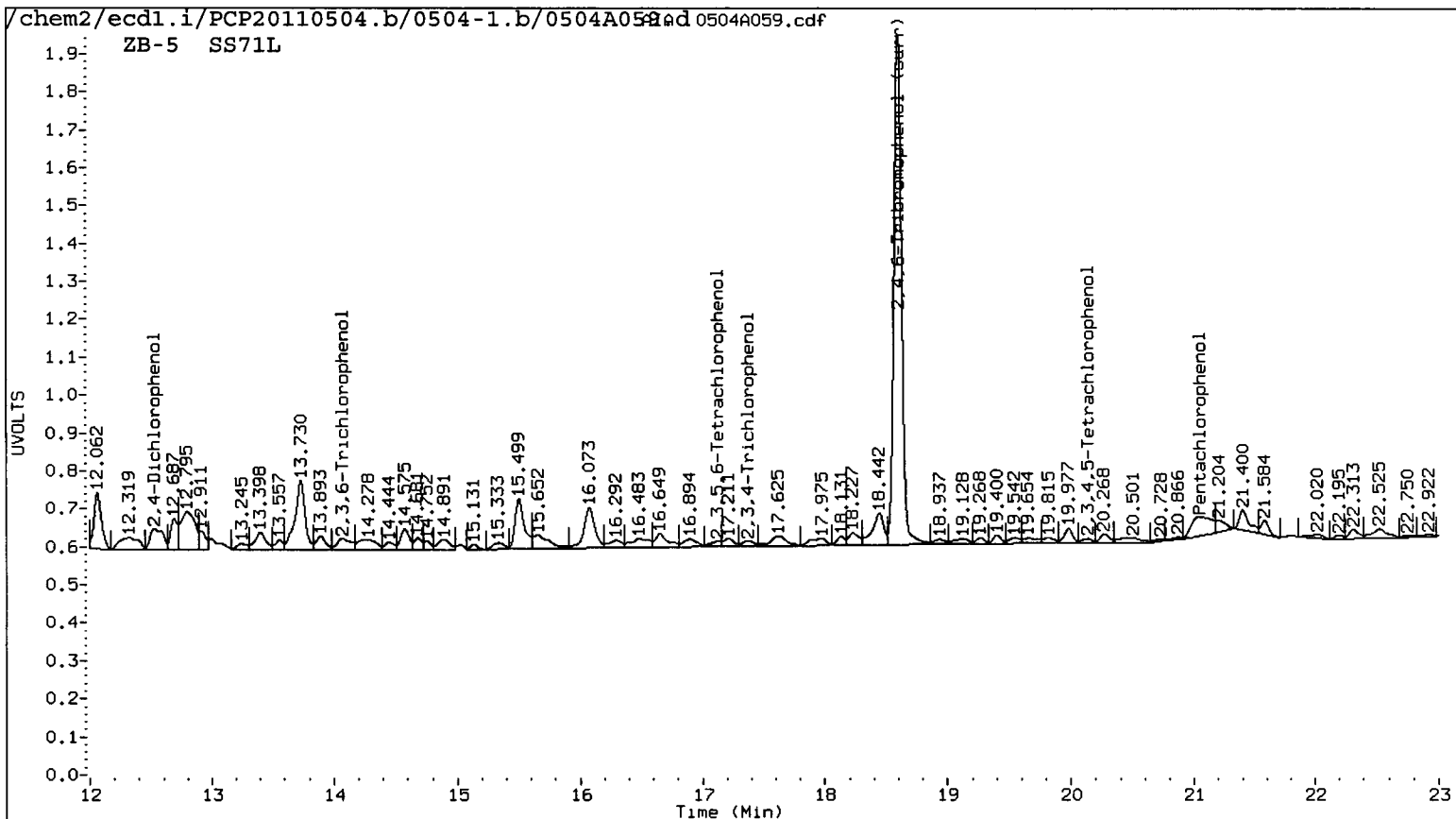
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

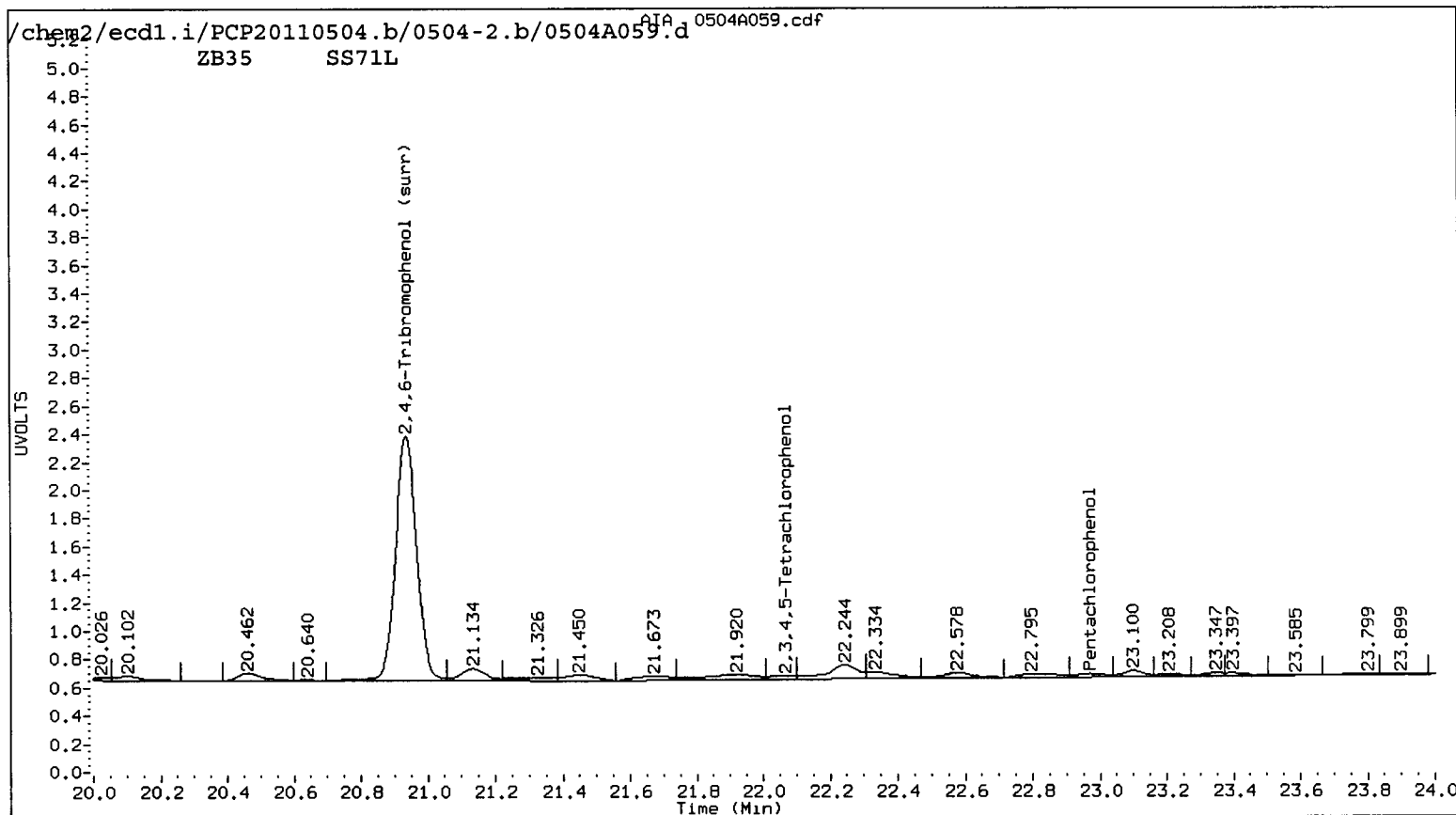
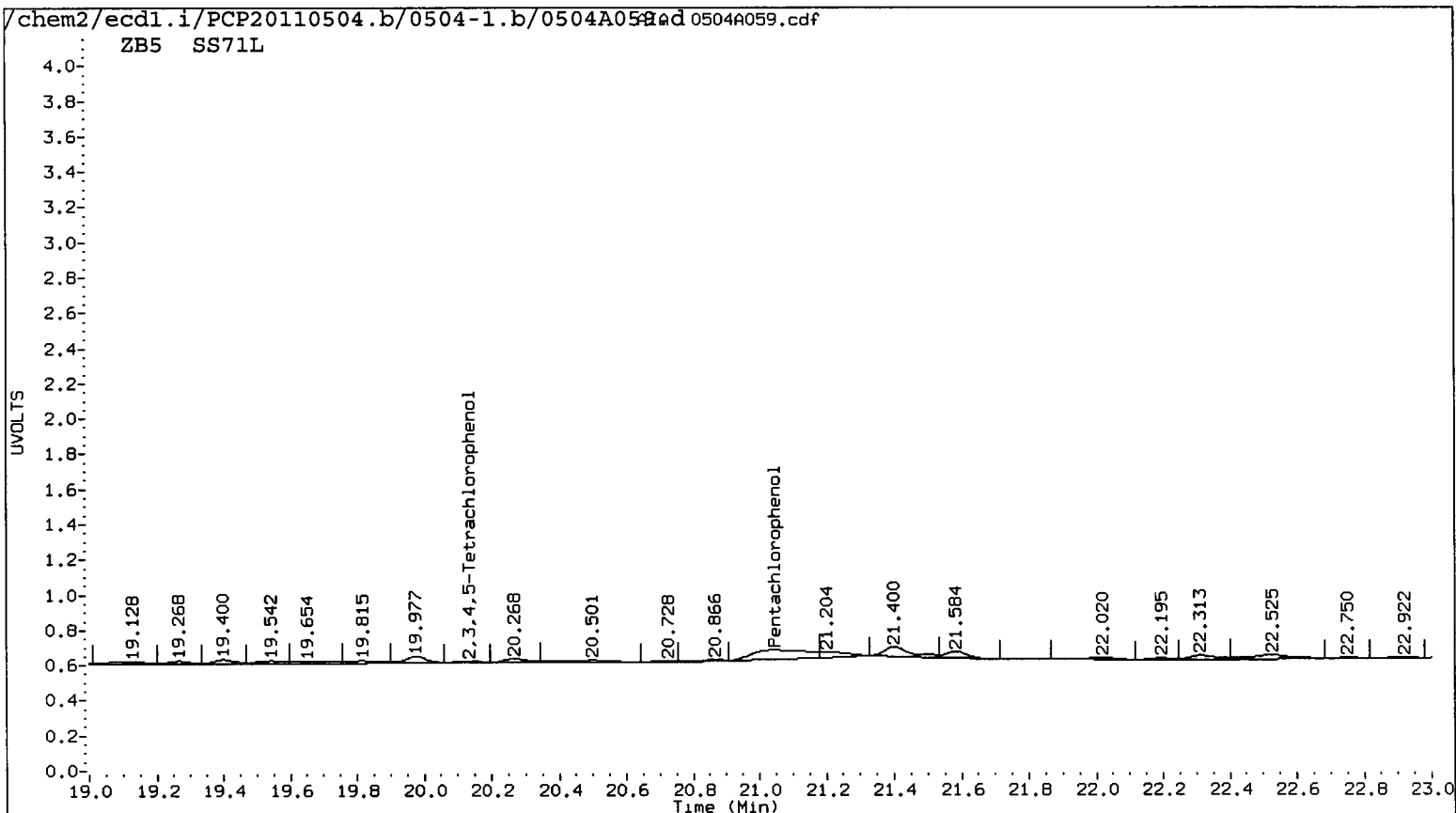
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A059.d Client ID: LL-SB3-2-4-041911
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 20:10
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.045	0.048	28858	22.970	0.003	7369	1.4322	0.2617	138.2*	Pentachlorophenol
----			14.372	0.061	8048	0.0000	0.5553	---	2,4,6-Trichlorophenol
14.066	-0.031	11457	15.598	0.041	30551	1.0004	2.1256	72.0*	2,3,6-Trichlorophenol
----			----			0.0000	0.0000	---	2,4,5-Trichlorophenol
17.367	0.016	4867	19.010	-0.013	3474	0.5825	0.3315	54.9*	2,3,4-Trichlorophenol
17.128	-0.025	4473	18.842	0.028	10434	0.2646	0.4757	57.0*	2,3,5,6-Tetrachlorophenol
20.132	-0.023	2961	22.066	-0.014	6400	0.2281	0.3743	48.5*	2,3,4,5-Tetrachlorophenol
12.524	-0.031	20022	13.837	0.017	13281	25.3992	15.2371	50.0*	2,4-Dichlorophenol
18.597	0.001	297652	20.936	0.000	384484	18.9	18.3	3.3	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	75.6	73.2





Data File: /chem2/ecd1.i/PCP20110504.b/0504-2.b/0504A059.d

Date : 05-MAY-2011 20:10

Client ID: LL-SB3-2-4-041911

Sample Info: SS71L

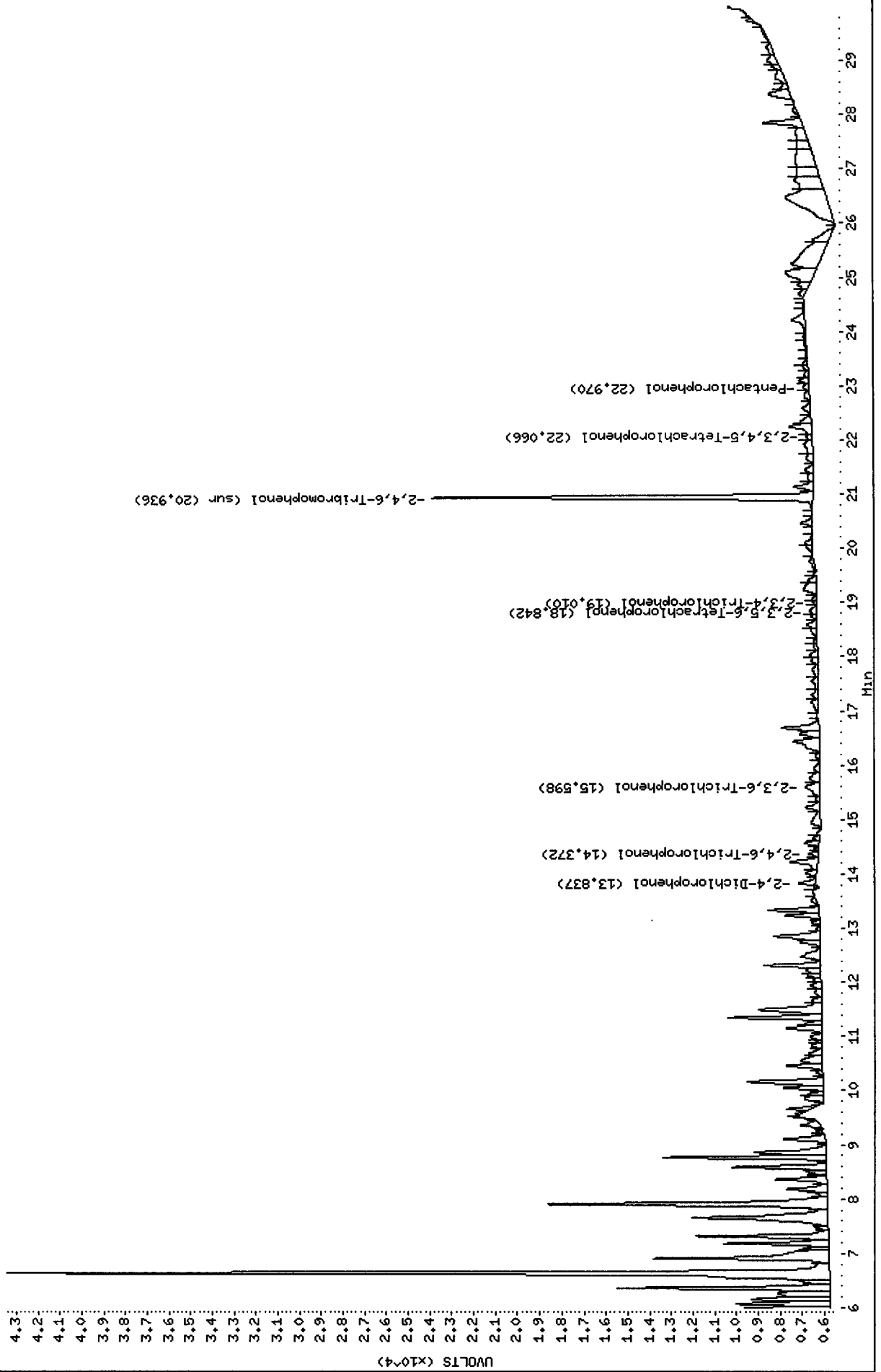
Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

/chem2/ecd1.i/PCP20110504.b/0504-2.b/0504A059.d/0504A059.cdf



Data File: /chem2/ecdl1.i/PCP20110504.b/0504-1.b/0504A059.d

Date : 05-MAY-2011 20:10

Client ID: LL-SB3-2-4-041911

Sample Info: SS71L

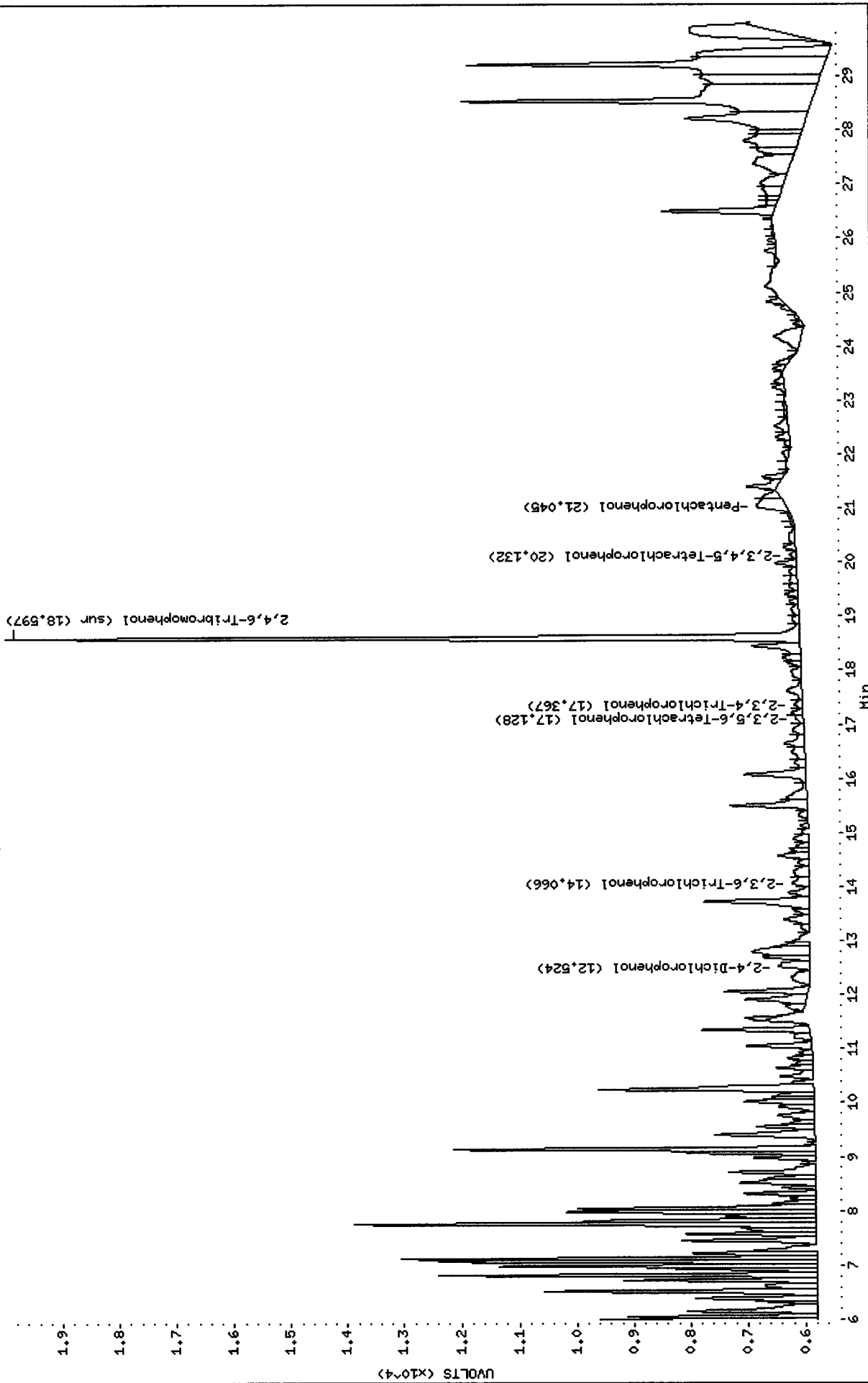
Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

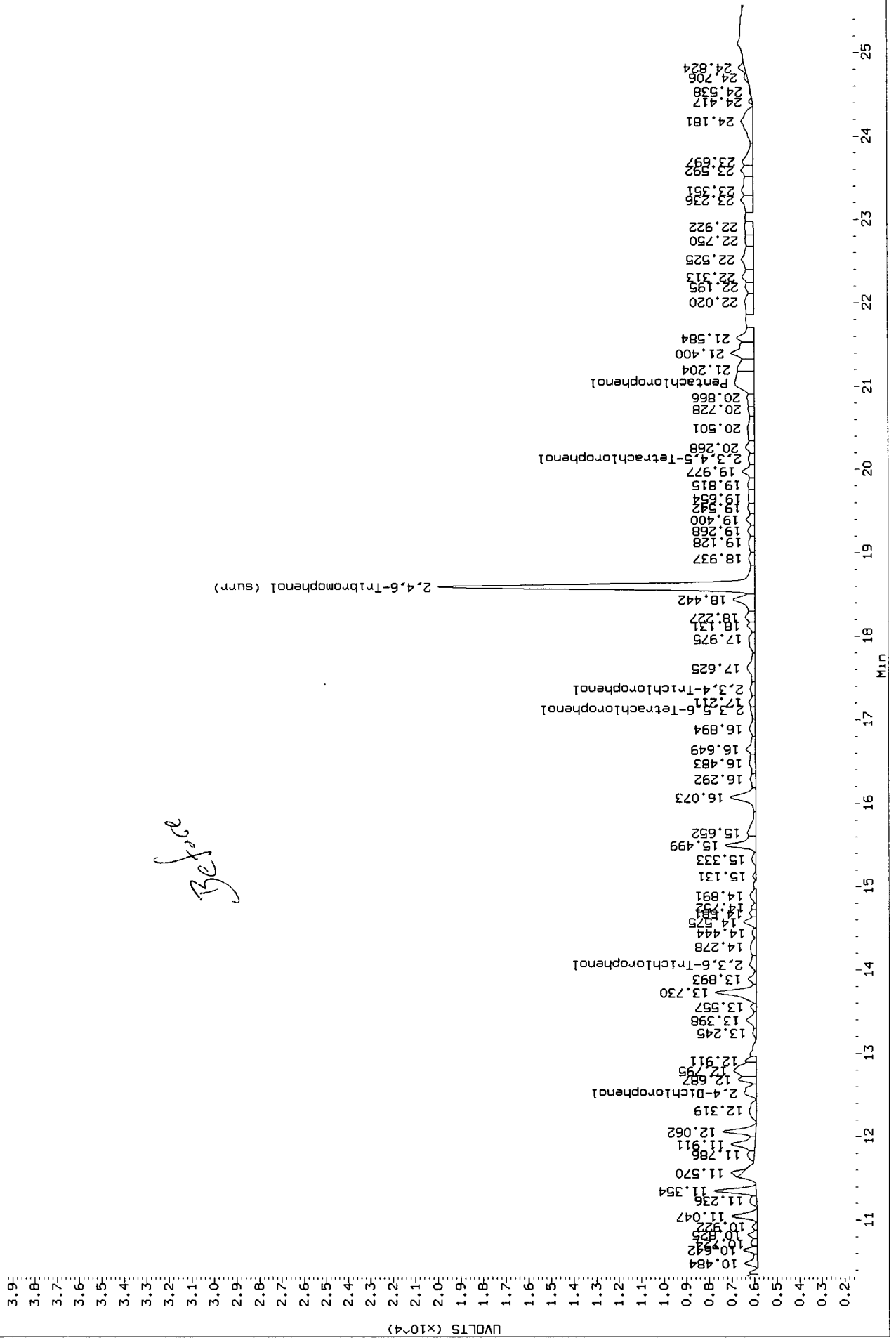
Column phase: STX CLP1

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Data File: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A059.d/0504A059.cdf
 Injection Date: 05-MAY-2011 20:10
 Instrument: ecdl.i
 Client Sample ID: LL-SB3-2-4-041911

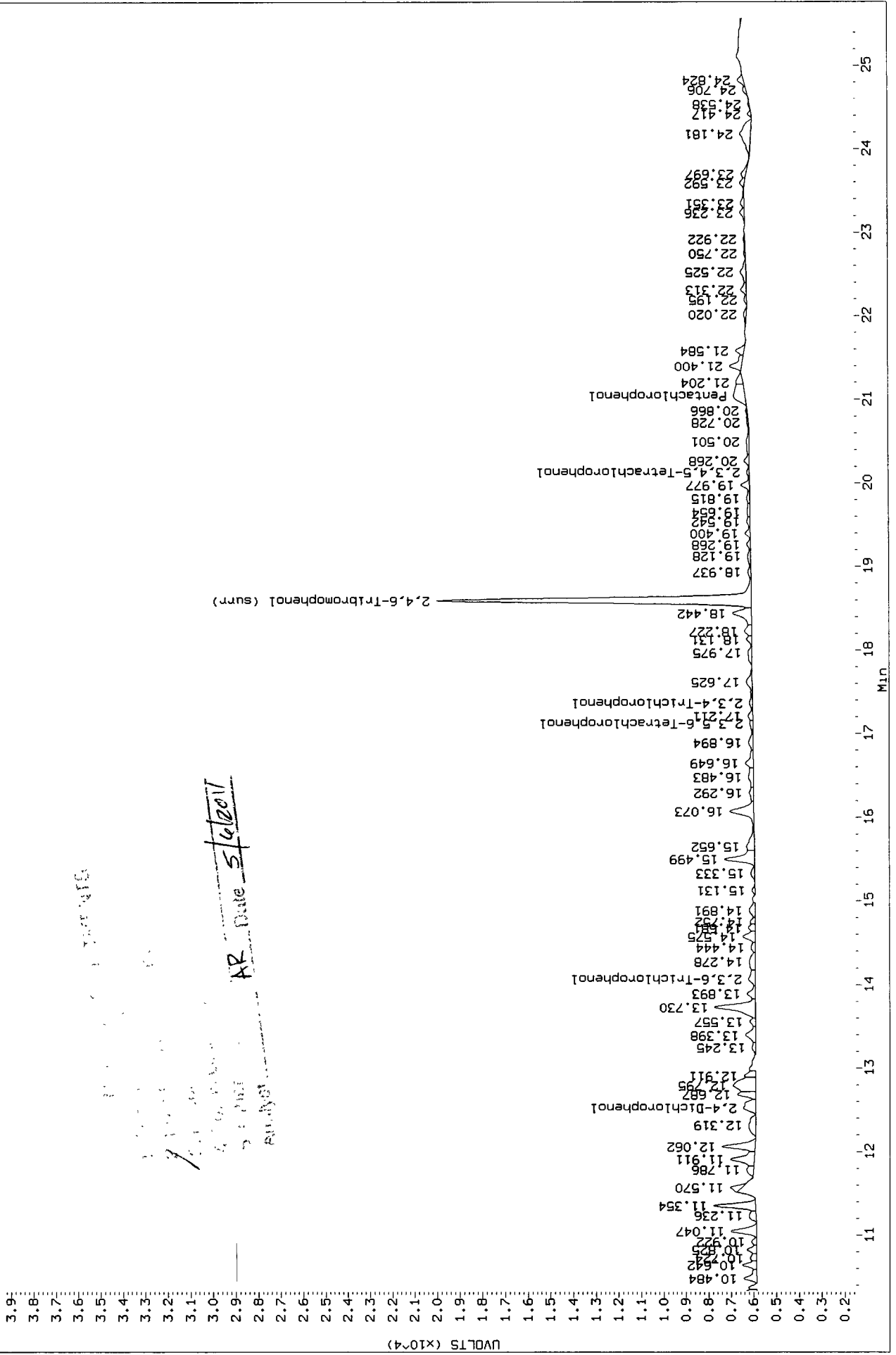
AIA 0504A059.cdf: 10.336 to 25.574 Min



Before

Data File: /chem2/ecdl1/PCP20110504.b/0504-1.b/0504A059.d/0504A059.cdf
 Injection Date: 05-MAY-2011 20:10
 Instrument: ecdl1
 Client Sample ID: LL-SB3-2-4-041911

AIA 0504A059.cdf: 10.337 to 25.565 Min



AP Date 5/6/2011

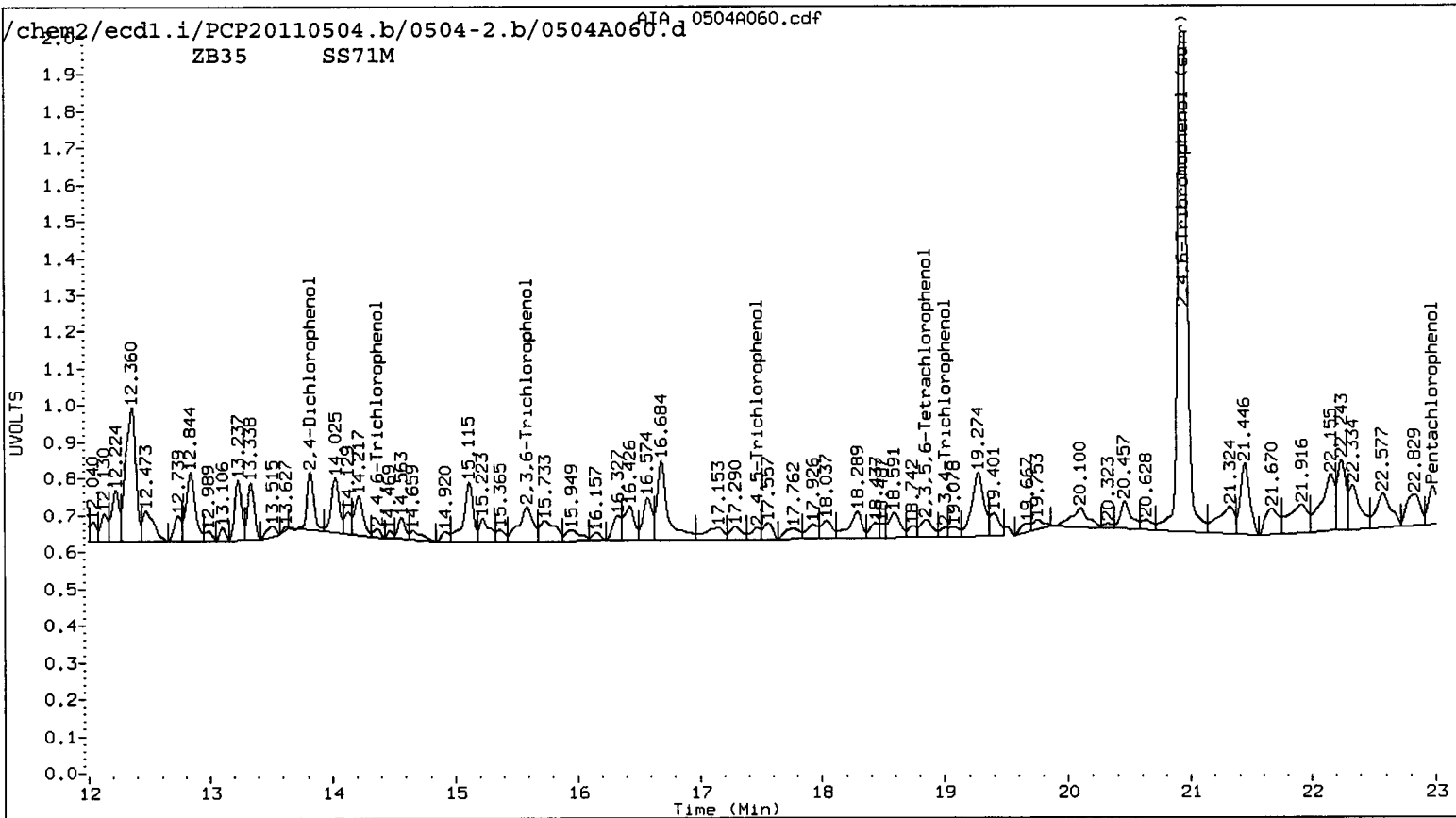
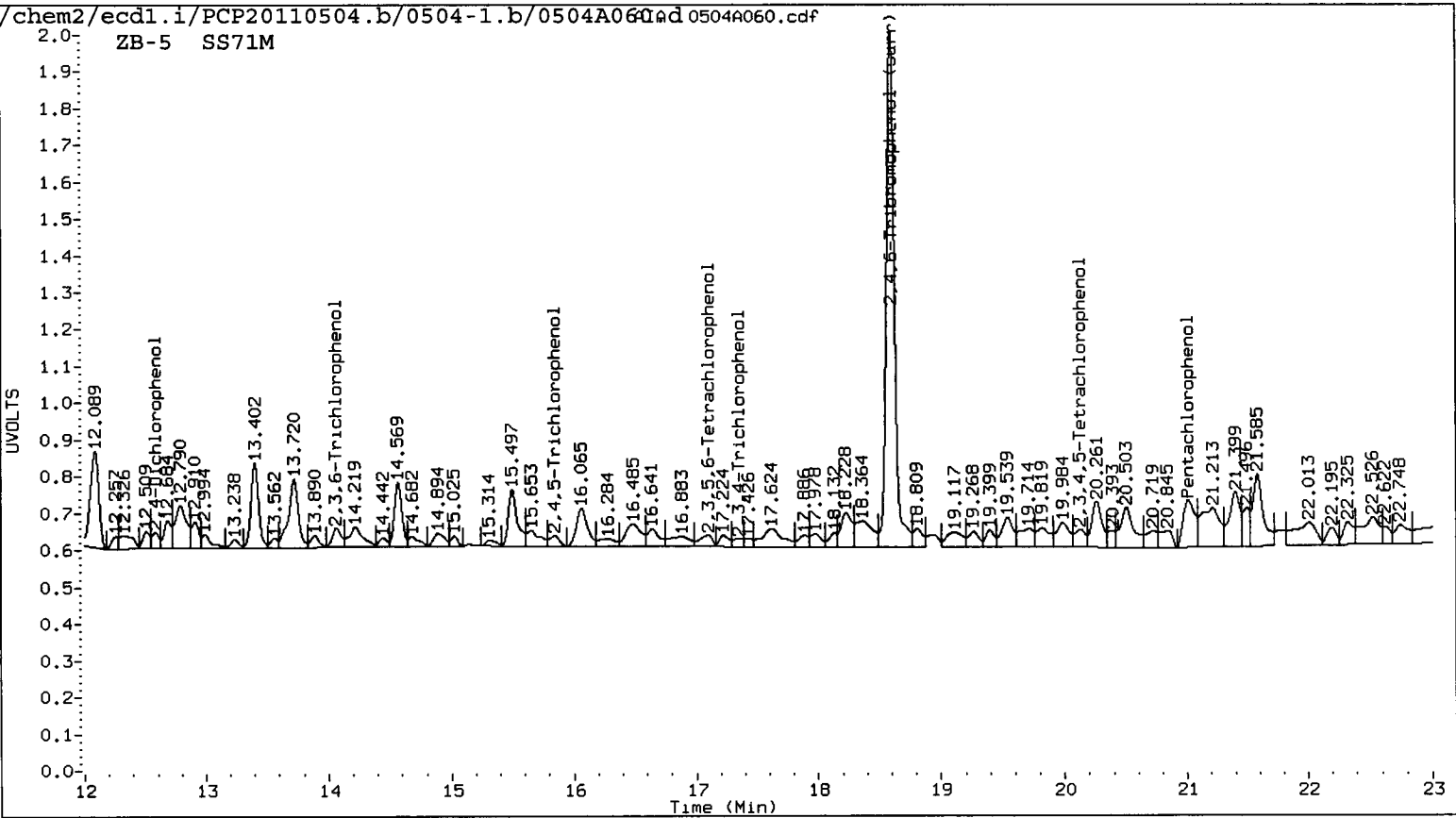
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

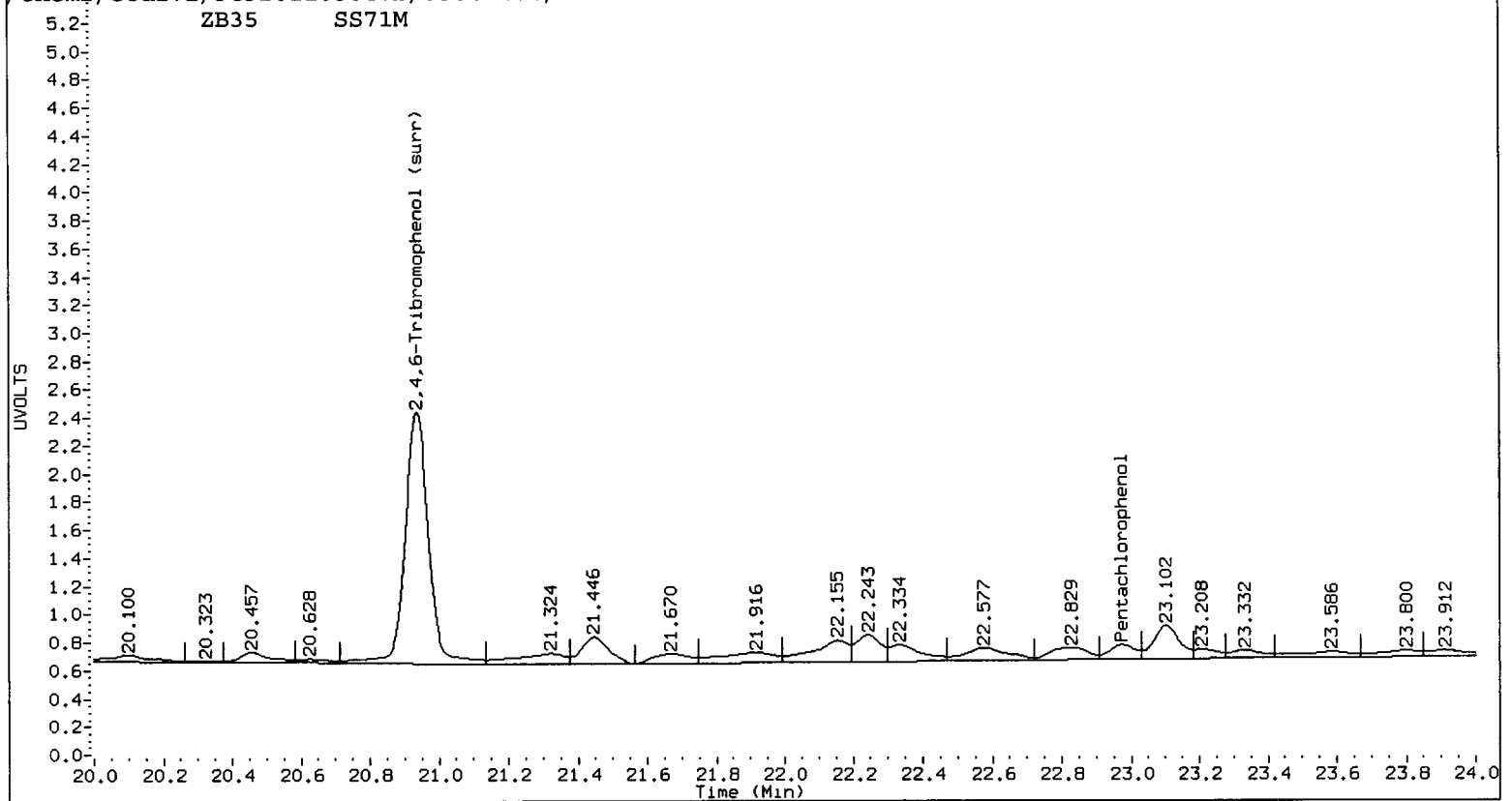
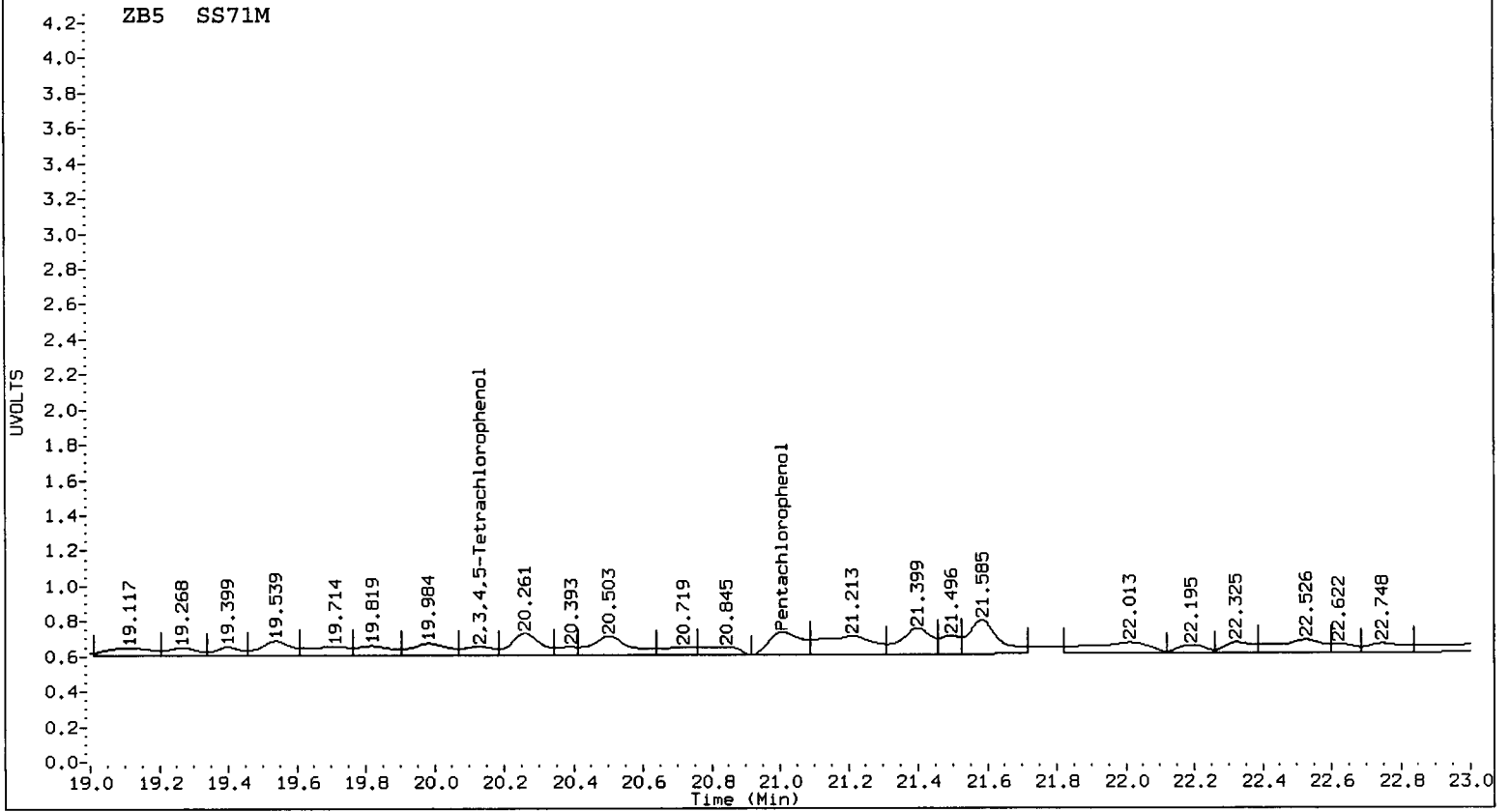
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 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 20:46
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.008	0.011	42630	22.974	0.007	26944	2.1157	0.9568	75.4*	Pentachlorophenol
----			14.367	0.056	4146	0.0000	0.2861	---	2,4,6-Trichlorophenol
14.063	-0.034	12708	15.584	0.027	38225	1.1097	2.6594	82.2*	2,3,6-Trichlorophenol
15.845	0.000	8000	17.468	-0.006	8651	1.0444	1.0686	2.3	2,4,5-Trichlorophenol
17.348	-0.003	5788	19.007	-0.016	5515	0.6928	0.5269	27.2	2,3,4-Trichlorophenol
17.101	-0.052	11362	18.849	0.035	16790	0.6721	0.7654	13.0	2,3,5,6-Tetrachlorophenol
20.129	-0.026	14079	----			1.0846	0.0000	---	2,3,4,5-Tetrachlorophenol
12.581	0.026	8704	13.823	0.003	30991	10.8672	36.4966	108.2*	2,4-Dichlorophenol
18.596	0.000	323810	20.937	0.001	421477	20.6	20.0	2.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	82.3	80.2





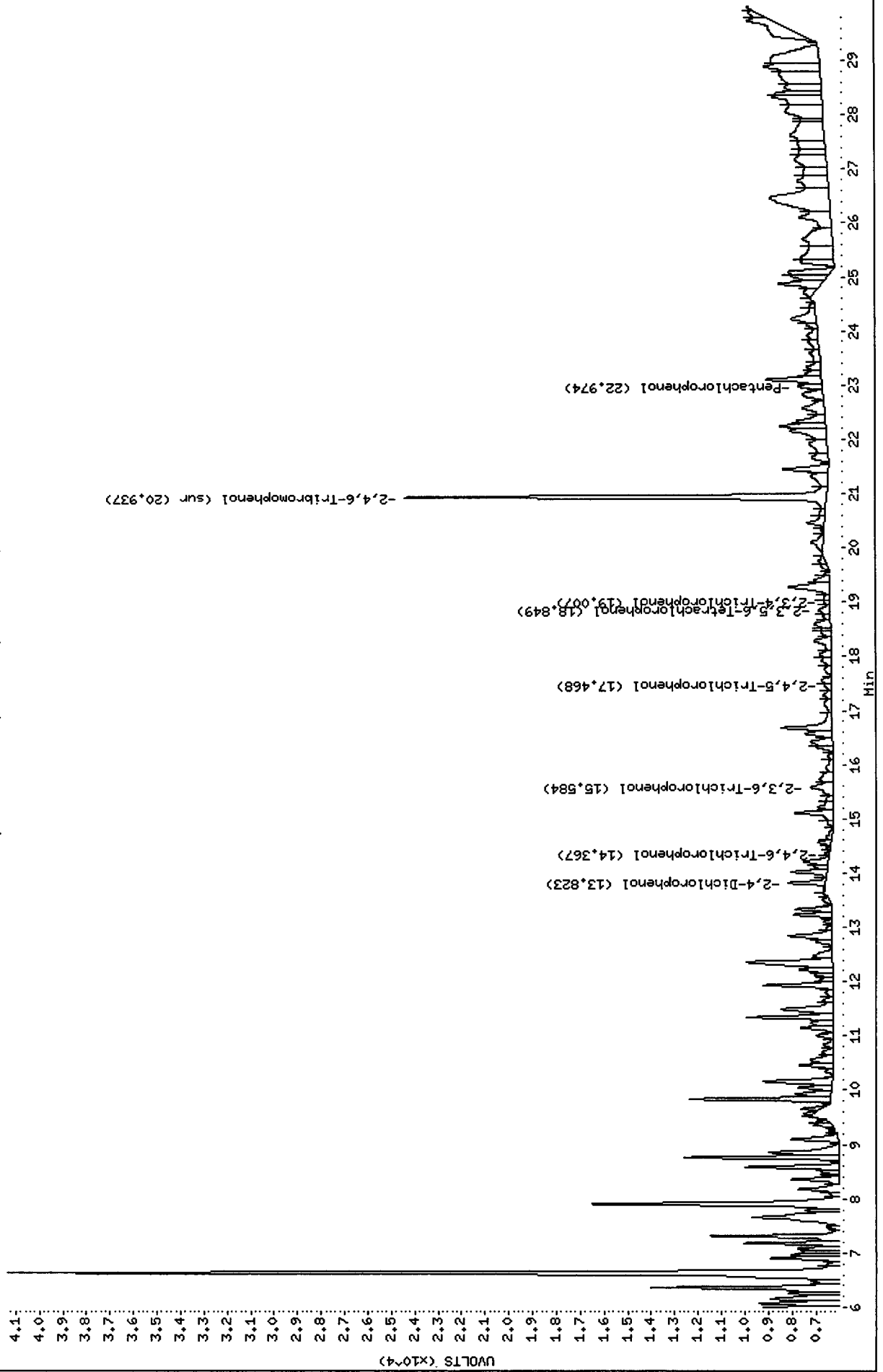
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Date : 05-MAY-2011 20:46
Client ID: LL-SB2-0-0.5-041911
Sample Info: SS71M

Instrument: ecd1.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP2

/chem2/ecd1.i/PCP20110504.b/0504-2.b/0504A060.d/0504A060.cdf



Data File: /chem2/ecd1.i/PCP20110504.b/0504-1.b/0504A060.d

Date : 05-MAY-2011 20:46

Client ID: LL-SB2-0-0.5-041911

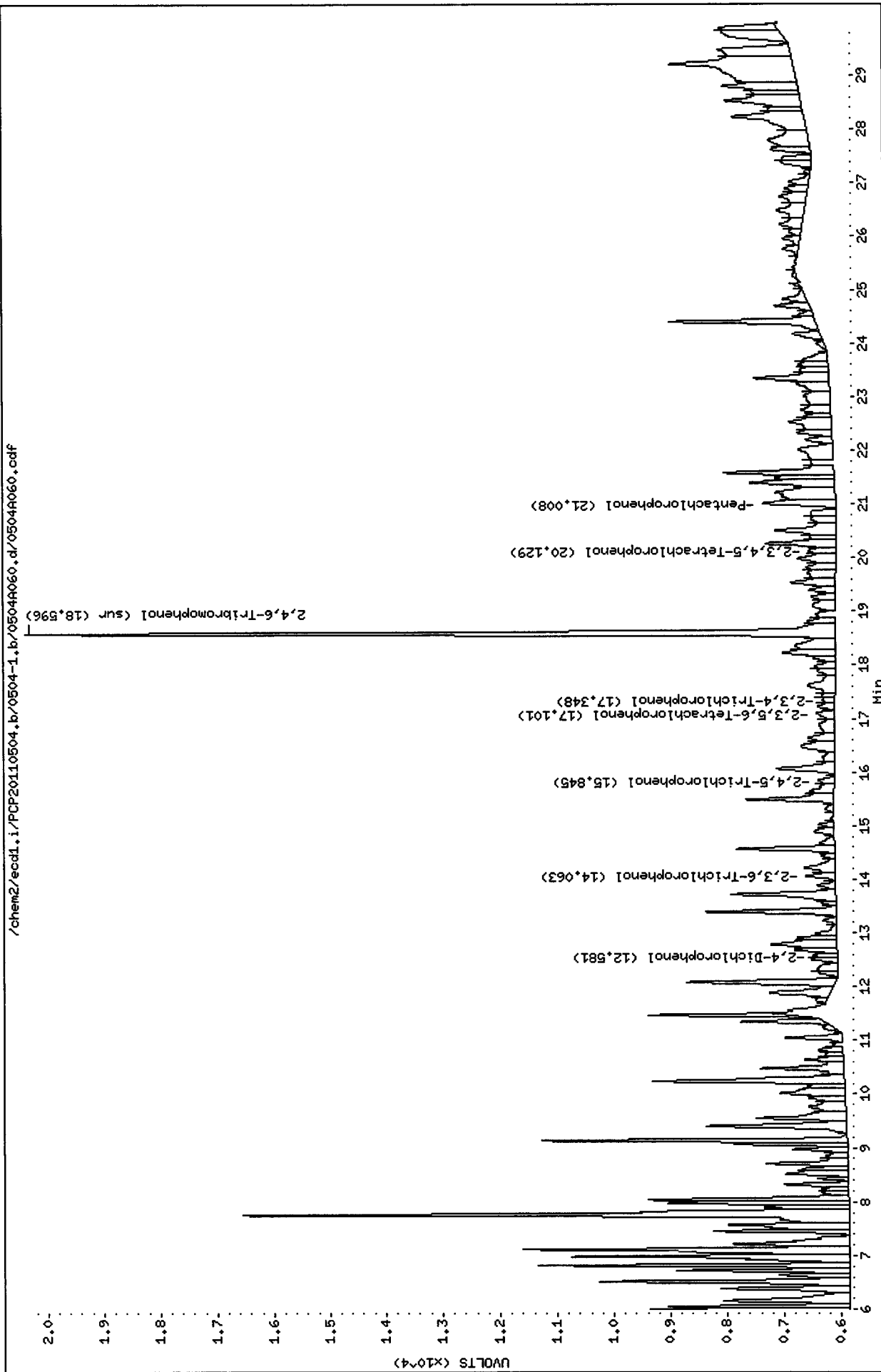
Sample Info: SS71H

Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



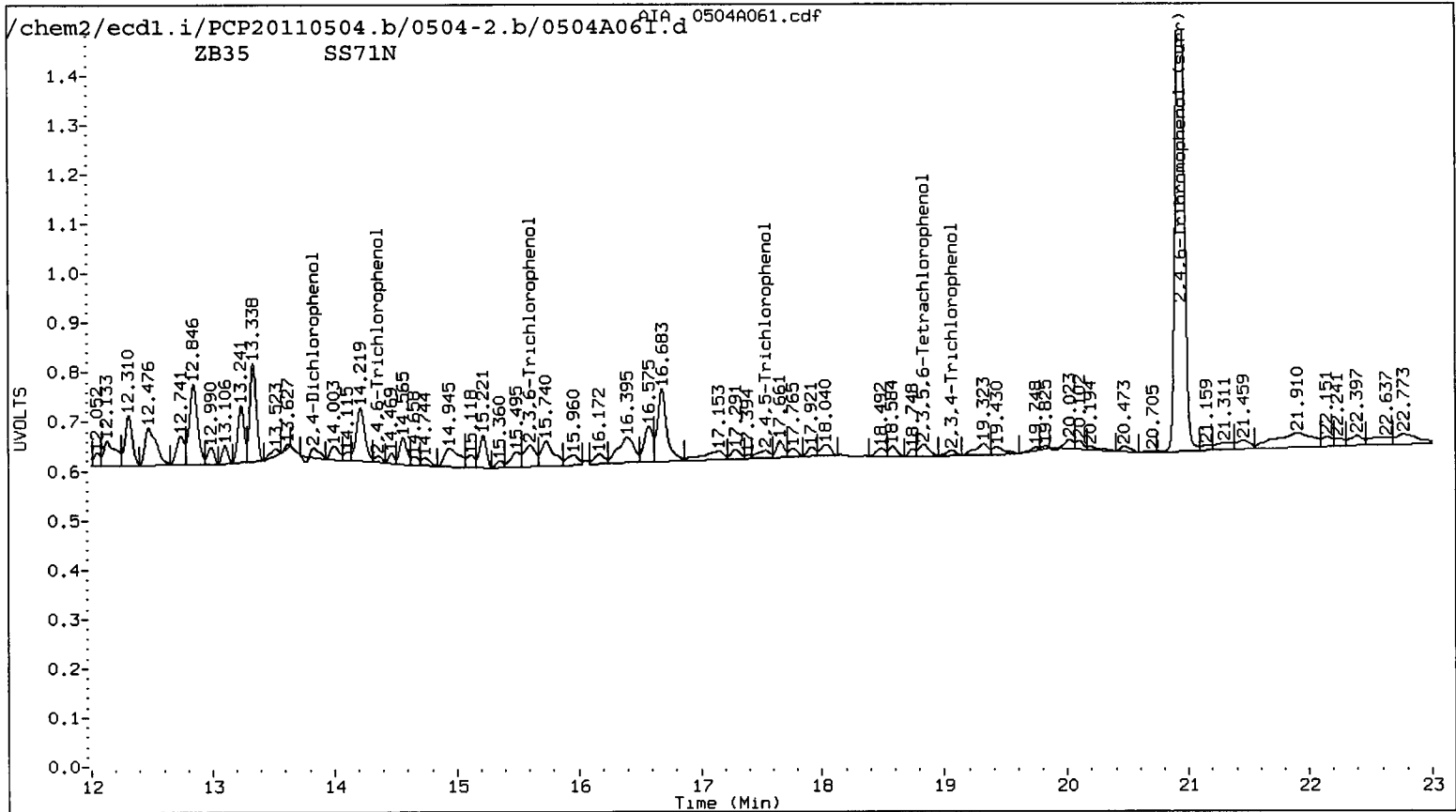
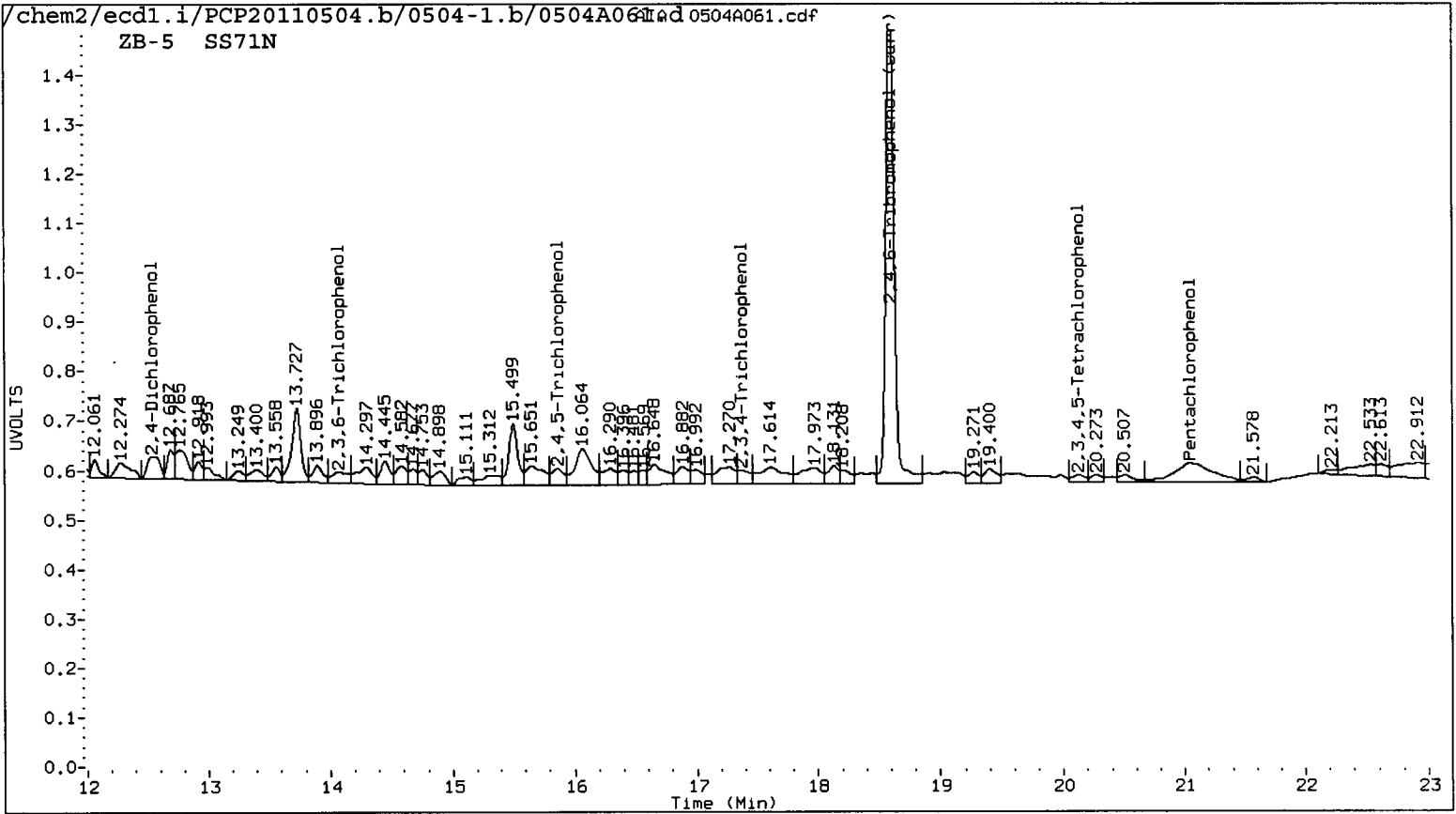
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

Data file 1: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A061.d ARI ID: SS71N
 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A061.d Client ID: LL-SB2-1.5-2-041911
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 21:23
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

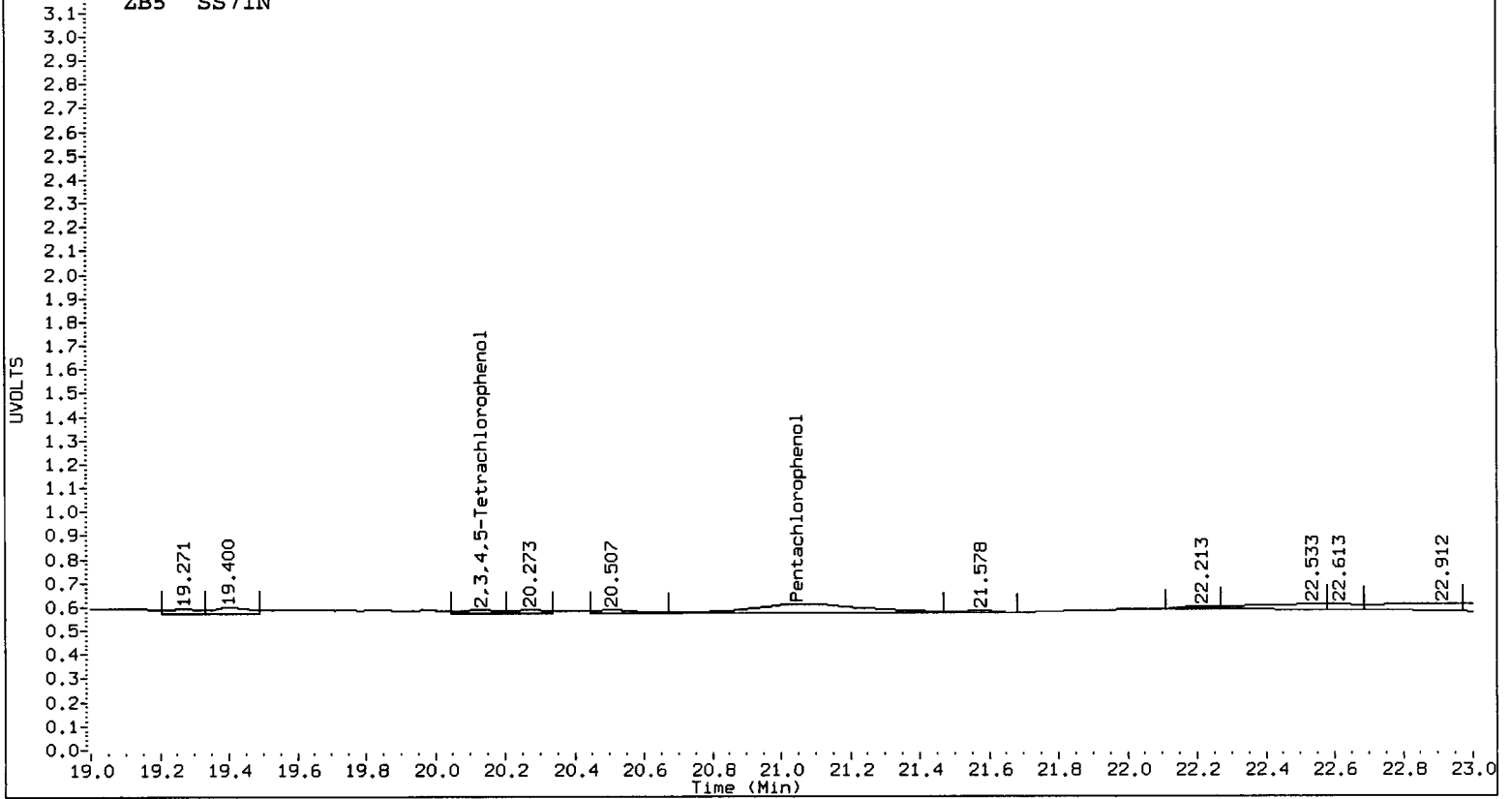
ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.045	0.048	43452	----			2.1565	0.0000	---	Pentachlorophenol
----			14.361	0.050	2607	0.0000	0.1799	---	2,4,6-Trichlorophenol
14.067	-0.030	10650	15.606	0.049	14433	0.9300	1.0042	7.7	2,3,6-Trichlorophenol
15.859	0.014	10944	17.541	0.067	5791	1.4329	0.7154	66.8*	2,4,5-Trichlorophenol
17.368	0.017	9653	19.068	0.045	3162	1.1554	0.3017	117.2*	2,3,4-Trichlorophenol
----			18.838	0.024	7334	0.0000	0.3343	---	2,3,5,6-Tetrachlorophenol
20.131	-0.024	5770	----			0.4445	0.0000	---	2,3,4,5-Tetrachlorophenol
12.535	-0.020	15811	13.836	0.016	3486	19.9395	3.9418	134.0*	2,4-Dichlorophenol
18.597	0.001	240163	20.937	0.001	287771	15.3	13.7	10.8	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

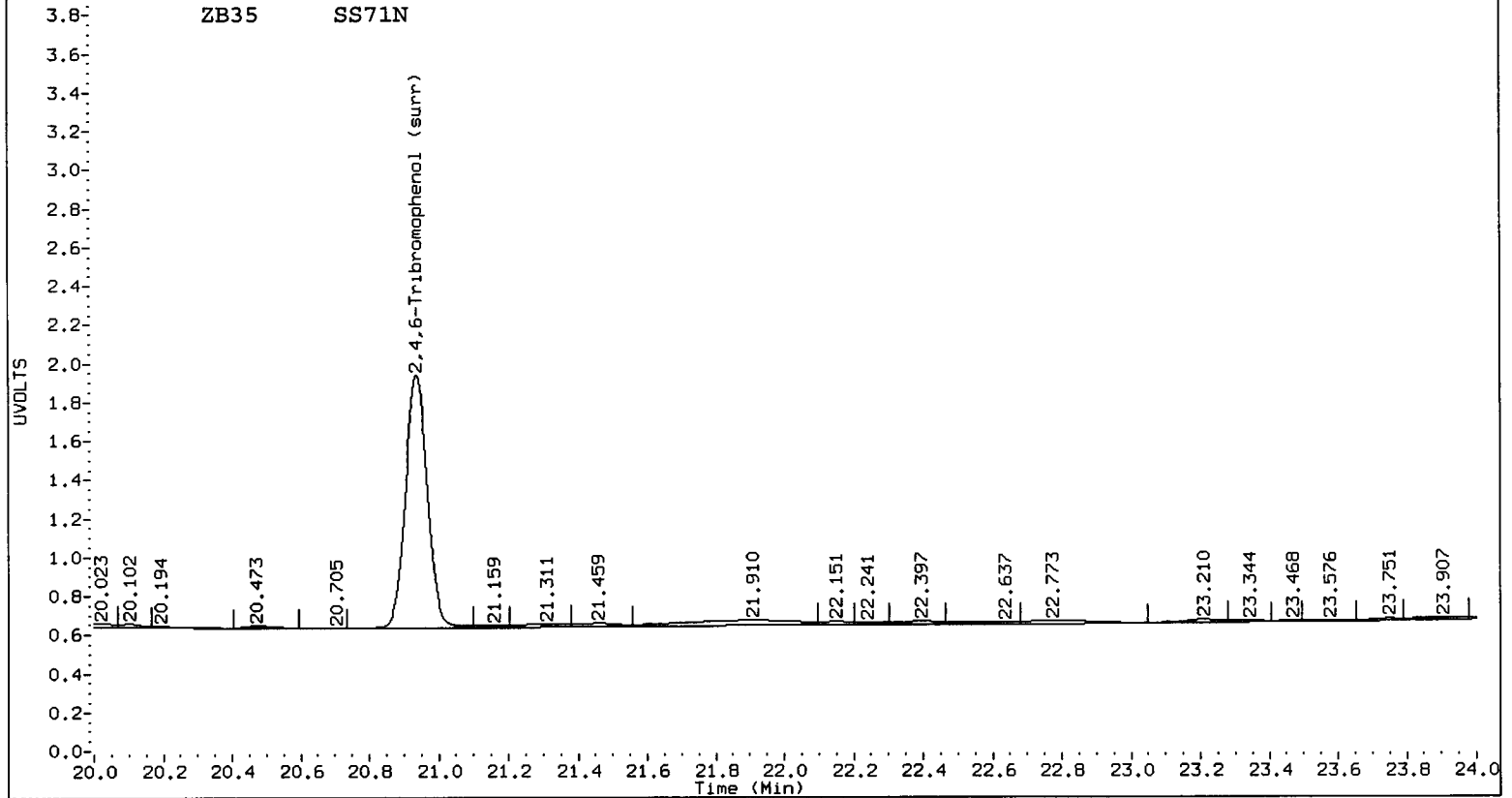
COMPOUND	Col1	Col2
2,4,6-TBP (surr)	61.0	54.8



ZB5 SS71N



ZB35 SS71N



Data File: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A061.d

Date : 05-MAY-2011 21:23

Client ID: LL-SB2-1.5-2-041911

Sample Info: SS71N

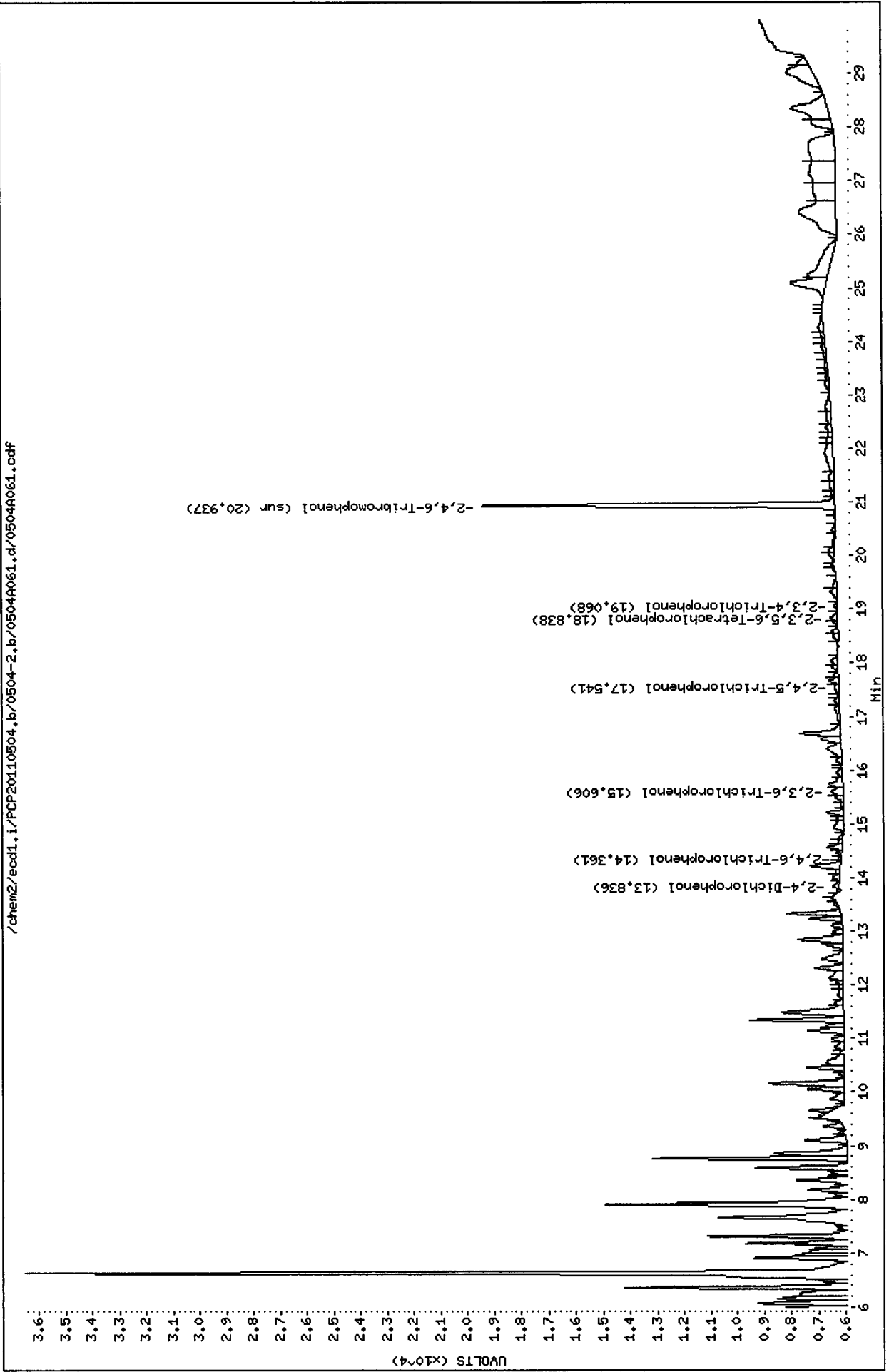
Instrument: ecdl.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

/chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A061.d/0504A061.cdf



Data File: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A061.d

Date : 05-MAY-2011 21:23

Client ID: LL-SB2-1.5-2-041911

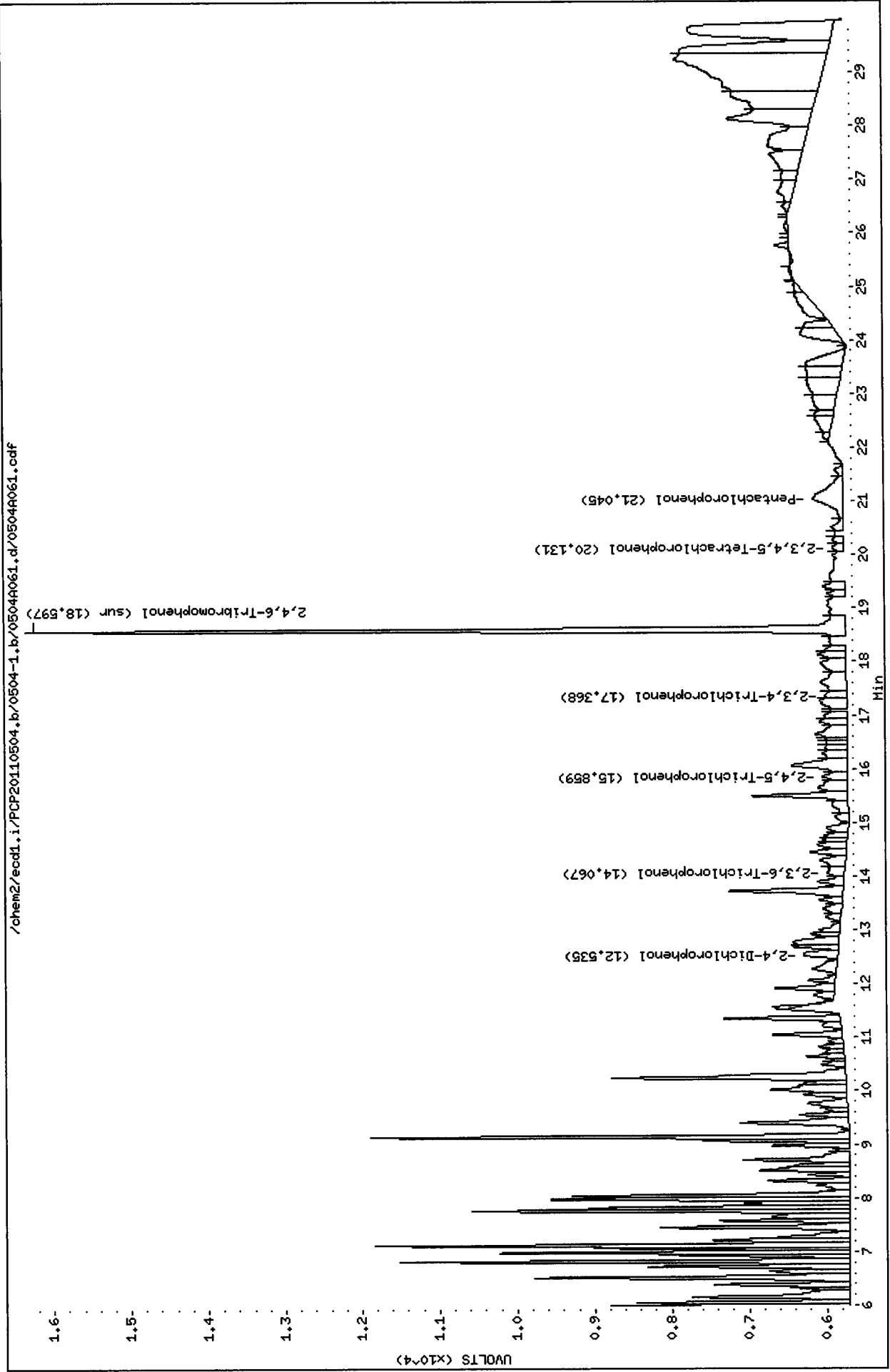
Sample Info: SS71N

Instrument: ecdl.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



SS71 : 01194

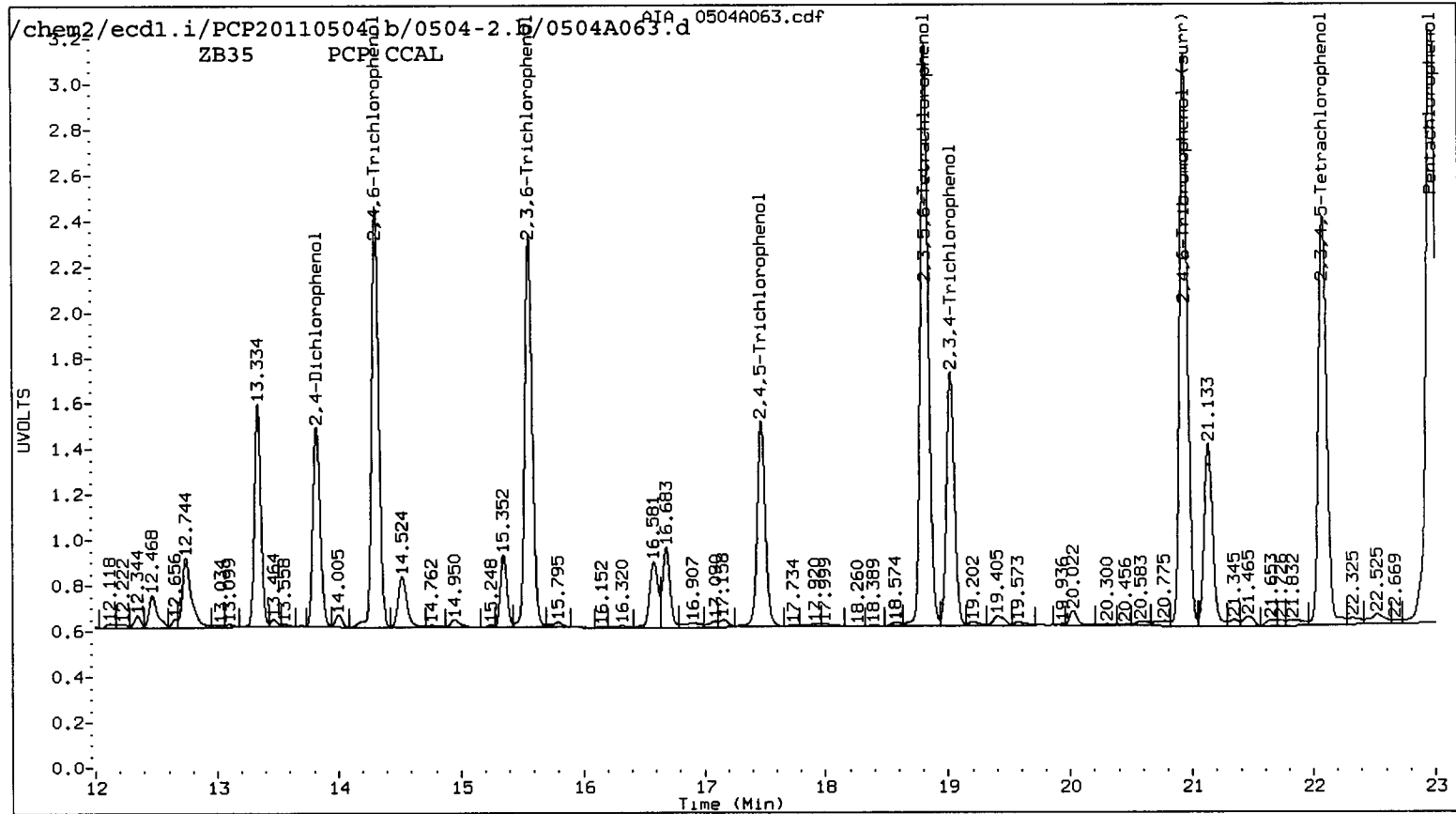
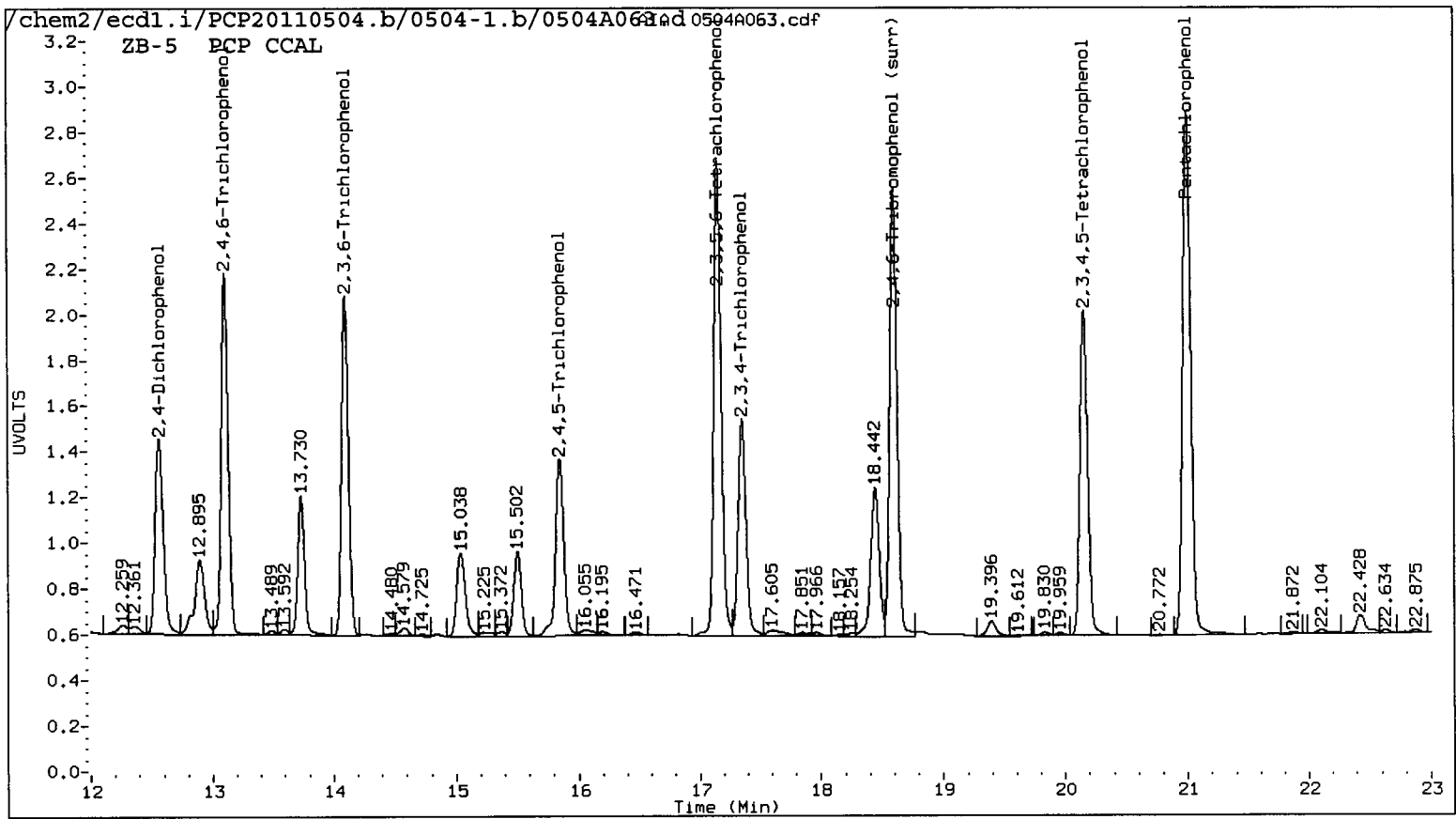
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

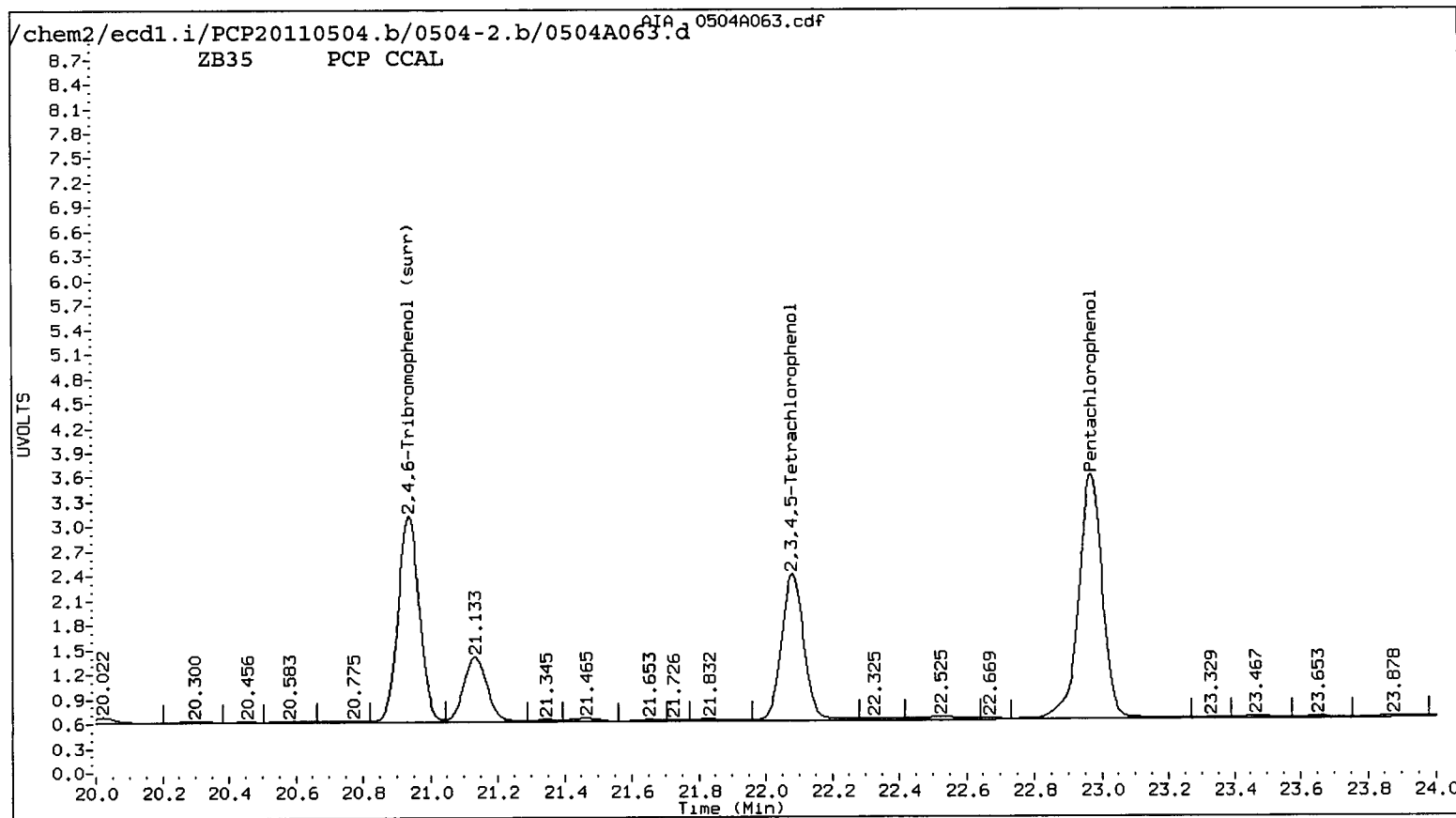
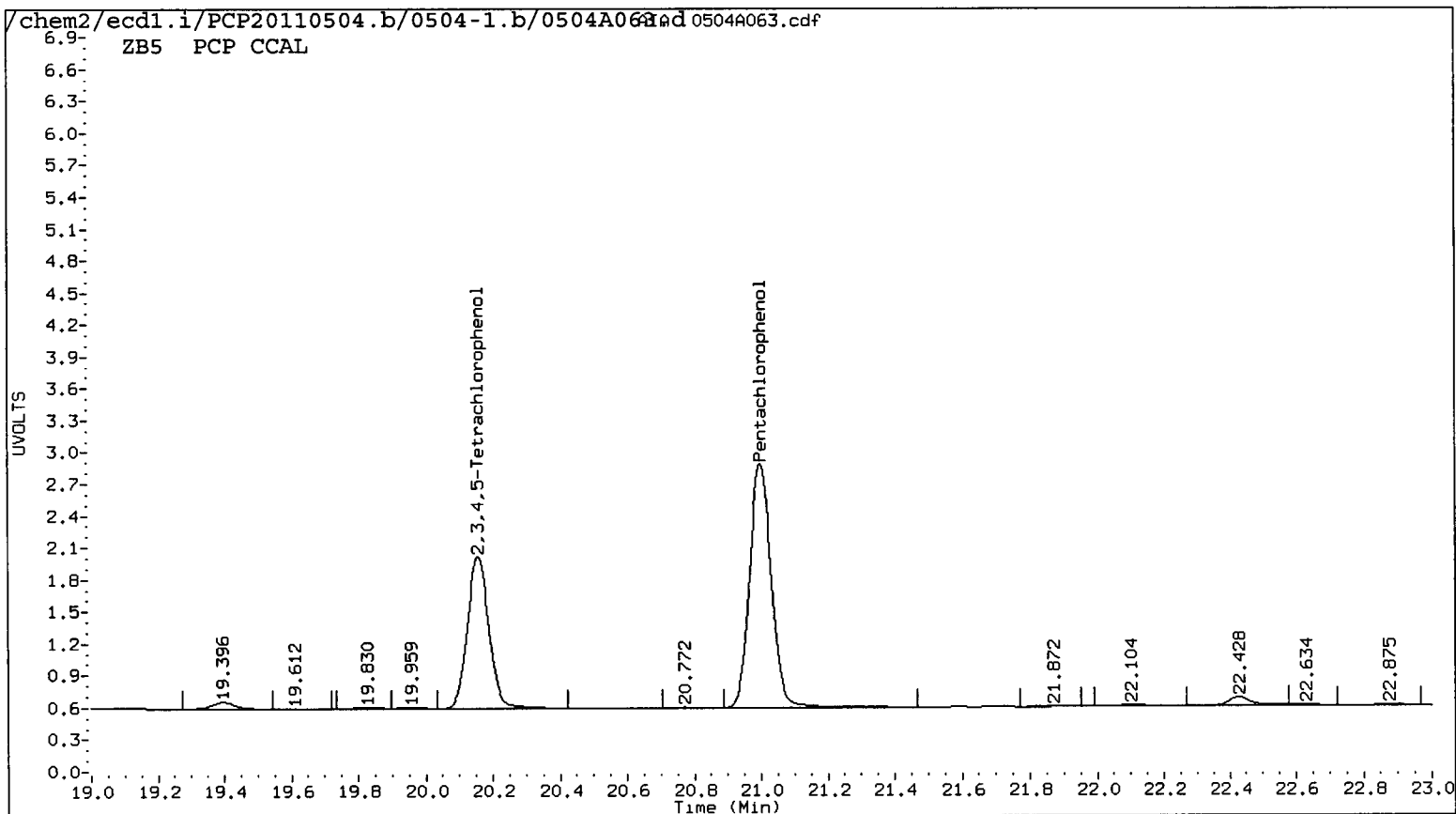
Data file 1: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A063.d ARI ID: PCP CCAL
 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A063.d Client ID:
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 22:35
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
20.999	0.001	523774	22.968	0.001	739988	25.9949	26.2772	1.1	Pentachlorophenol
13.102	0.001	314894	14.312	0.001	375314	25.8687	25.8949	0.1	2,4,6-Trichlorophenol
14.097	0.000	293426	15.558	0.001	365991	25.6209	25.4631	0.6	2,3,6-Trichlorophenol
15.846	0.001	179330	17.474	0.000	213742	27.3524	26.4020	3.5	2,4,5-Trichlorophenol
17.352	0.001	213218	19.023	0.000	251240	25.5189	27.7895	8.5	2,3,4-Trichlorophenol
17.153	0.001	448936	18.815	0.001	572032	26.5538	26.0750	1.8	2,3,5,6-Tetrachlorophenol
20.155	0.001	318380	22.081	0.001	421931	24.5252	27.9183	12.9	2,3,4,5-Tetrachlorophenol
12.559	0.004	194404	13.821	0.001	186314	306.6621	269.0475	13.1	2,4-Dichlorophenol
18.596	0.001	417217	20.937	0.001	553904	26.5	26.3	0.6	2,4,6-Tribromophenol (surr)

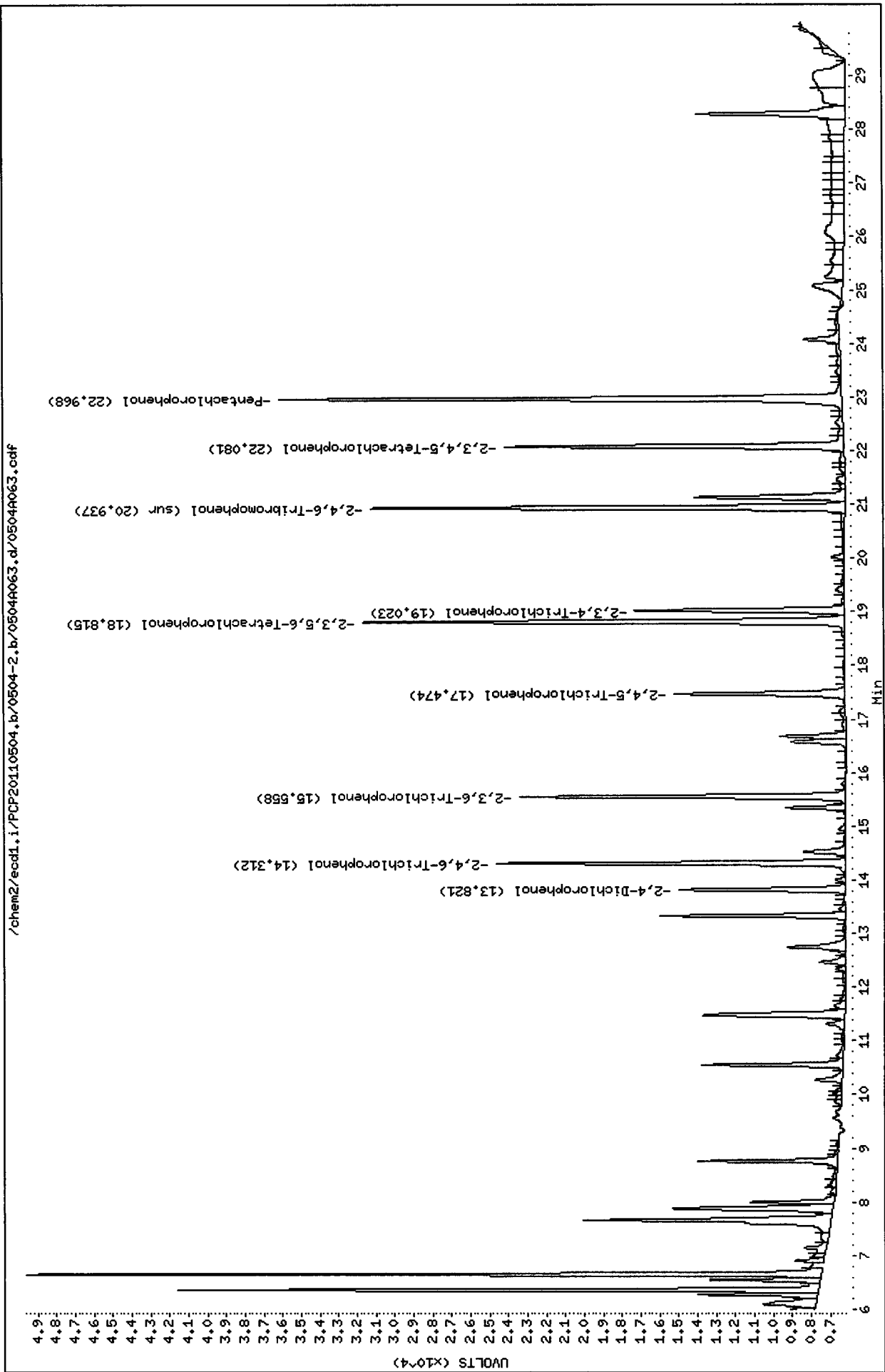
PERCENT RECOVERY

COMPOUND	Col1	Col2
Pentachlorophenol	104.0	105.1
2,4,6-Trichlorophenol	103.5	103.6
2,3,6-Trichlorophenol	102.5	101.9
2,4,5-Trichlorophenol	109.4	105.6
2,3,4-Trichlorophenol	102.1	111.2
2,3,5,6-Tetrachlorophenol	106.2	104.3
2,3,4,5-Tetrachlorophenol	98.1	111.7
2,4-Dichlorophenol	122.7	107.6
2,4,6-TBP (surr)	106.0	105.4





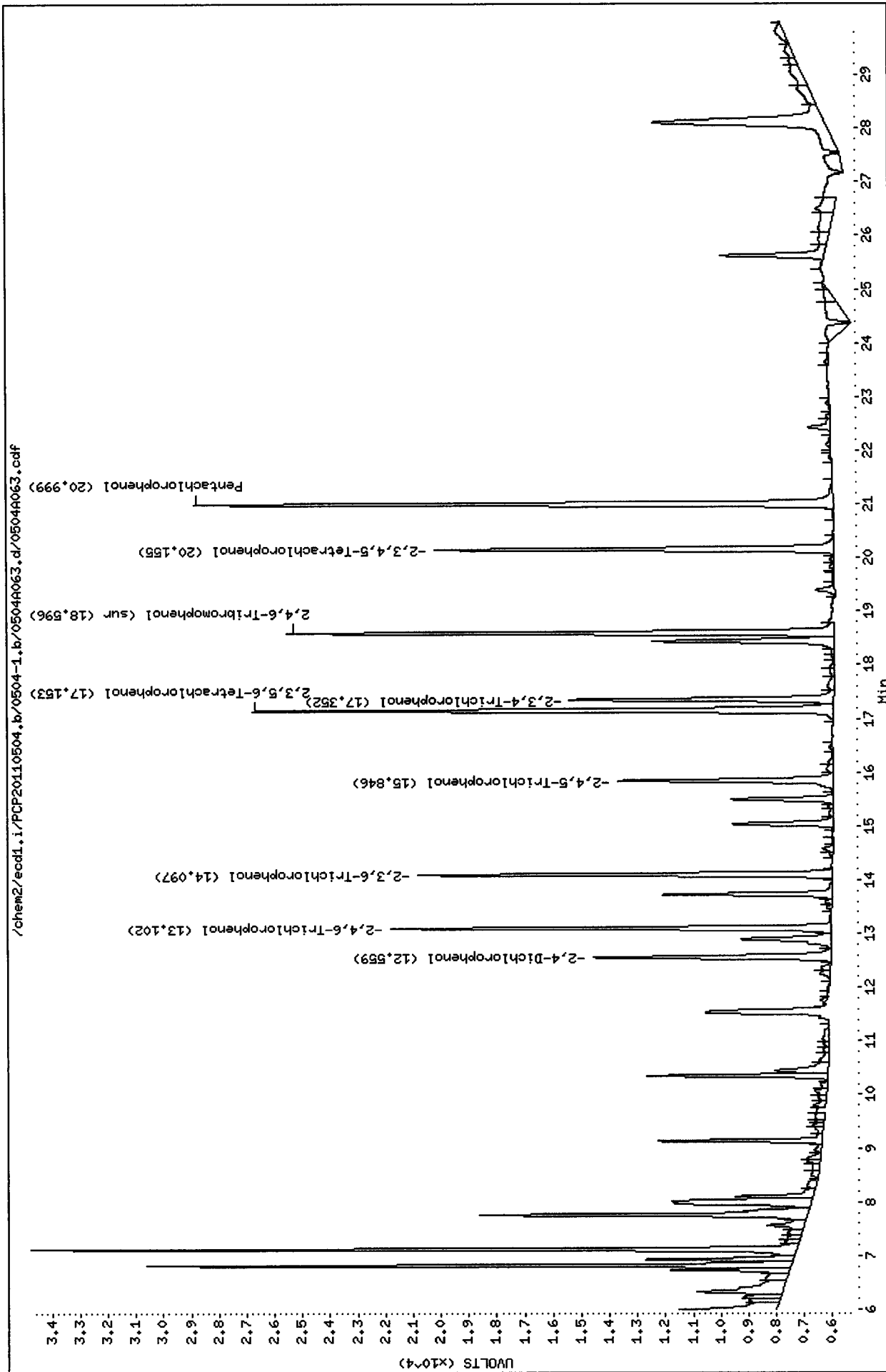
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Date : 05-MAY-2011 22:35
Client ID:
Instrument: ecdl.i
Sample Info: PCP CCAL
Operator: ar
Purge Volume: 500.0
Column diameter: 0.53
Column phase: STX CLP2

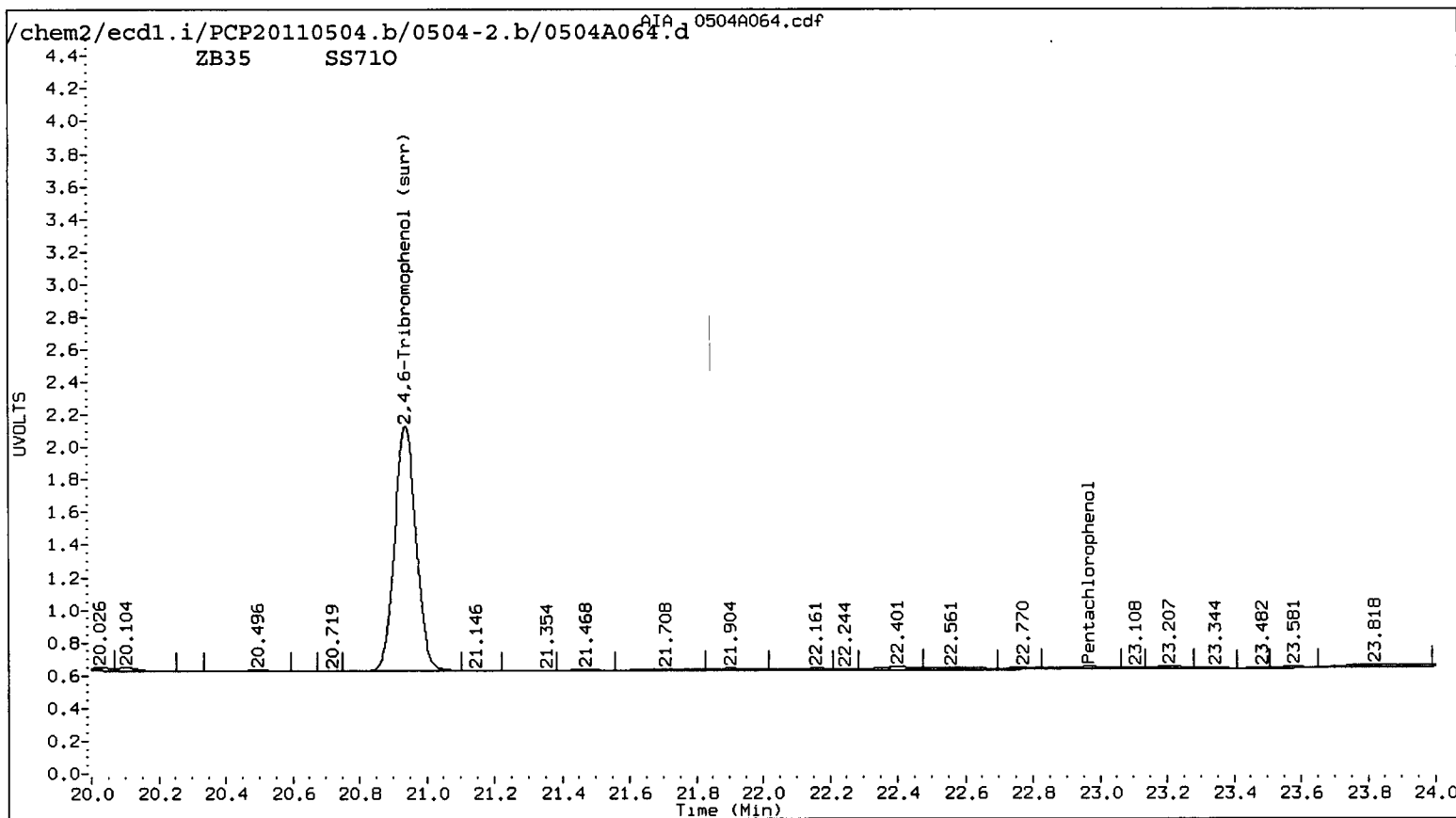
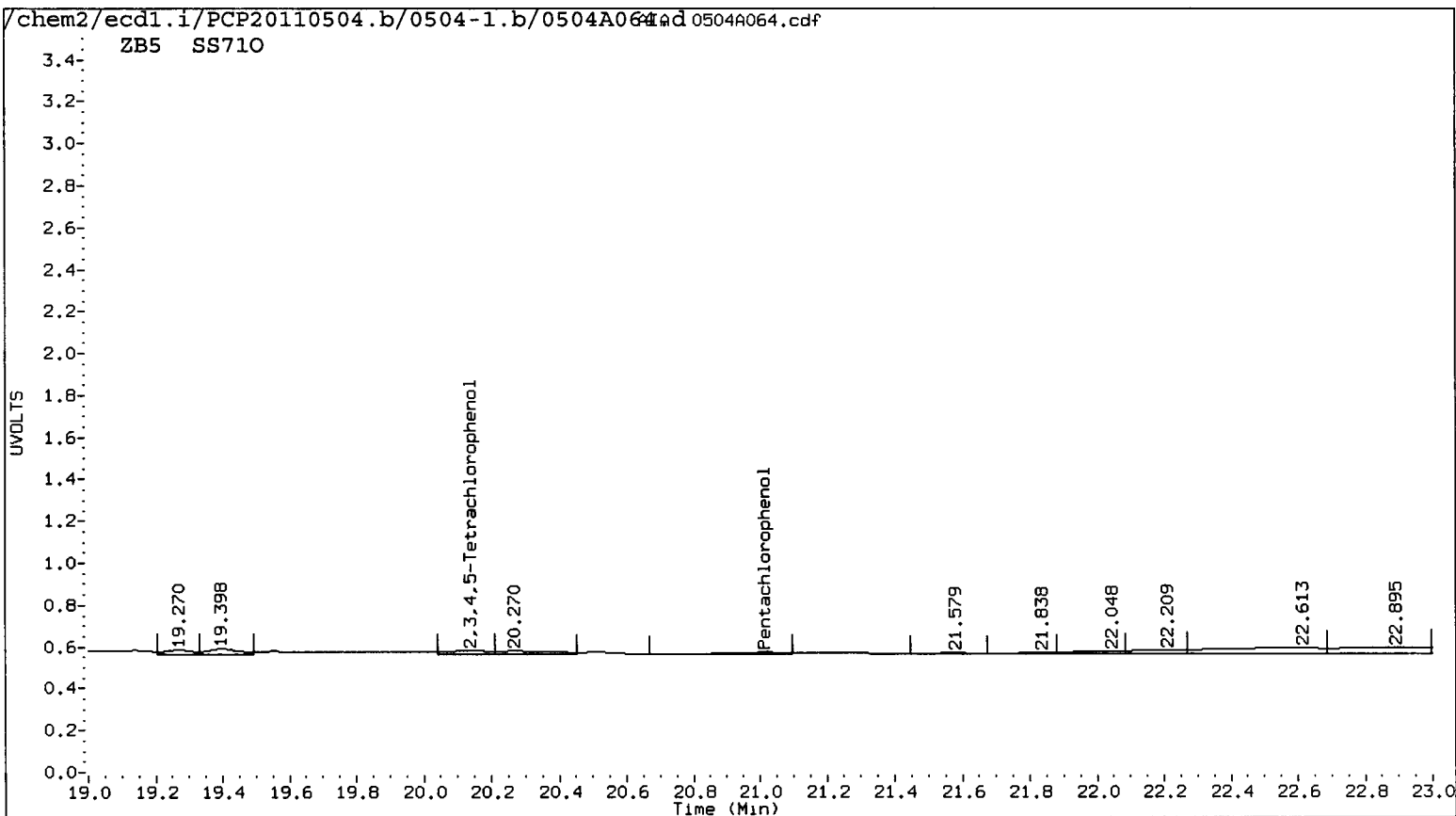


Data File: /chem2/ecd1.i/PCP20110504.b/0504-1.b/0504A063.d
Date : 05-MAY-2011 22:35
Client ID:
Sample Info: PCP CCAL
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecd1.i

Operator: ar
Column diameter: 0.53





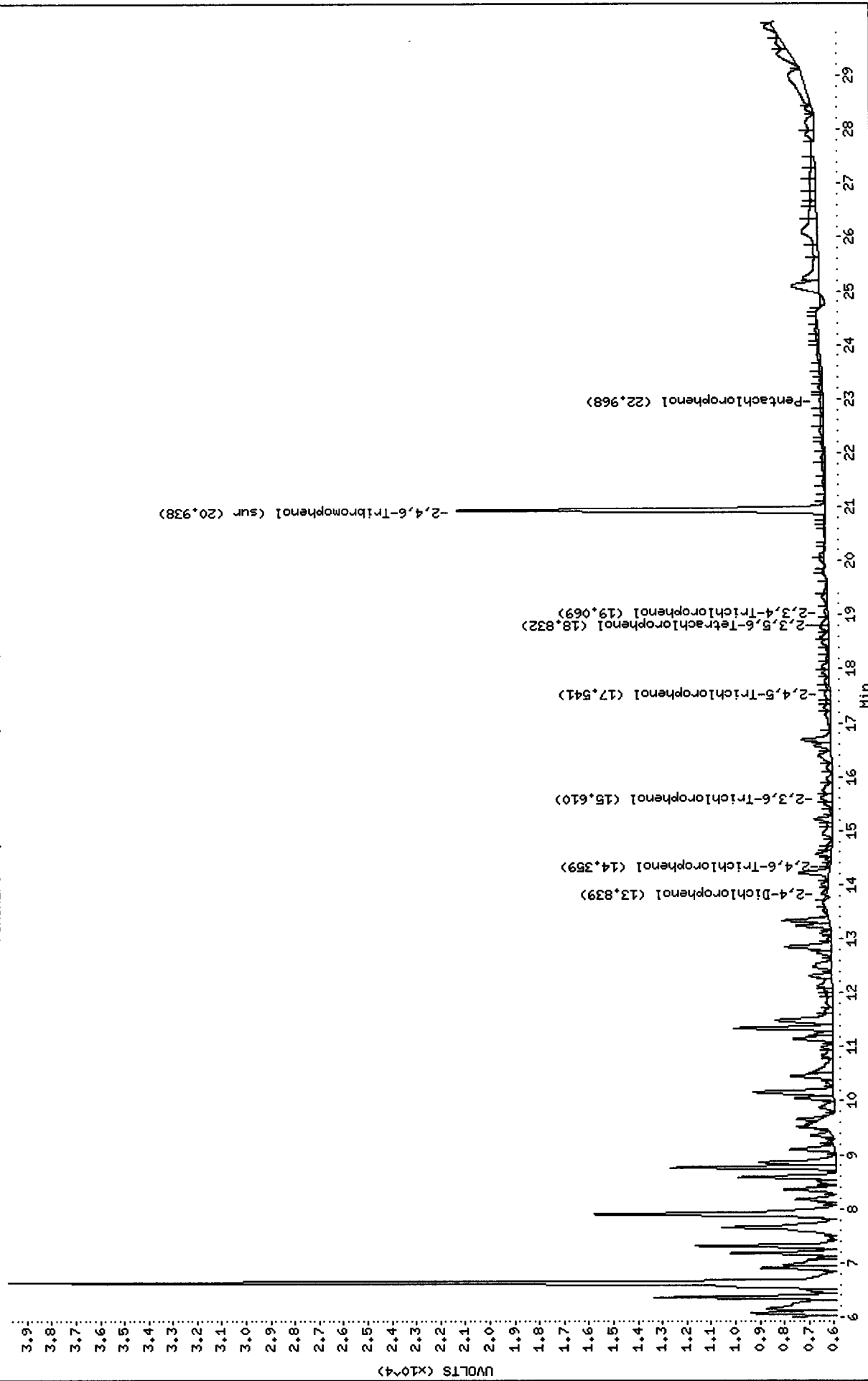
Data File: /chem2/ecdl1.i/PCP20110504.b/0504-2.b/0504A064.d
Date : 05-MAY-2011 23:12
Client ID: LL-S82-2-3.5-041911
Sample Info: SS710

Instrument: ecd1.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP2

/chem2/ecdl1.i/PCP20110504.b/0504-2.b/0504A064.d/0504A064.cdf

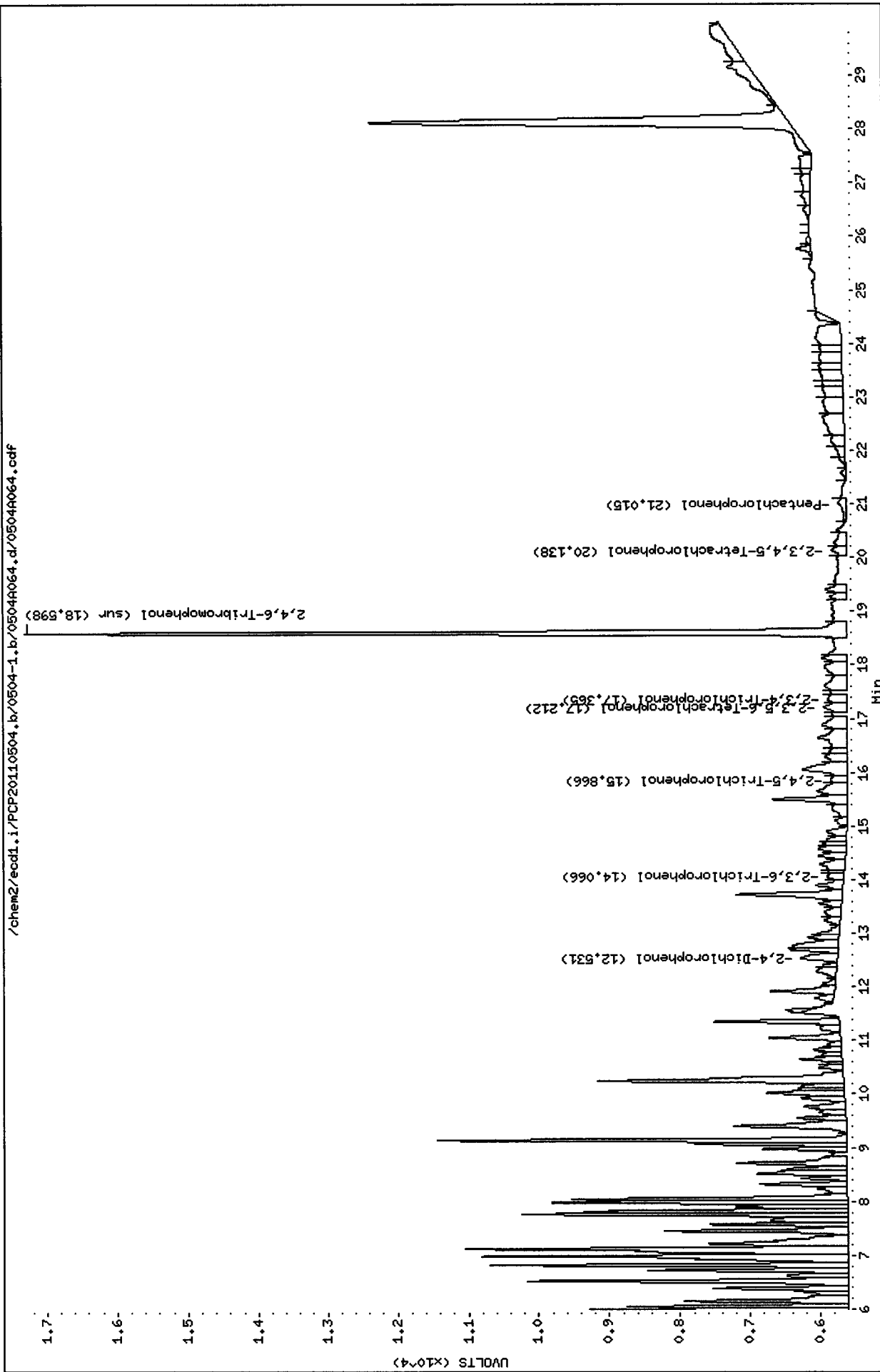


Data File: /chem2/ecdl1.i/PCP20110504.b/0504-1.b/0504A064.d
Date : 05-MAY-2011 23:12
Client ID: LL-SB2-2-3.9-041941
Sample Info: SS710

Instrument: ecdl1.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP1



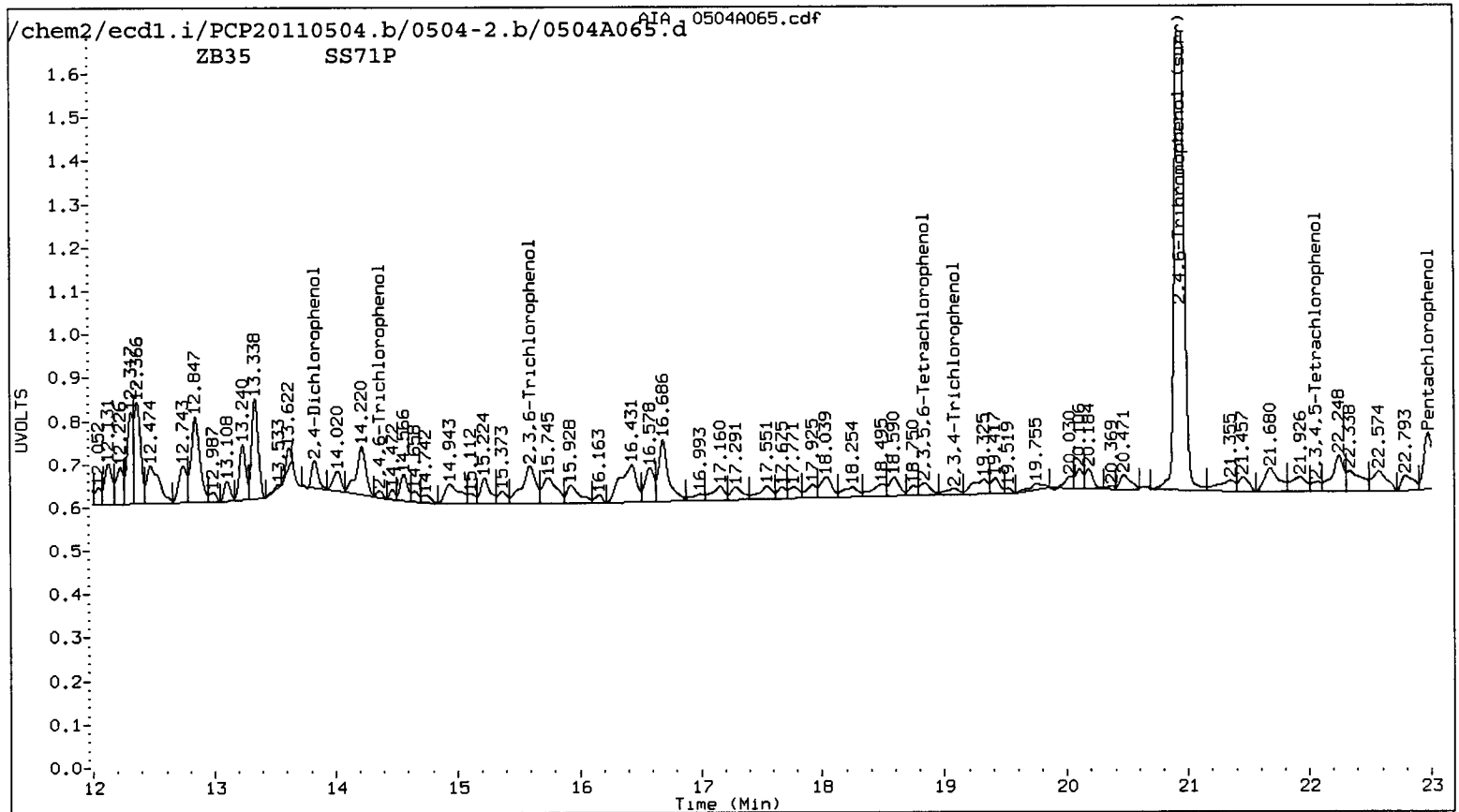
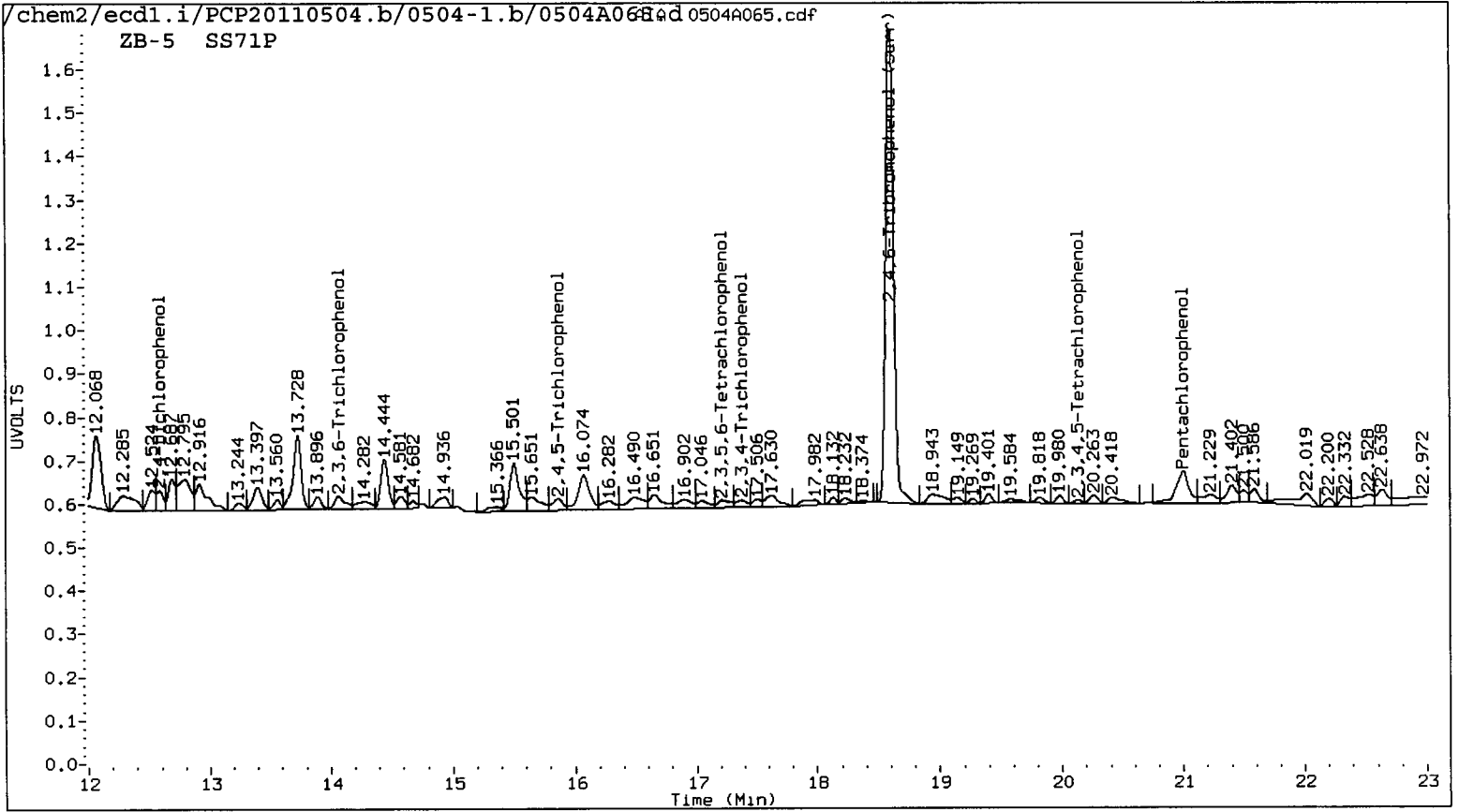
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

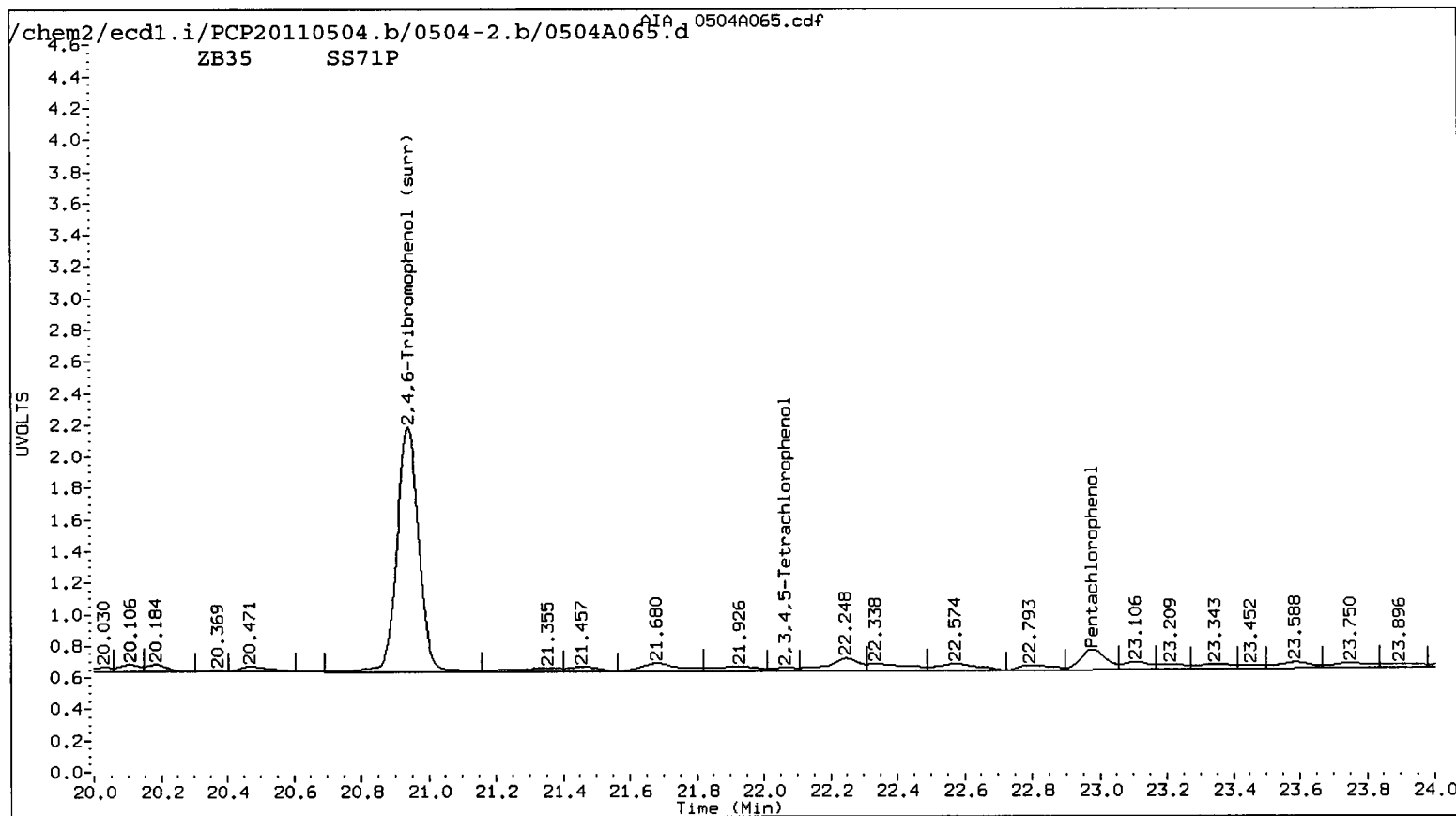
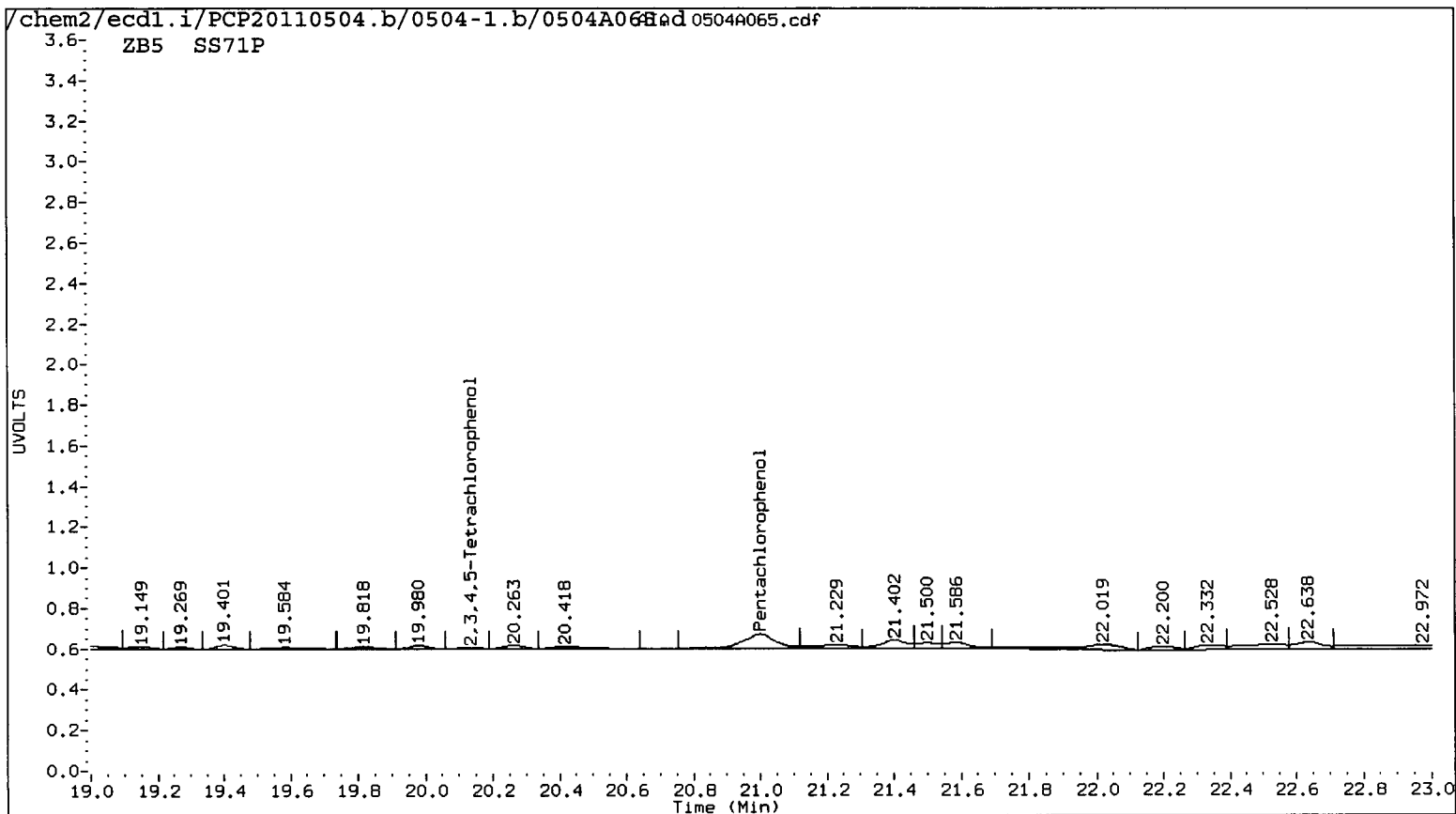
Data file 1: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A065.d ARI ID: SS71P
 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A065.d Client ID: LL-SB1-0-0.5-041911
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 05-MAY-2011 23:48
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.001	0.003	26989	22.977	0.010	34450	1.3395	1.2234	9.1	Pentachlorophenol
----			14.367	0.056	2859	0.0000	0.1973	---	2,4,6-Trichlorophenol
14.066	-0.031	8797	15.594	0.037	33751	0.7681	2.3482	101.4*	2,3,6-Trichlorophenol
15.862	0.017	8004	----			1.0450	0.0000	---	2,4,5-Trichlorophenol
17.380	0.029	4645	19.083	0.060	5436	0.5560	0.5193	6.8	2,3,4-Trichlorophenol
17.214	0.062	6274	18.840	0.026	8907	0.3711	0.4060	9.0	2,3,5,6-Tetrachlorophenol
20.134	-0.021	2145	22.063	-0.017	5885	0.1652	0.3441	70.2*	2,3,4,5-Tetrachlorophenol
12.584	0.029	8471	13.830	0.010	11428	10.5729	13.0749	21.2	2,4-Dichlorophenol
18.599	0.003	255040	20.939	0.003	351474	16.2	16.7	3.2	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	64.8	66.9





Data File: /chem2/ecd1.i/PCP20110504.b/0504-2.b/0504A065.d

Date : 05-MAY-2011 23:48

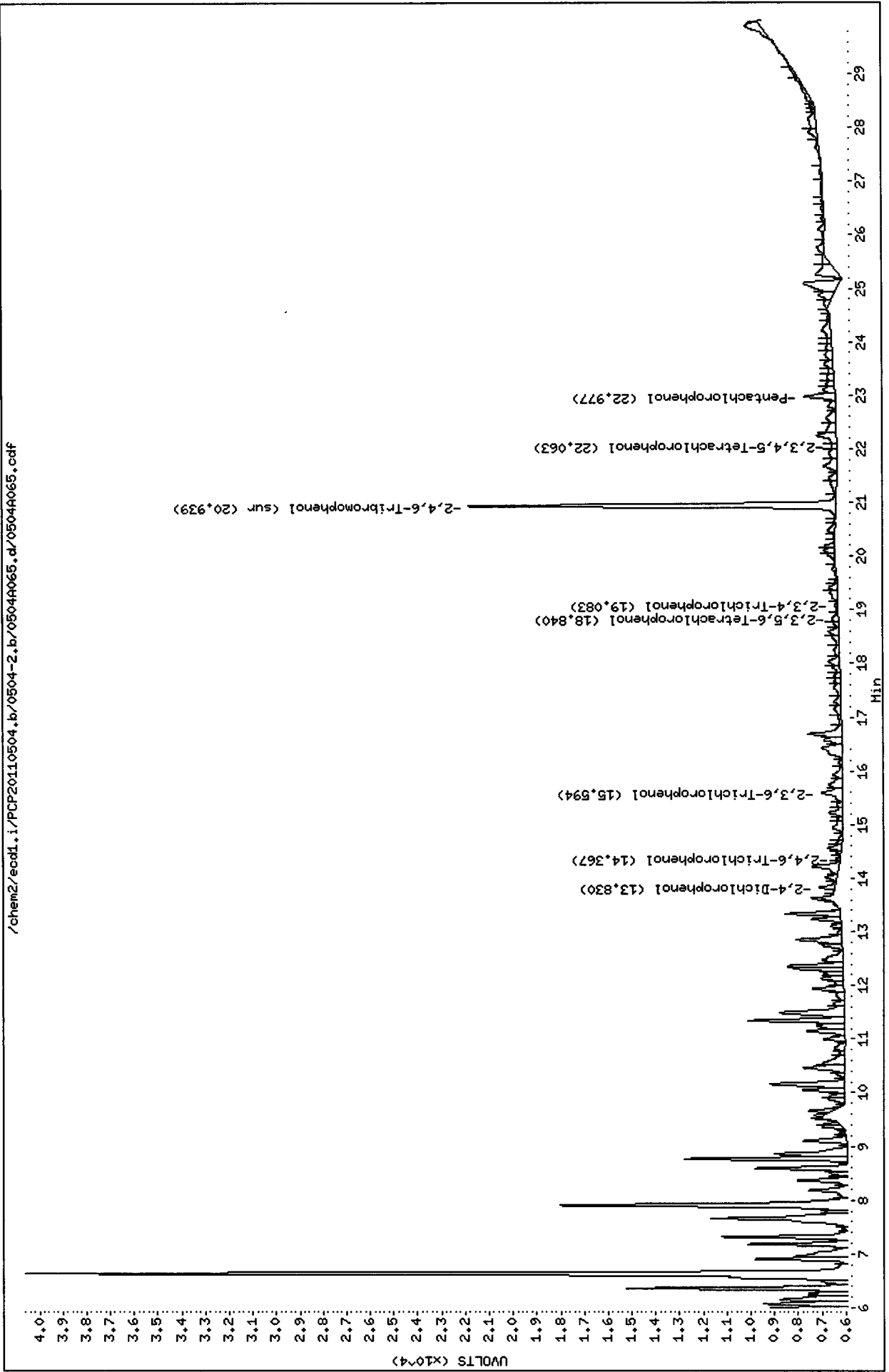
Client ID: LL-SB1-0-0.5-041911

Sample Info: SS71P

Instrument: ecd1.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP2

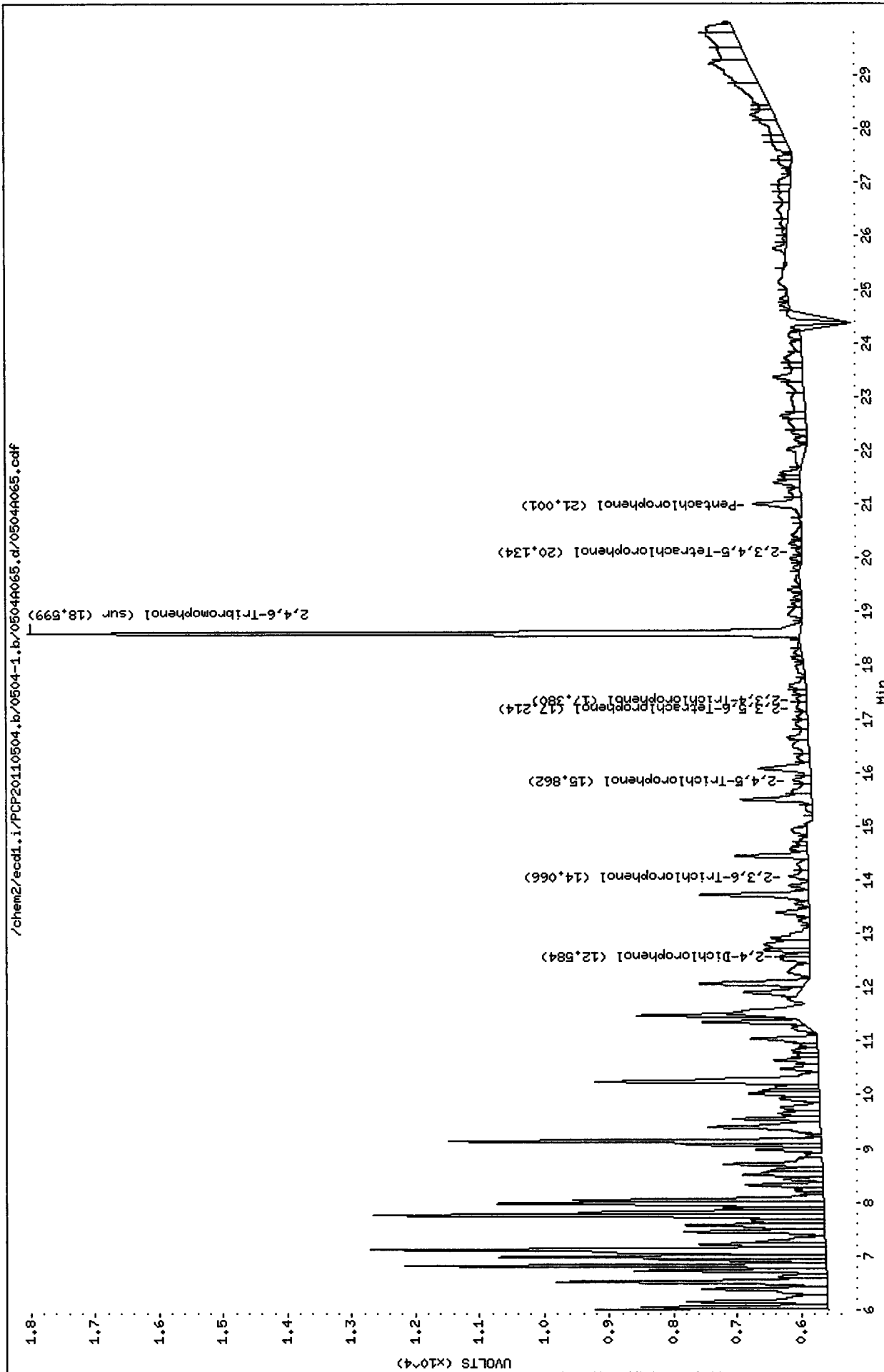


Data File: /chem2/ecd1.i/PCP20110504.b/0504-1.b/0504A065.d
Date : 05-MAY-2011 23:48
Client ID: LL-SB1-0-0.5-041911
Sample Info: SS71P

Instrument: ecd1.i

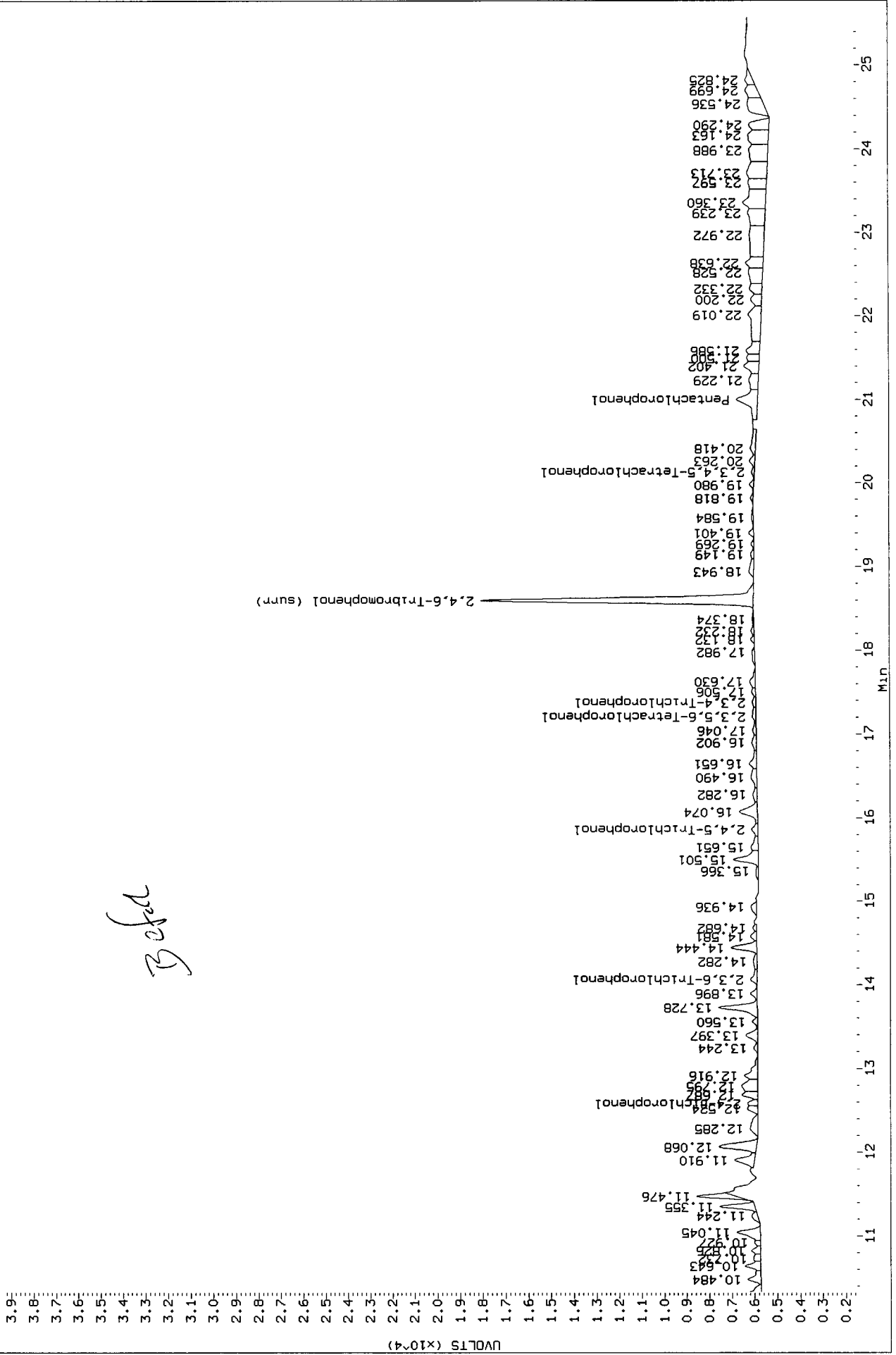
Operator: ar
Column diameter: 0.53

Column phase: STX CLP1

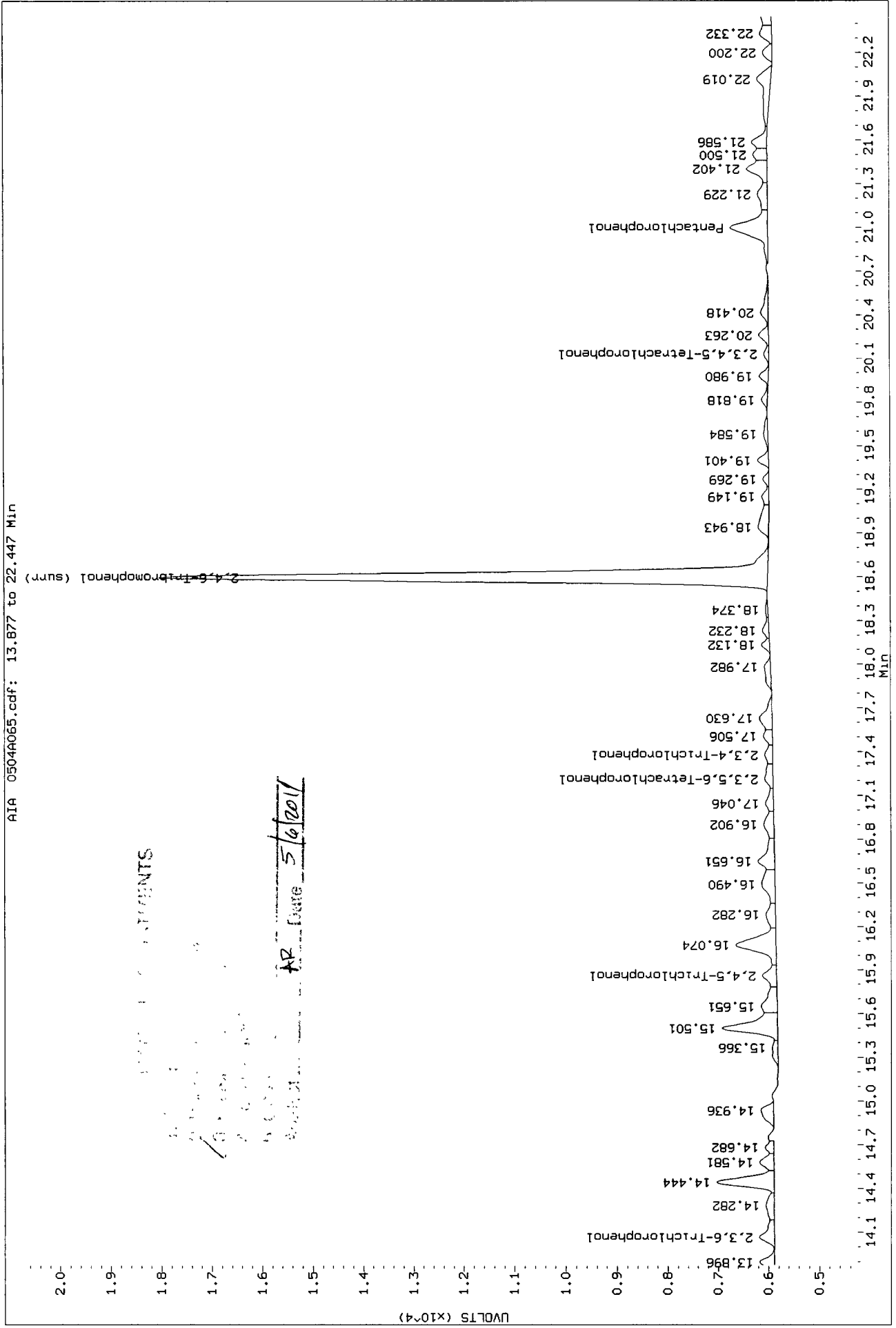


Data File: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A065.d/0504A065.cdf
 Injection Date: 05-MAY-2011 23:48
 Instrument: ecdl.i
 Client Sample ID: LL-SB1-0-0.5-041911

AIA 0504A065.cdf: 10.338 to 25.574 Min



Data File: /chem2/ecdl1/PCP20110504.b/0504-1.b/0504A065.d/0504A065.cdf
 Injection Date: 05-MAY-2011 23:48
 Instrument: ecdl1.1
 Client Sample ID: LL-SB1-0-0.5-041911



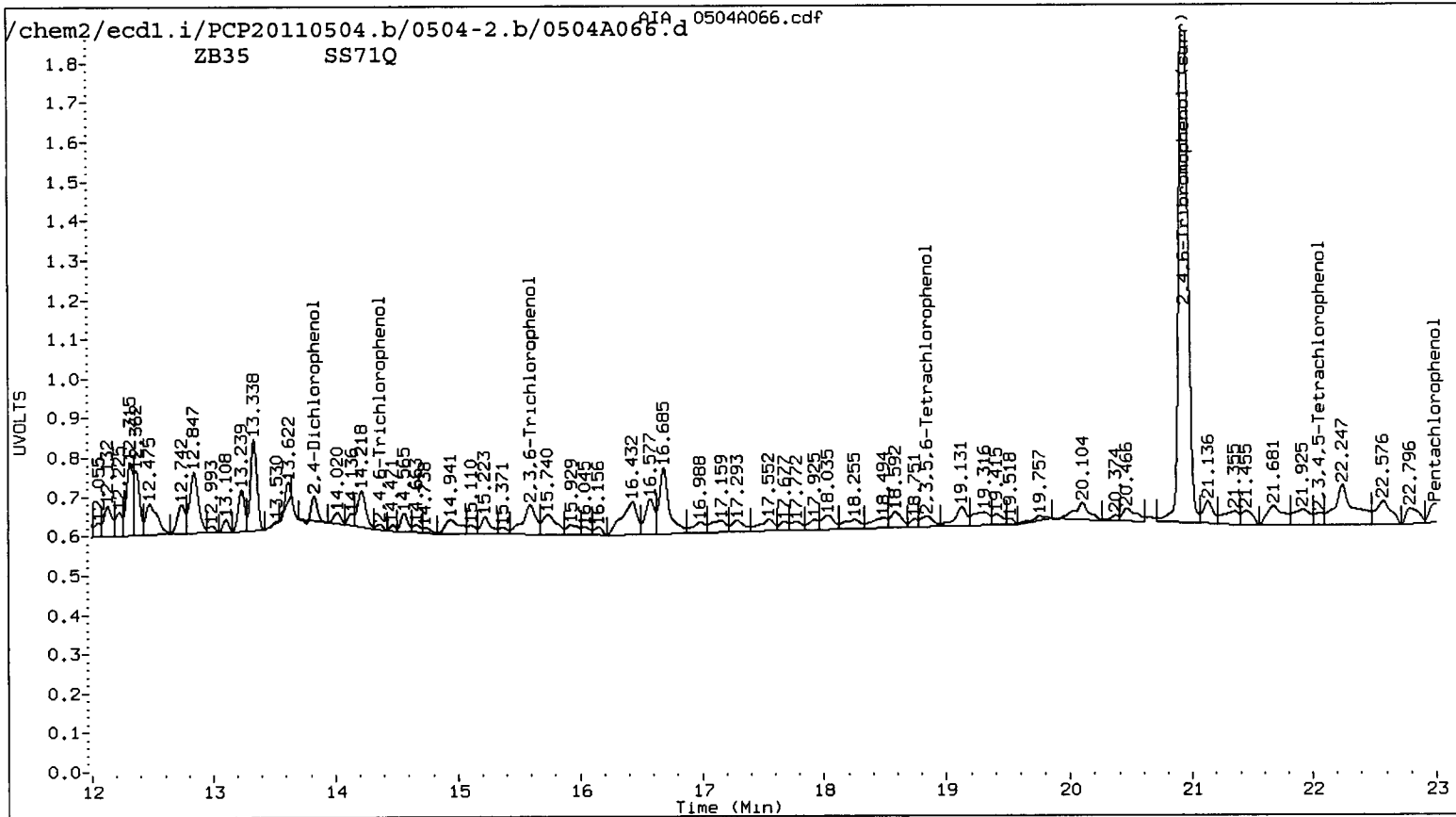
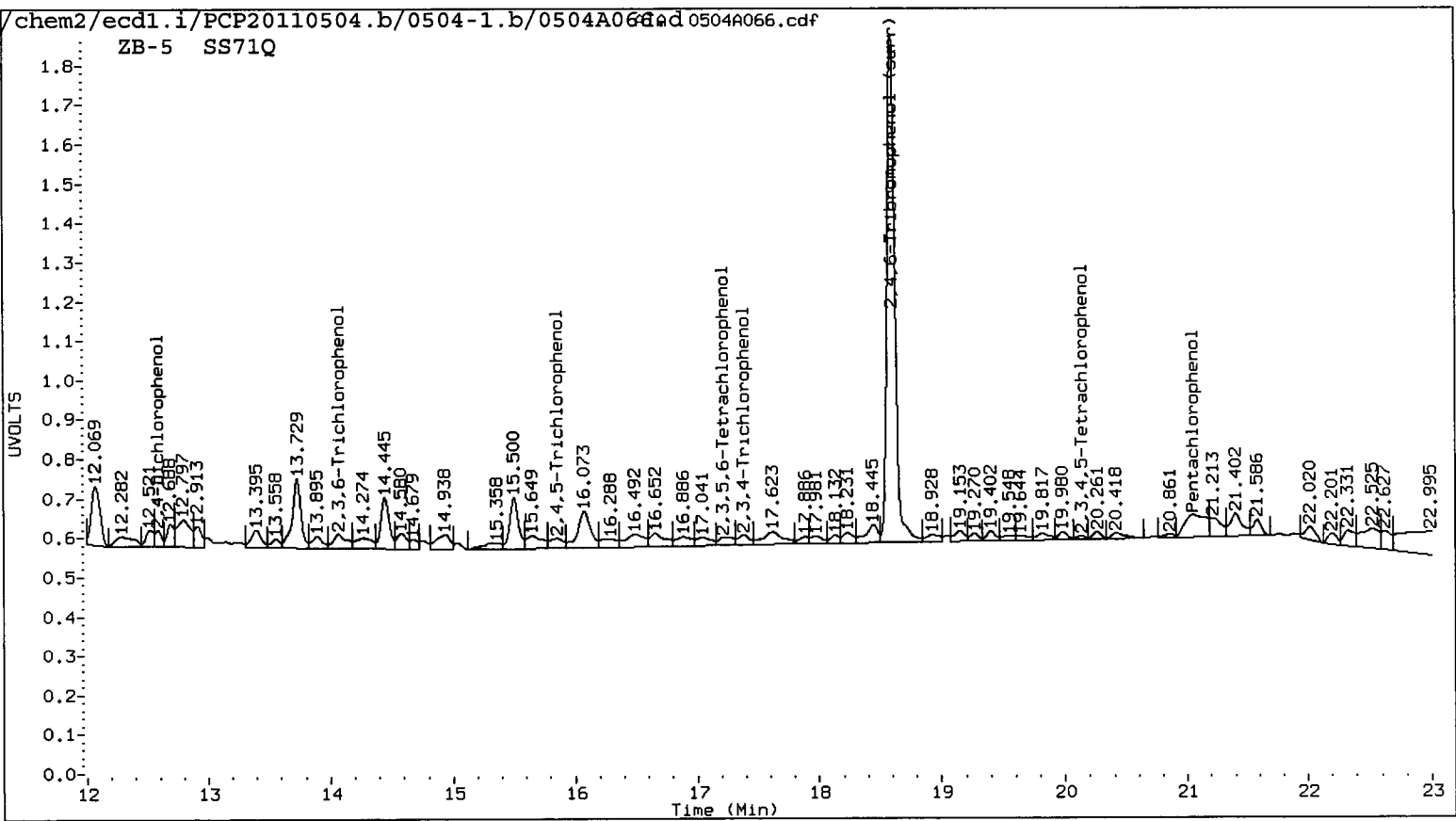
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

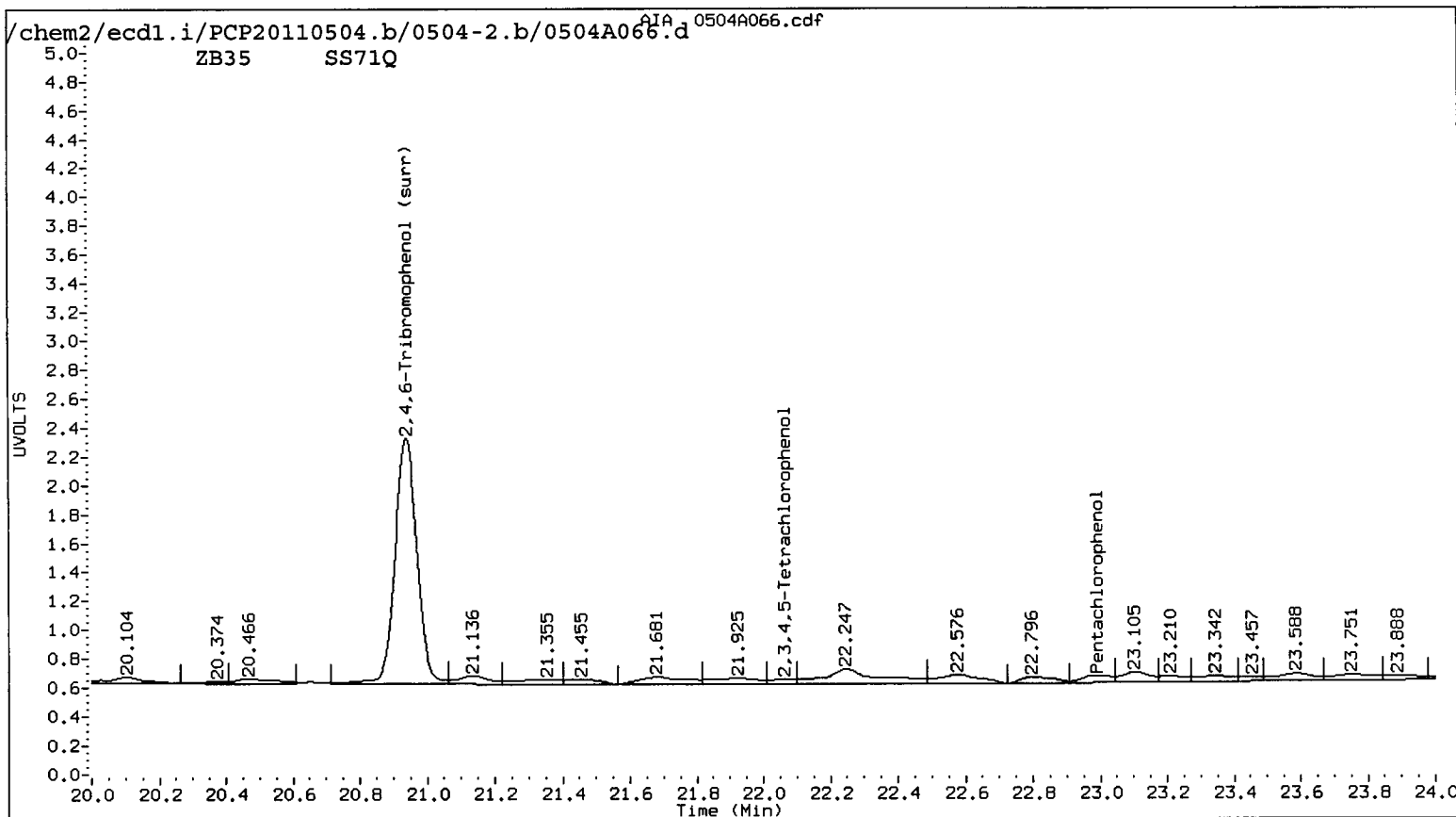
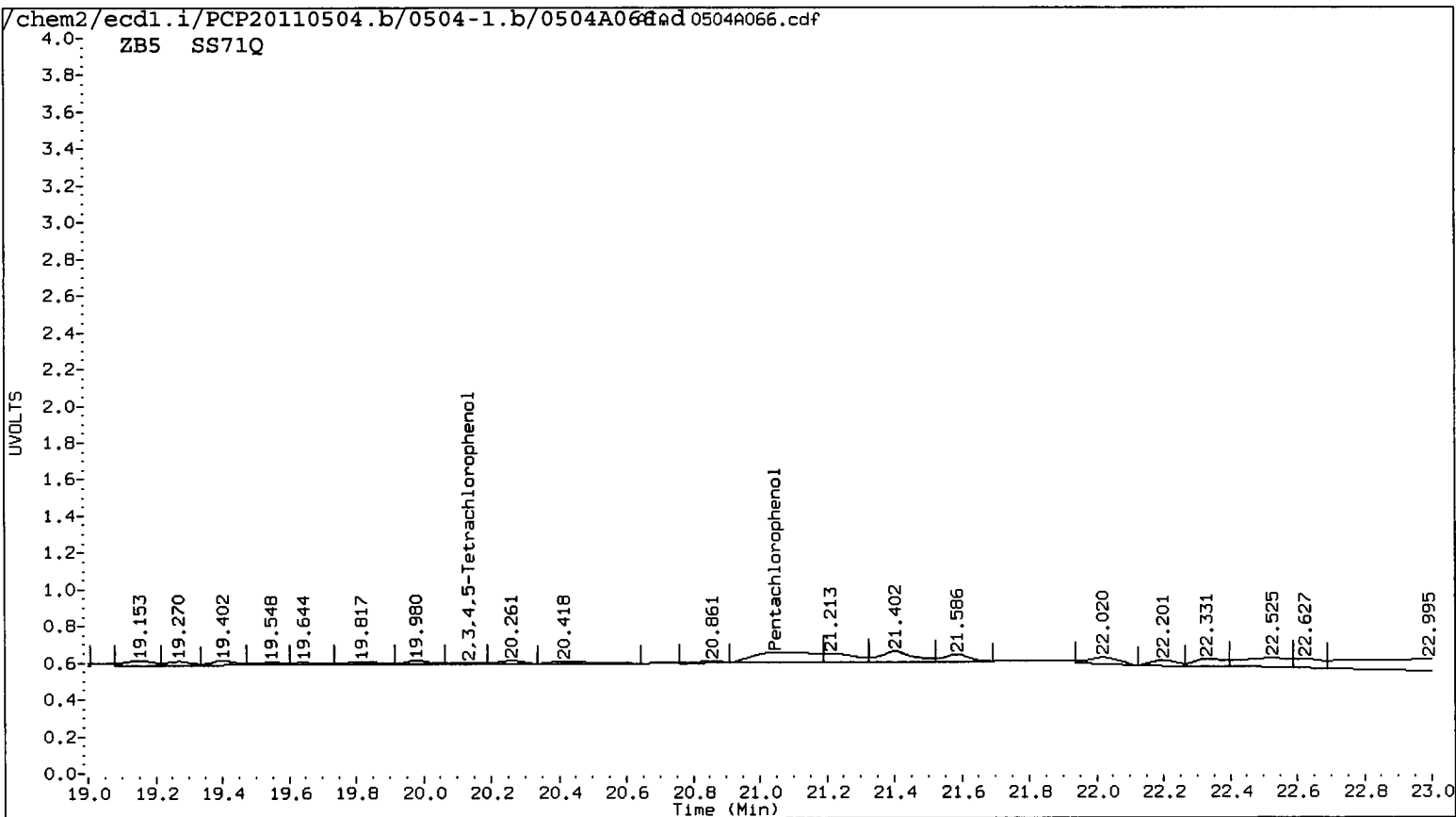
Data file 1: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A066.d ARI ID: SS71Q
 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A066.d Client ID: LL-SB1-0-0.5-041911
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 06-MAY-2011 00:24
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.048	0.051	34983	22.989	0.022	14458	1.7362	0.5134 ²	108.7*	Pentachlorophenol
----			14.365	0.054	2536	0.0000	0.1750	---	2,4,6-Trichlorophenol
14.066	-0.031	13750	15.593	0.036	29017	1.2006	2.0189	50.8*	2,3,6-Trichlorophenol
15.853	0.008	9226	----			1.2059	0.0000	---	2,4,5-Trichlorophenol
17.381	0.029	8307	----			0.9942	0.0000	---	2,3,4-Trichlorophenol
17.218	0.066	7908	18.847	0.033	9369	0.4678	0.4271	9.1	2,3,5,6-Tetrachlorophenol
20.133	-0.022	2404	22.063	-0.017	8008	0.1852	0.4685	86.7*	2,3,4,5-Tetrachlorophenol
12.583	0.028	7734	13.830	0.010	9886	9.6431	11.2846	15.7	2,4-Dichlorophenol
18.598	0.002	296275	20.939	0.003	383569	18.8	18.2	3.1	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	75.3	73.0





Data File: /chem2/ecdl1.i/PCP20110504.b/0504-2.b/0504A066.d

Date : 06-MAY-2011 00:24

Client ID: LL-SB1-0-0.5-041911

Sample Info: SS71Q

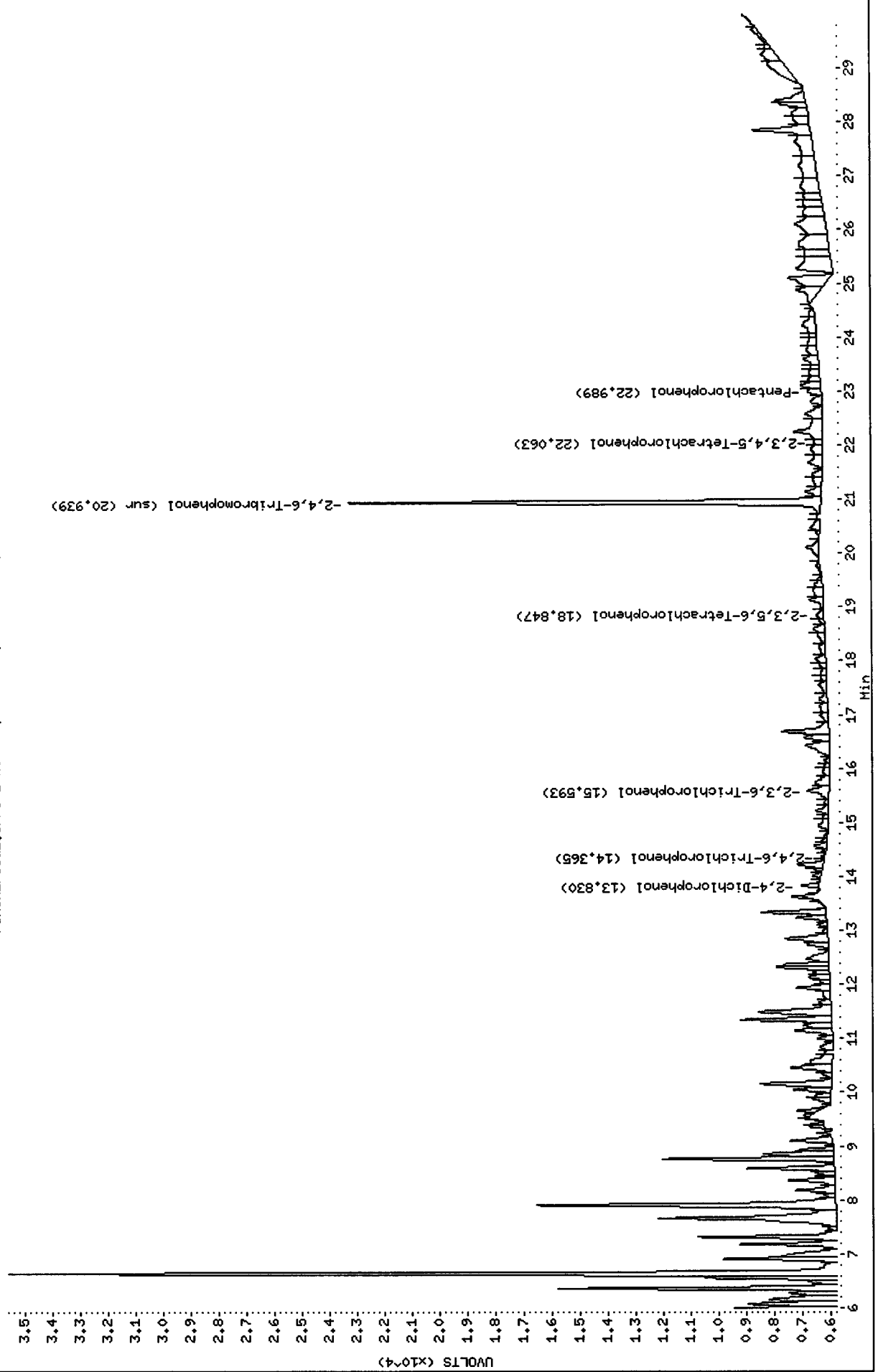
Instrument: ecdl1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

/chem2/ecdl1.i/PCP20110504.b/0504-2.b/0504A066.d/0504A066.cdf



Data File: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A066.d

Date : 06-MAY-2011 00:24

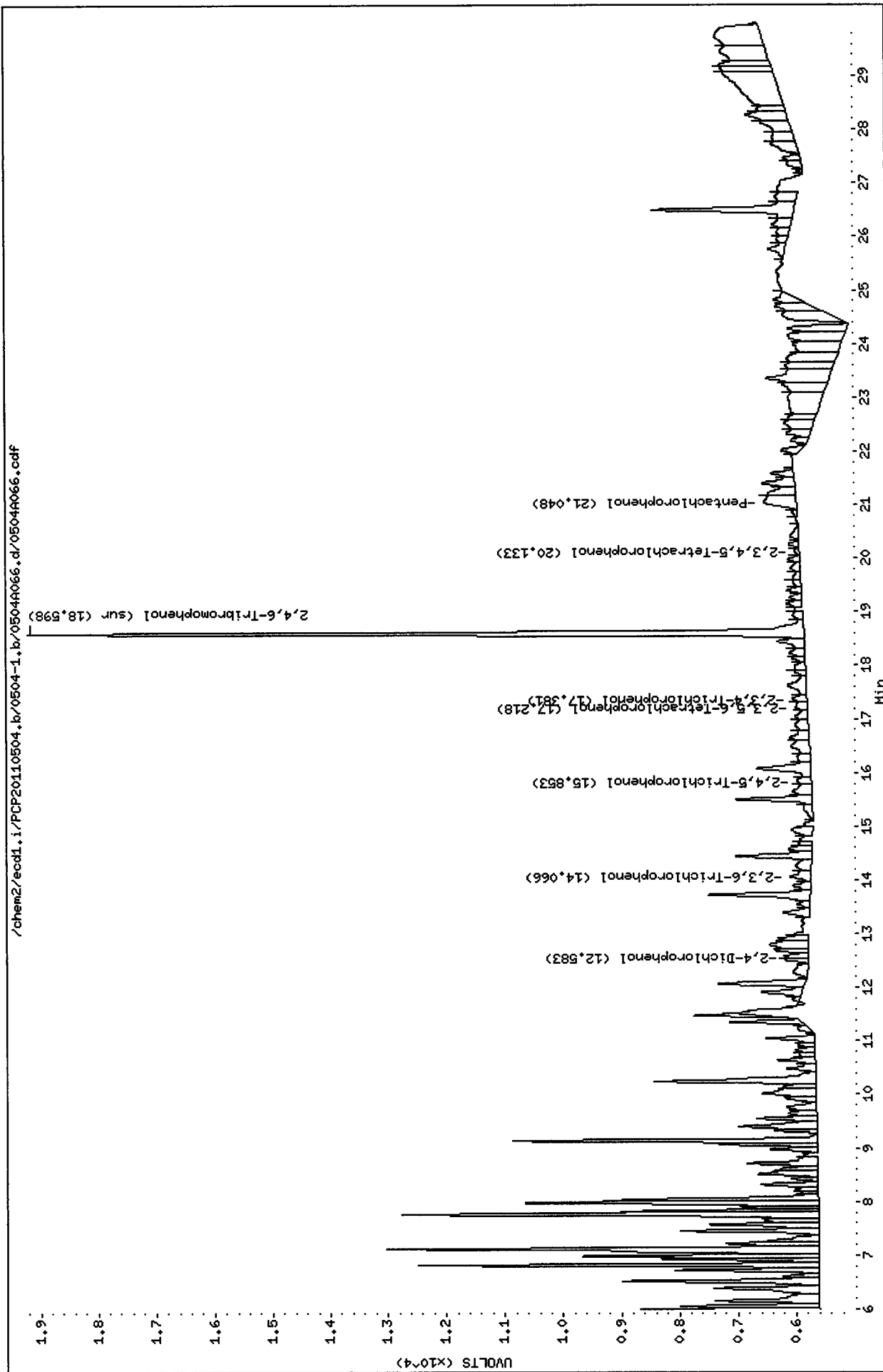
Client ID: LL-SB1-0-0.5-041911

Sample Info: SS71Q

Instrument: ecdl.i

Operator: ar
Column diameter: 0.53

Column phase: STX CLP1



SS71:01216

Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

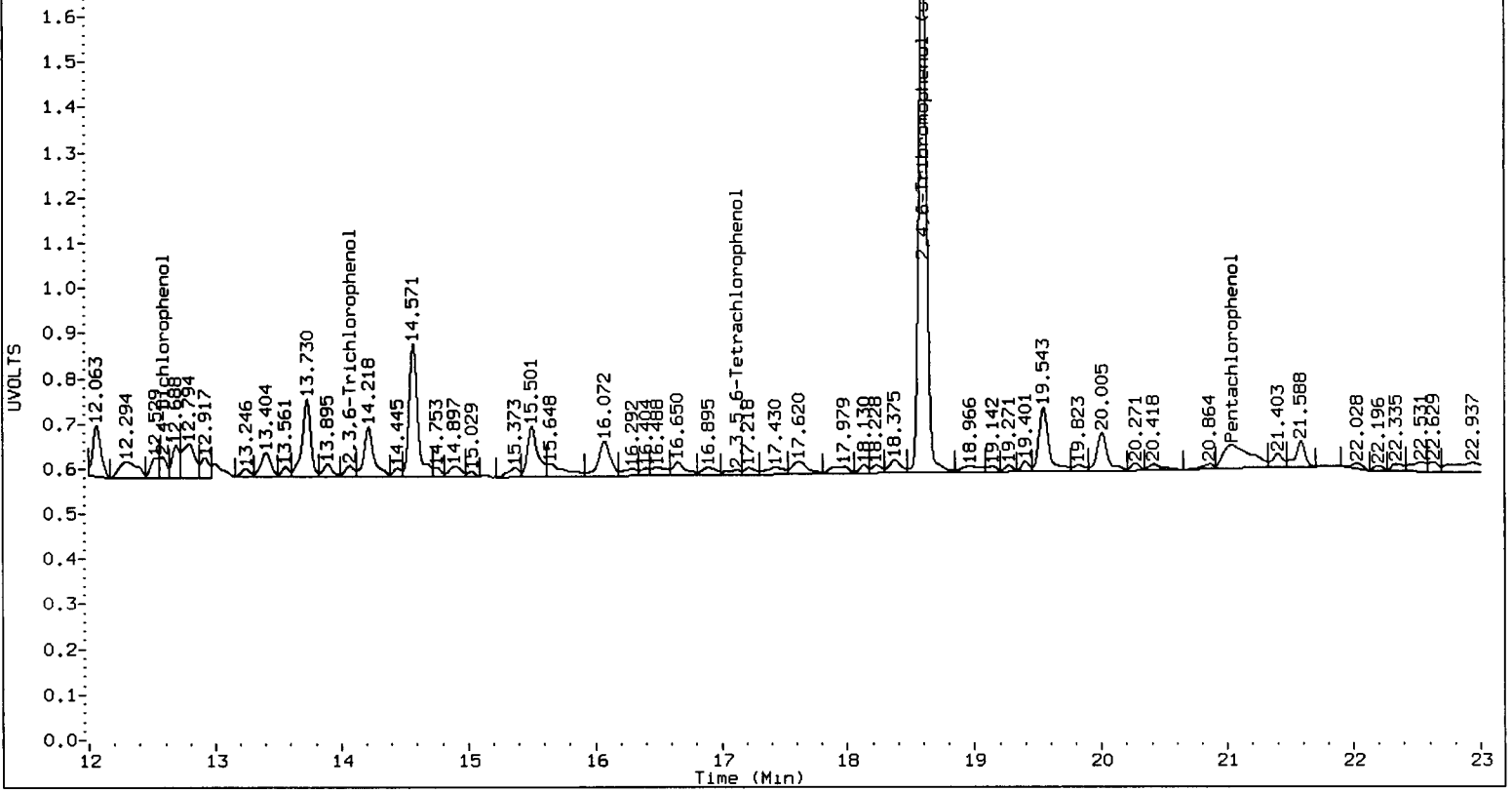
Data file 1: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A067.d ARI ID: SS71R
 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A067.d Client ID: LL-SB1-1.5-2-041911
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 06-MAY-2011 01:00
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.033	0.036	40926	22.987	0.020	8062	2.0312	0.2863	150.6*	Pentachlorophenol
----			14.366	0.055	2838	0.0000	0.1958	---	2,4,6-Trichlorophenol
14.066	-0.031	6127	15.599	0.042	26268	0.5350	1.8275	109.4*	2,3,6-Trichlorophenol
----			-----			0.0000	0.0000	---	2,4,5-Trichlorophenol
----			19.081	0.058	4680	0.0000	0.4468	---	2,3,4-Trichlorophenol
17.119	-0.033	4002	18.841	0.027	7164	0.2367	0.3266	31.9	2,3,5,6-Tetrachlorophenol
----			22.057	-0.023	6934	0.0000	0.4056	---	2,3,4,5-Tetrachlorophenol
12.579	0.024	8870	13.835	0.015	6206	11.0774	7.0447	44.5*	2,4-Dichlorophenol
18.599	0.003	257874	20.940	0.004	349000	16.4	16.6	1.3	2,4,6-Tribromophenol (surr)

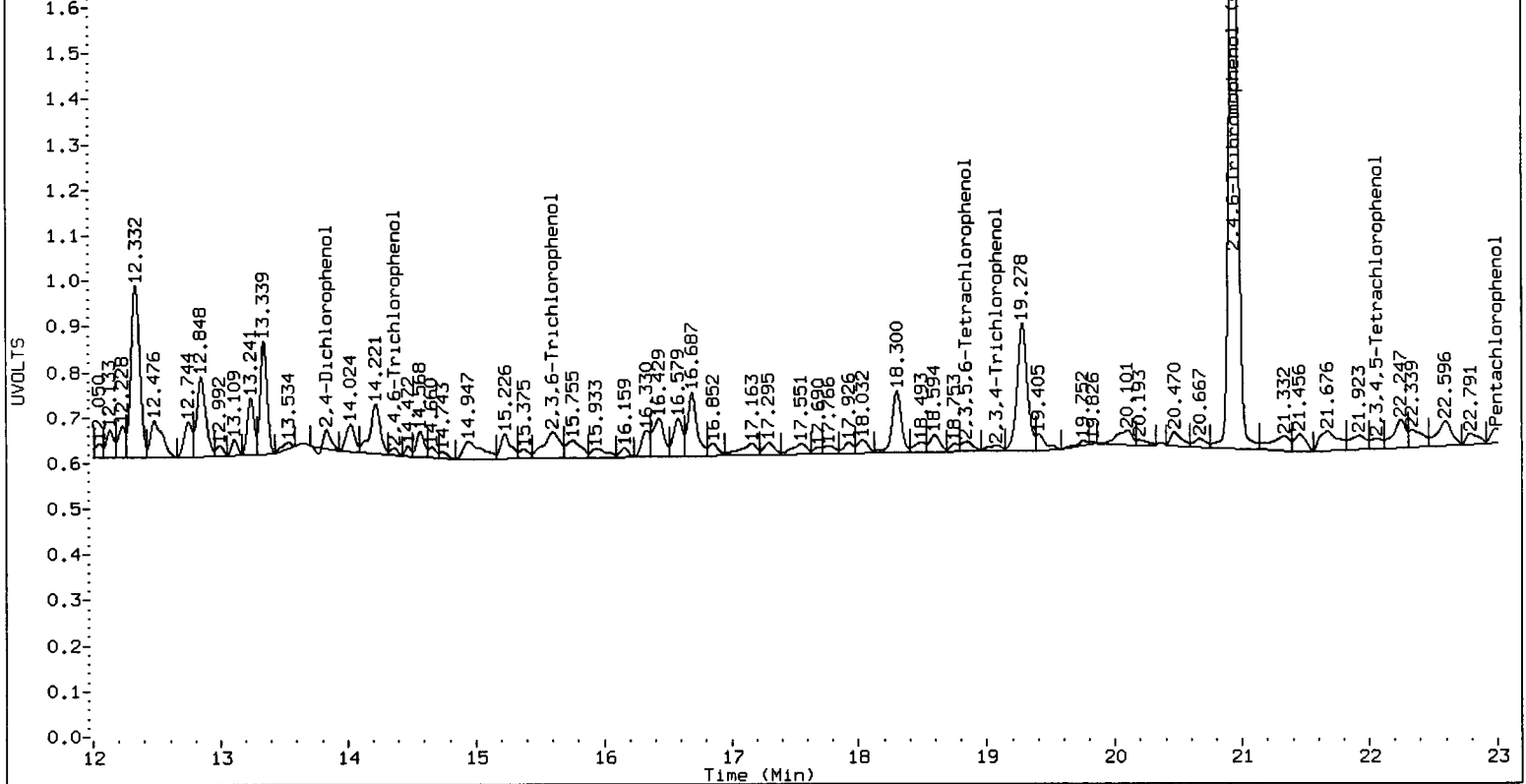
PERCENT RECOVERY

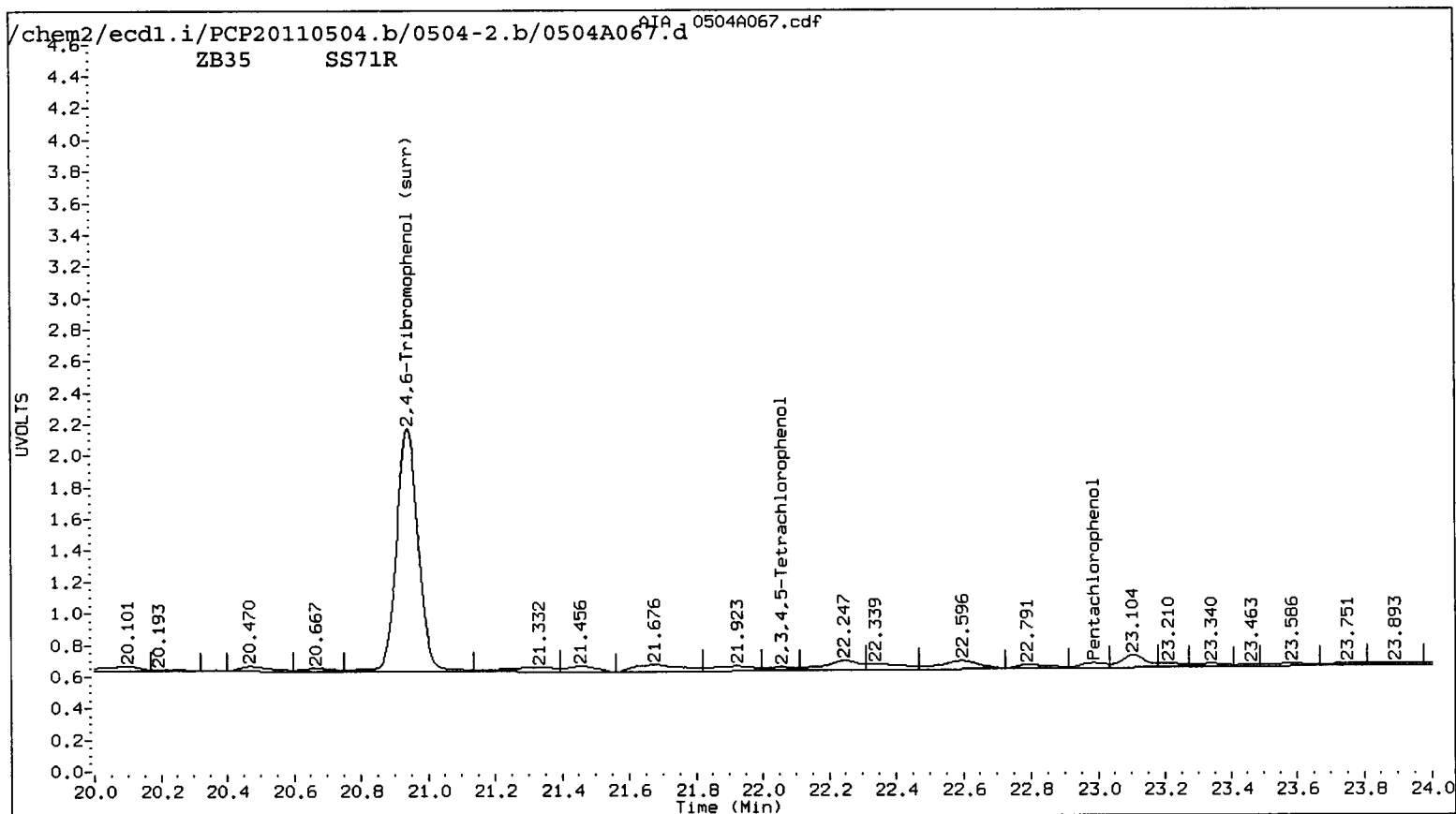
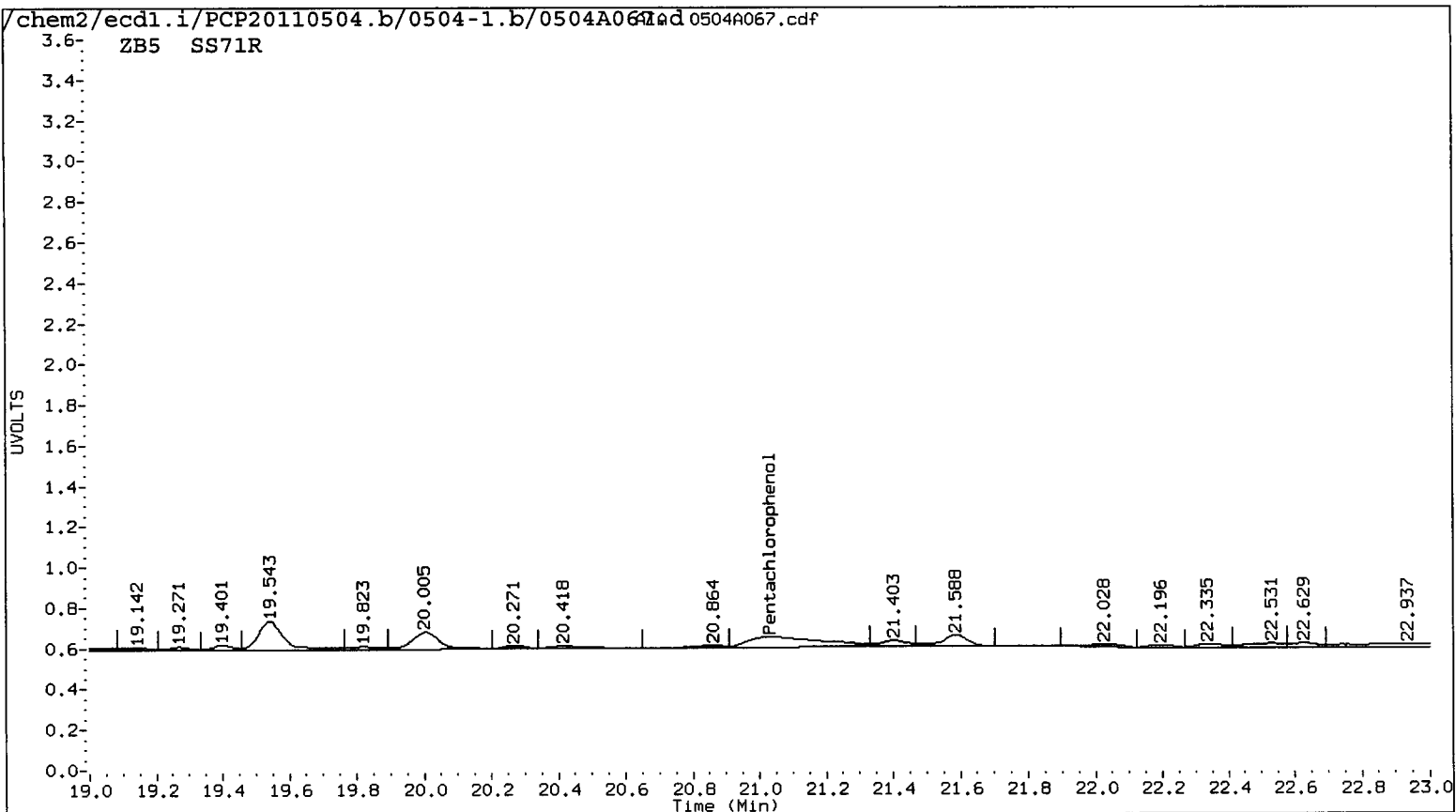
COMPOUND	Col1	Col2
2,4,6-TBP (surr)	65.5	66.4

chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A067.d 0504A067.cdf
ZB-5 SS71R



chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A067.d 0504A067.cdf
ZB35 SS71R





Data File: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504R067.d

Date : 06-May-2011 01:00

Client ID: LL-SB1-1.5-2-041911

Sample Info: SS71R

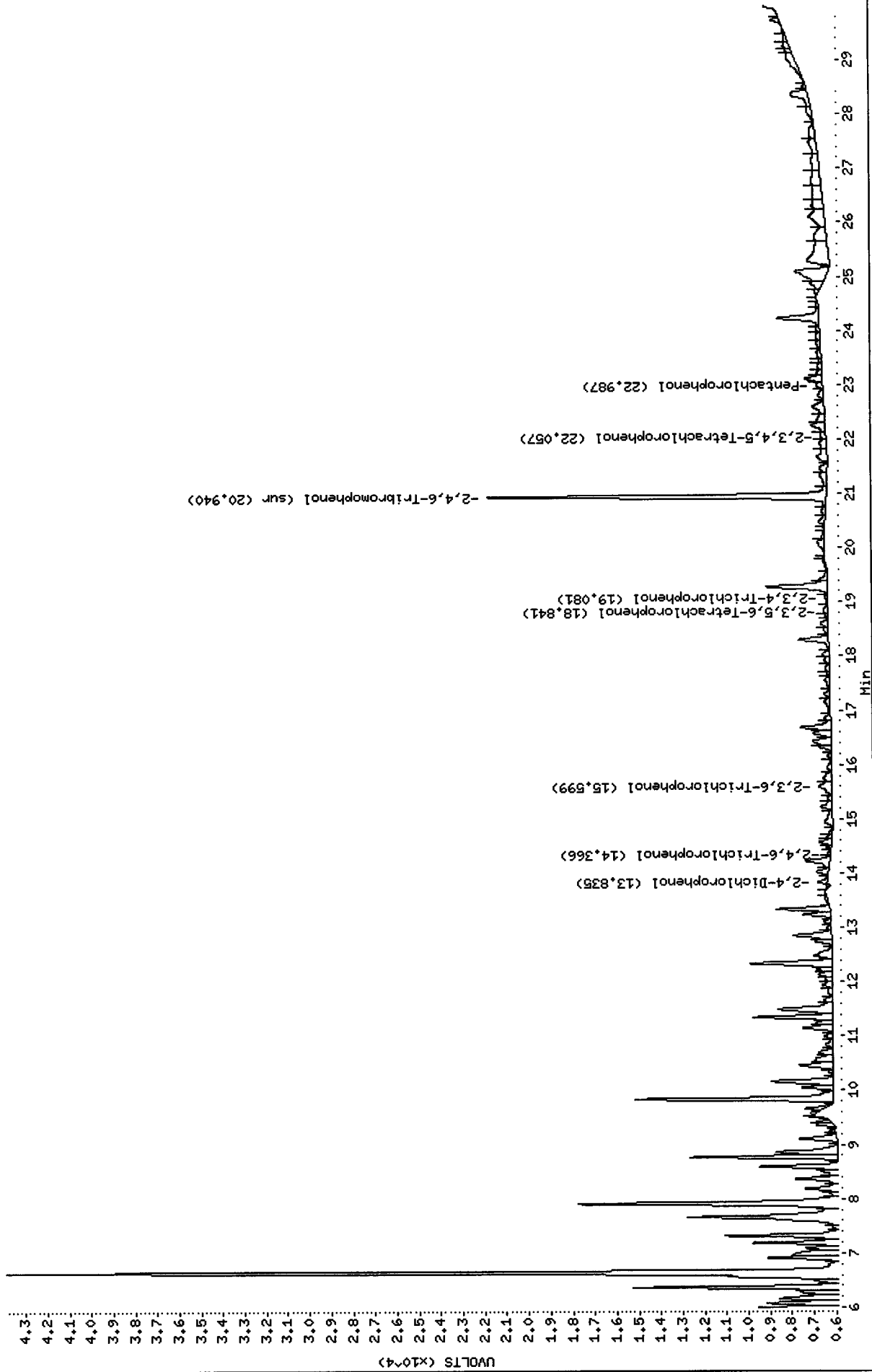
Instrument: ecdl.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

/chem2/ecdl.i/PCP20110504.b/0504-2.b/0504R067.d/0504R067.cdf



Data File: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A067.d

Date : 06-MAY-2011 01:00

Client ID: LL-SB1-1.5-2-041911

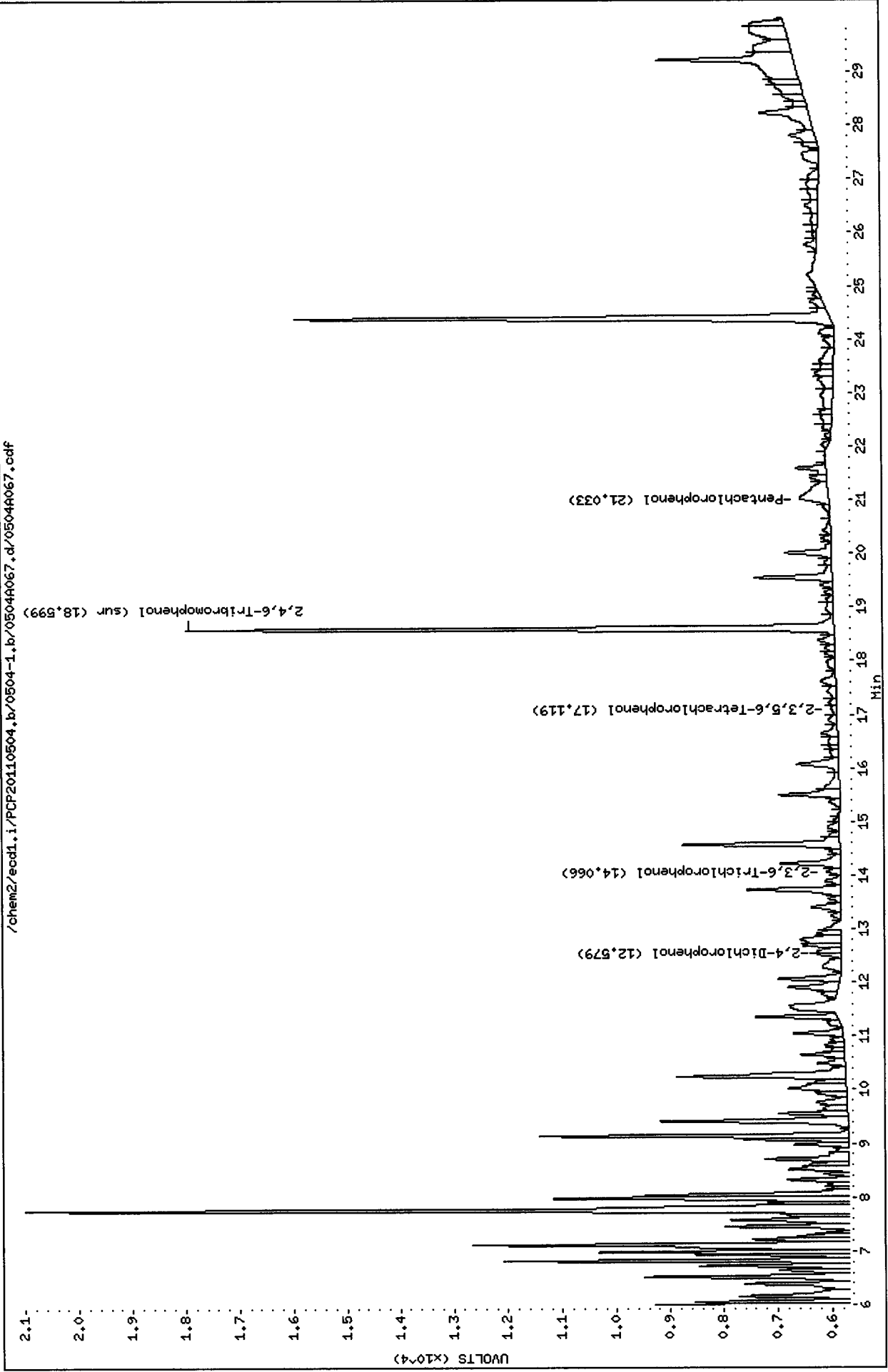
Sample Info: SS71R

Instrument: ecdl.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1



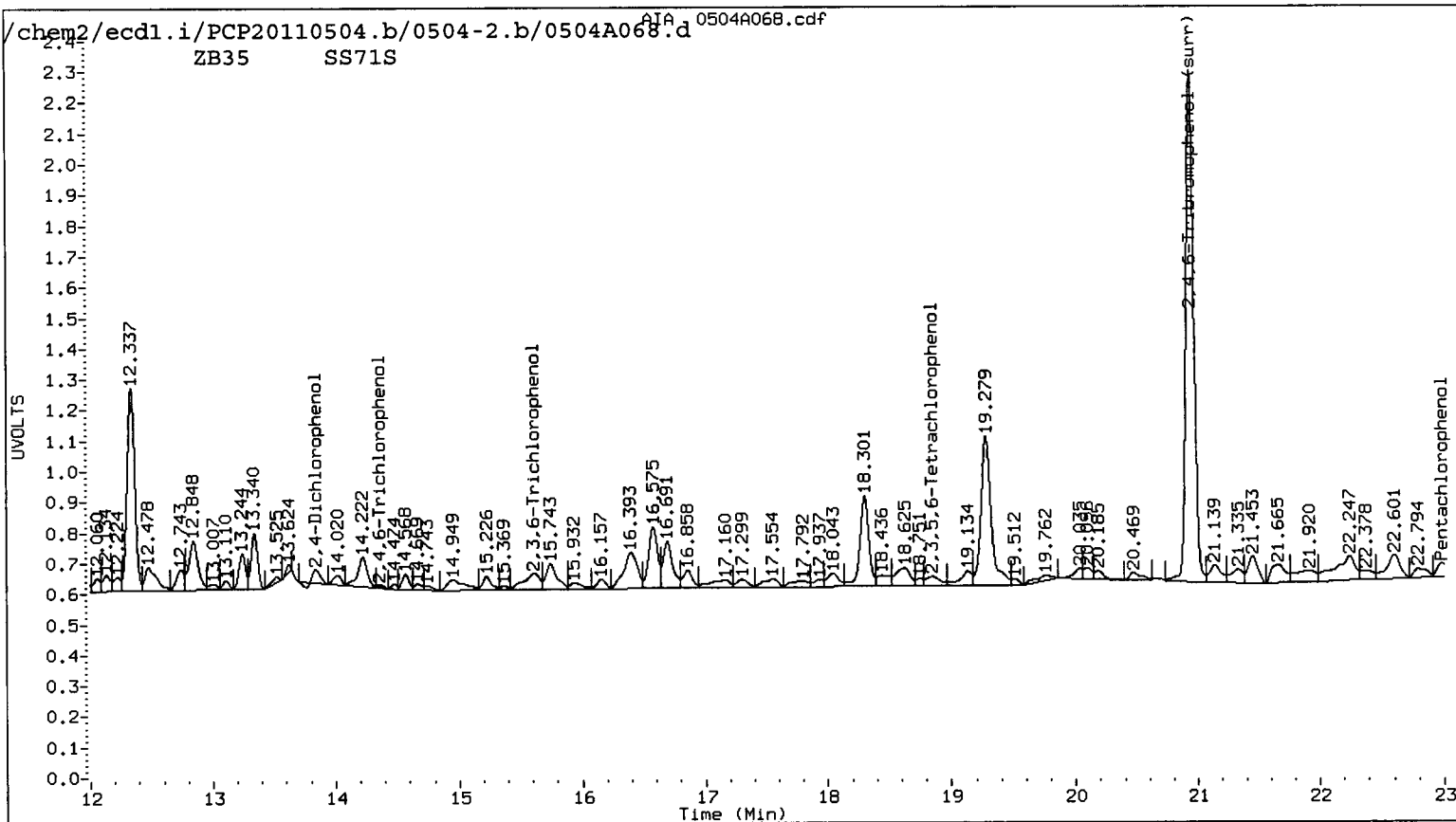
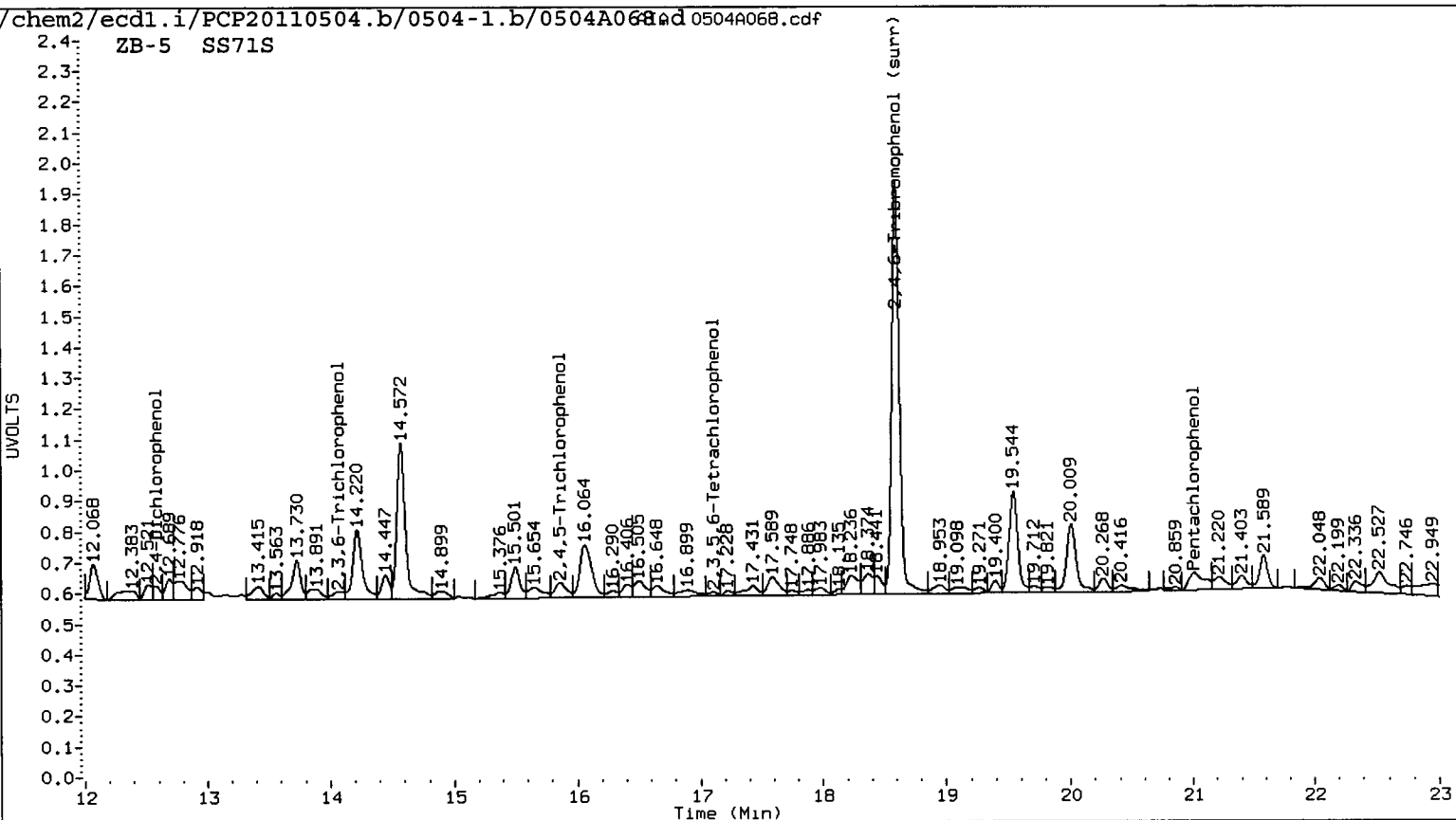
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

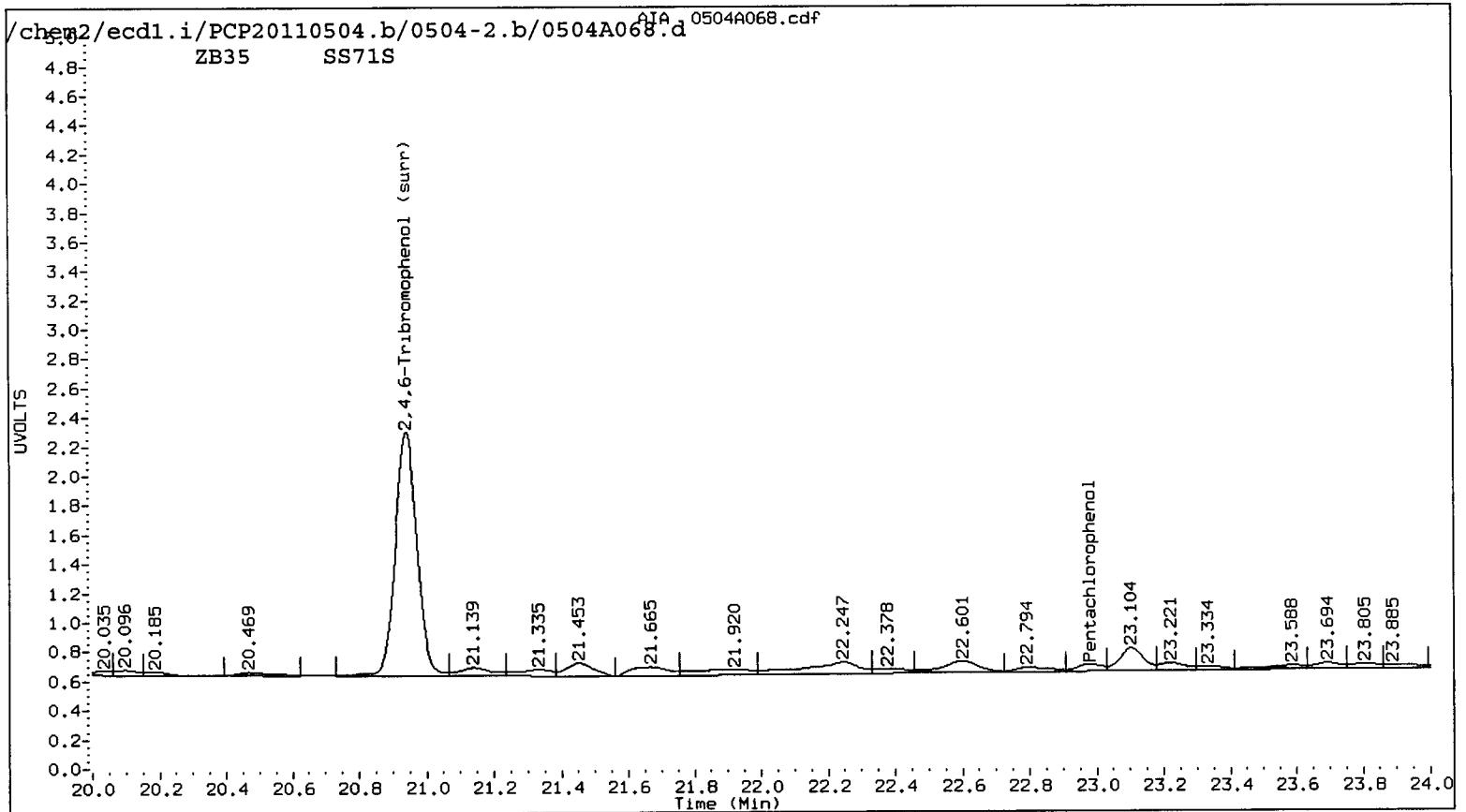
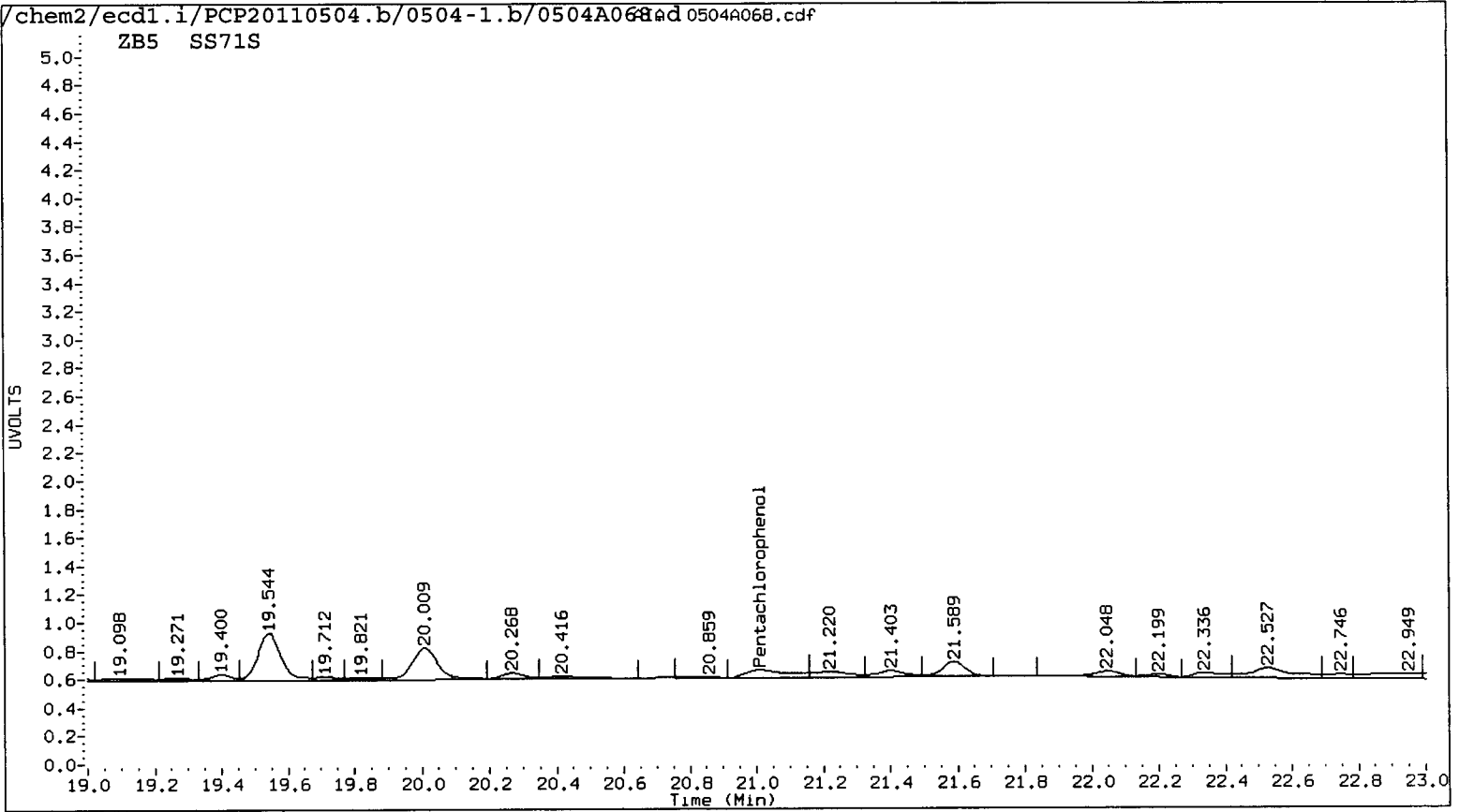
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 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A068.d Client ID: LL-SB1-2-4-041911
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 06-MAY-2011 01:37
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: SOIL
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.011	0.014	25746	22.979	0.012	11460	1.2778	0.4070	103.4*	Pentachlorophenol
----			14.363	0.052	2079	0.0000	0.1435	---	2,4,6-Trichlorophenol
14.074	-0.023	7915	15.610	0.053	23360	0.6912	1.6252	80.6*	2,3,6-Trichlorophenol
15.861	0.016	15751	----			2.0719	0.0000	---	2,4,5-Trichlorophenol
----			----			0.0000	0.0000	---	2,3,4-Trichlorophenol
17.111	-0.041	3306	18.850	0.036	11624	0.1956	0.5299	92.2*	2,3,5,6-Tetrachlorophenol
----			----			0.0000	0.0000	---	2,3,4,5-Tetrachlorophenol
12.579	0.024	8808	13.841	0.021	7293	10.9990	8.2937	28.1	2,4-Dichlorophenol
18.600	0.004	294893	20.941	0.005	372503	18.7	17.7	5.6	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

COMPOUND	Col1	Col2
2,4,6-TBP (surr)	74.9	70.9





Data File: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A068.d

Date : 06-MAY-2011 01:37

Client ID: LL-SB1-2-4-041911

Sample Info: SS71S

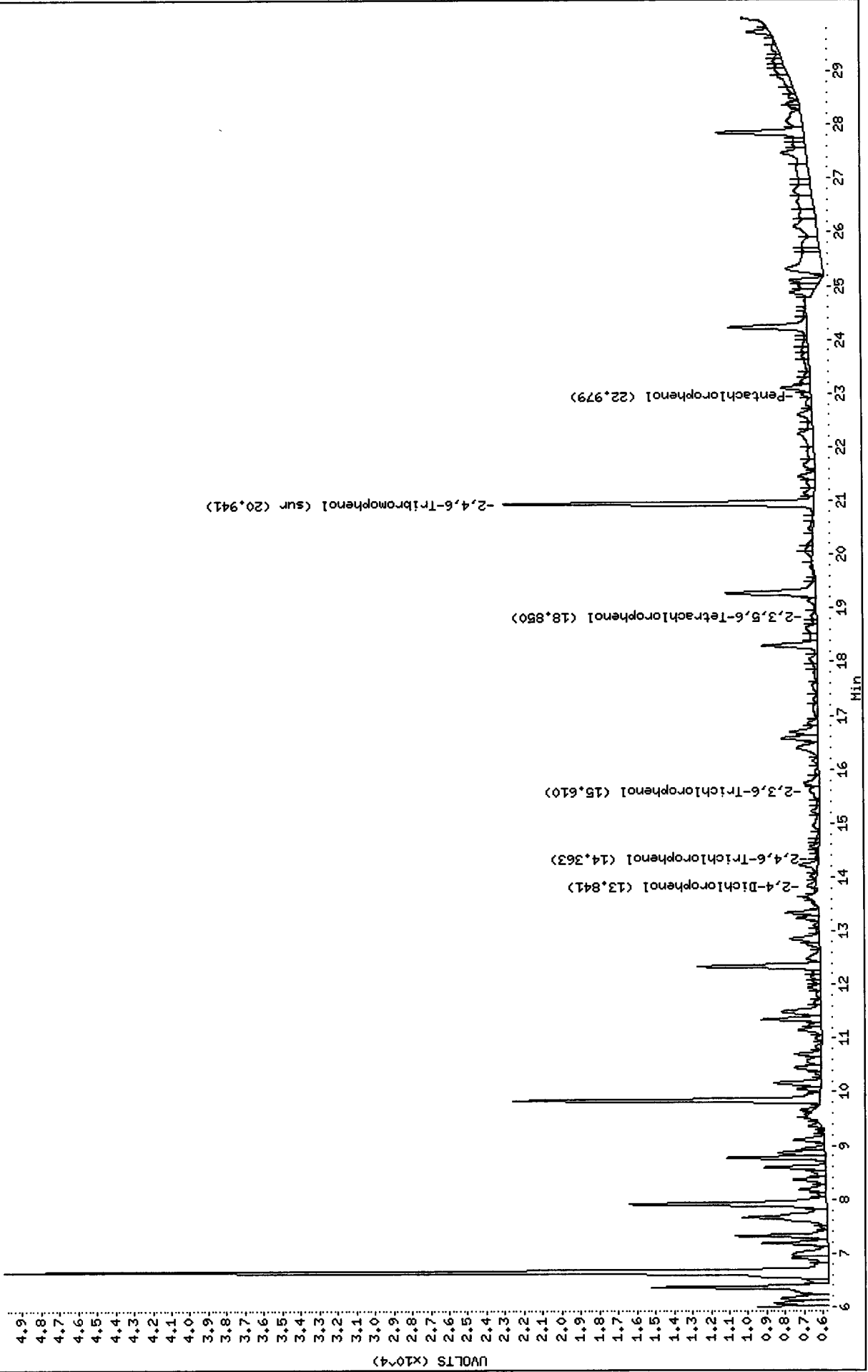
Instrument: ecd1.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP2

/chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A068.d/0504A068.cdf



Data File: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A068.d

Date : 06-MAY-2011 01:37

Client ID: LL-SB1-2-4-041911

Sample Info: SS71S

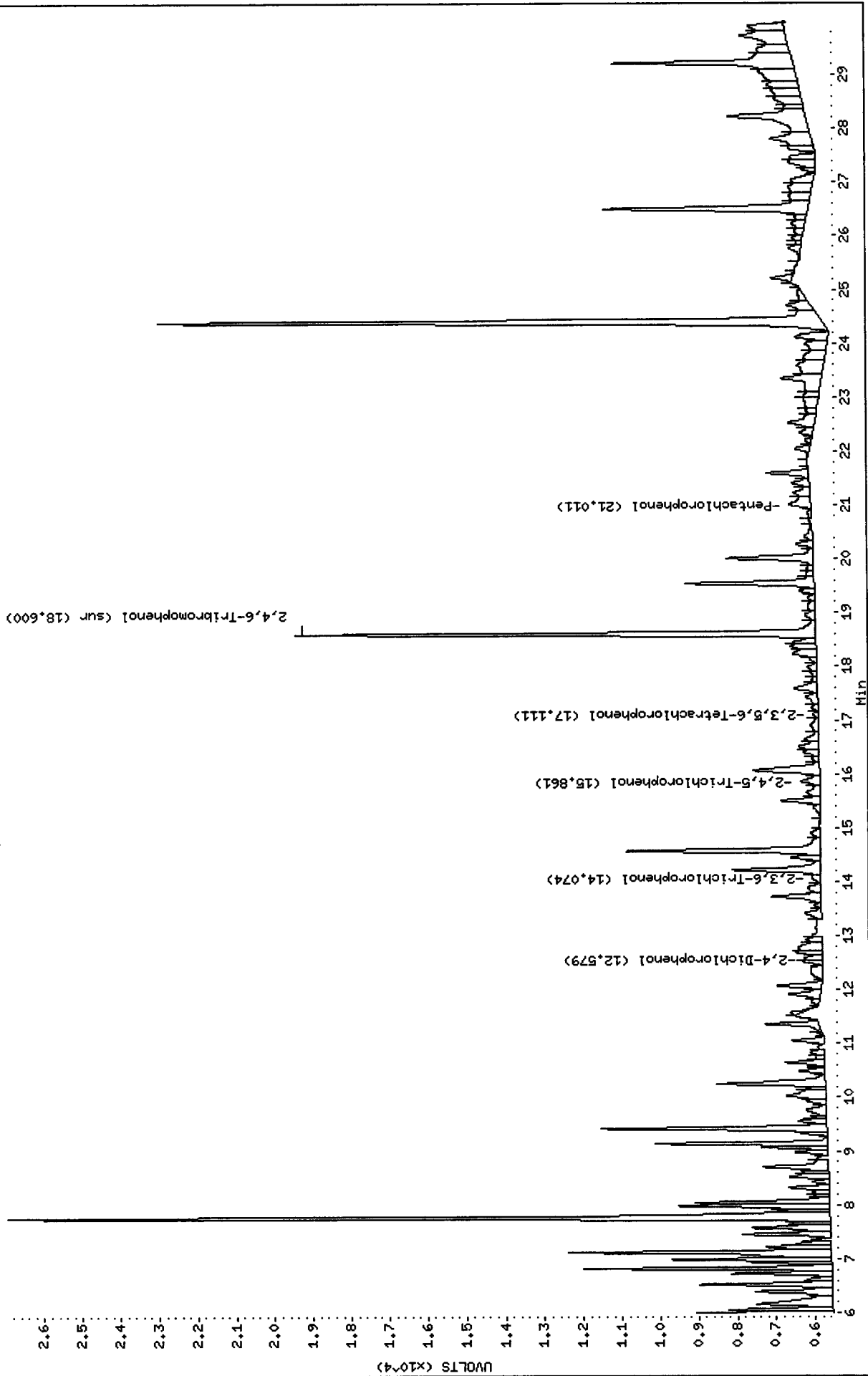
Instrument: ecdl.i

Operator: ar

Column diameter: 0.53

Column phase: STX CLP1

/chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A068.d/0504A068.cdf



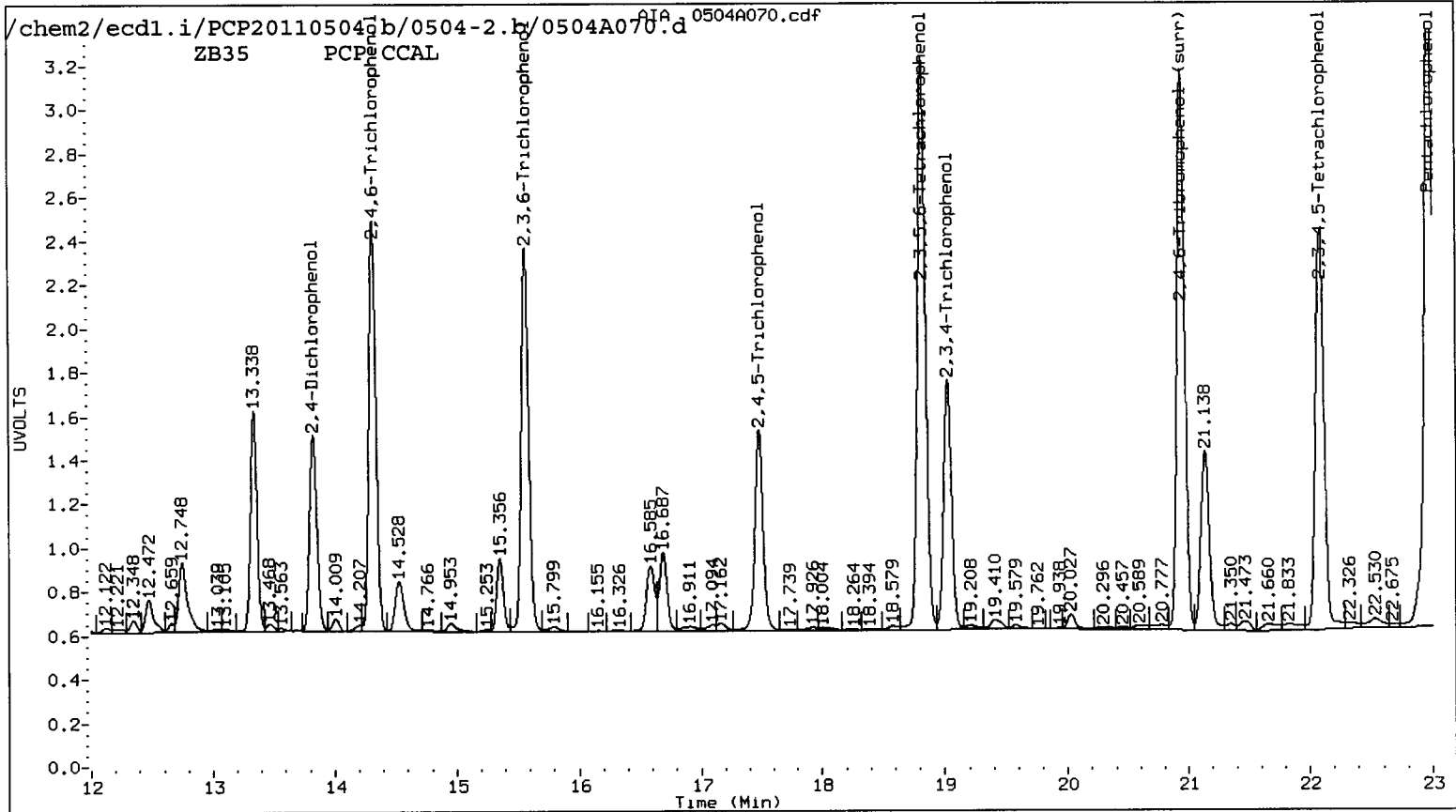
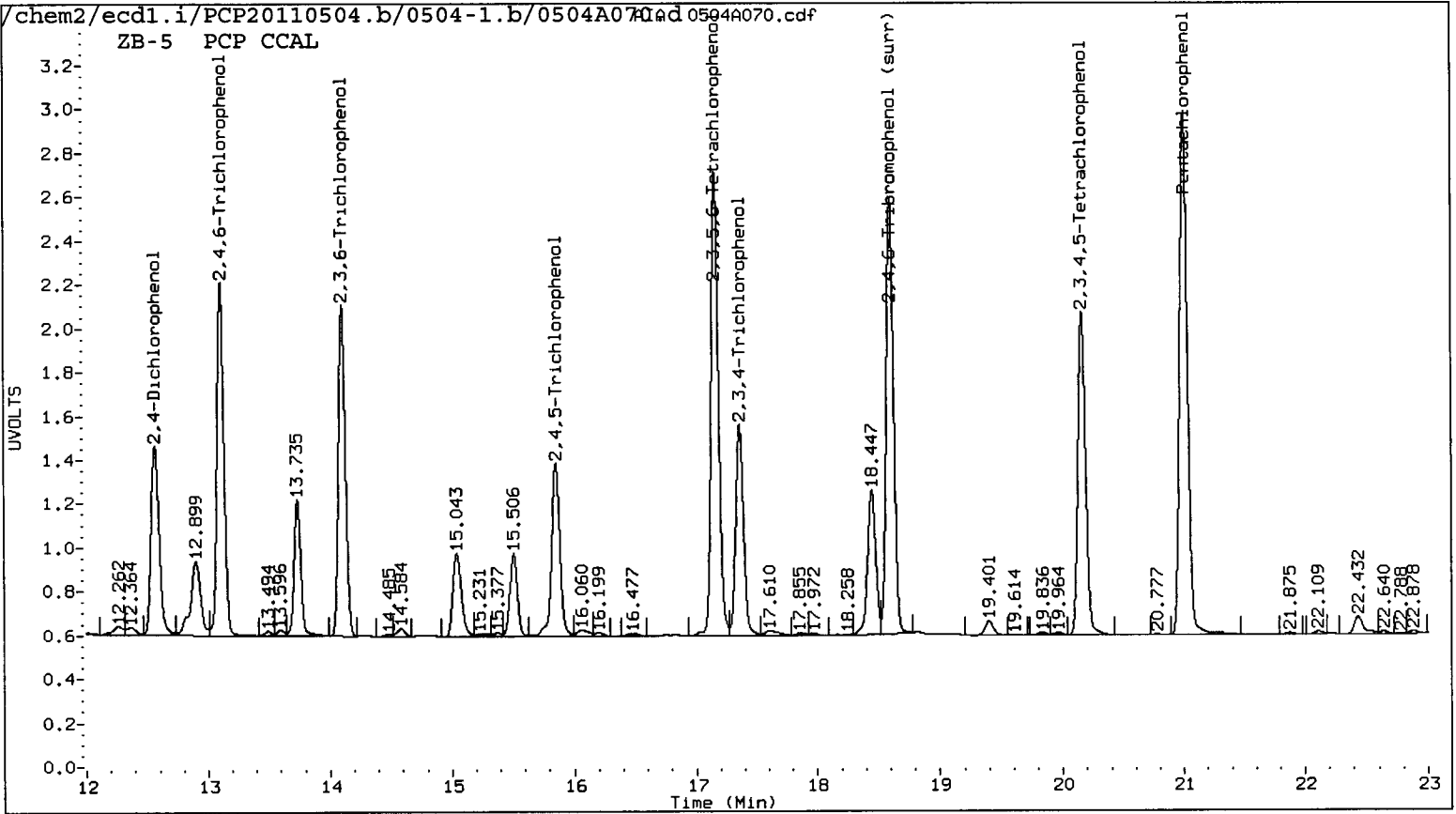
Analytical Resources Inc.
Dual Column 8041 Chlorinated Phenols Quantitation Report

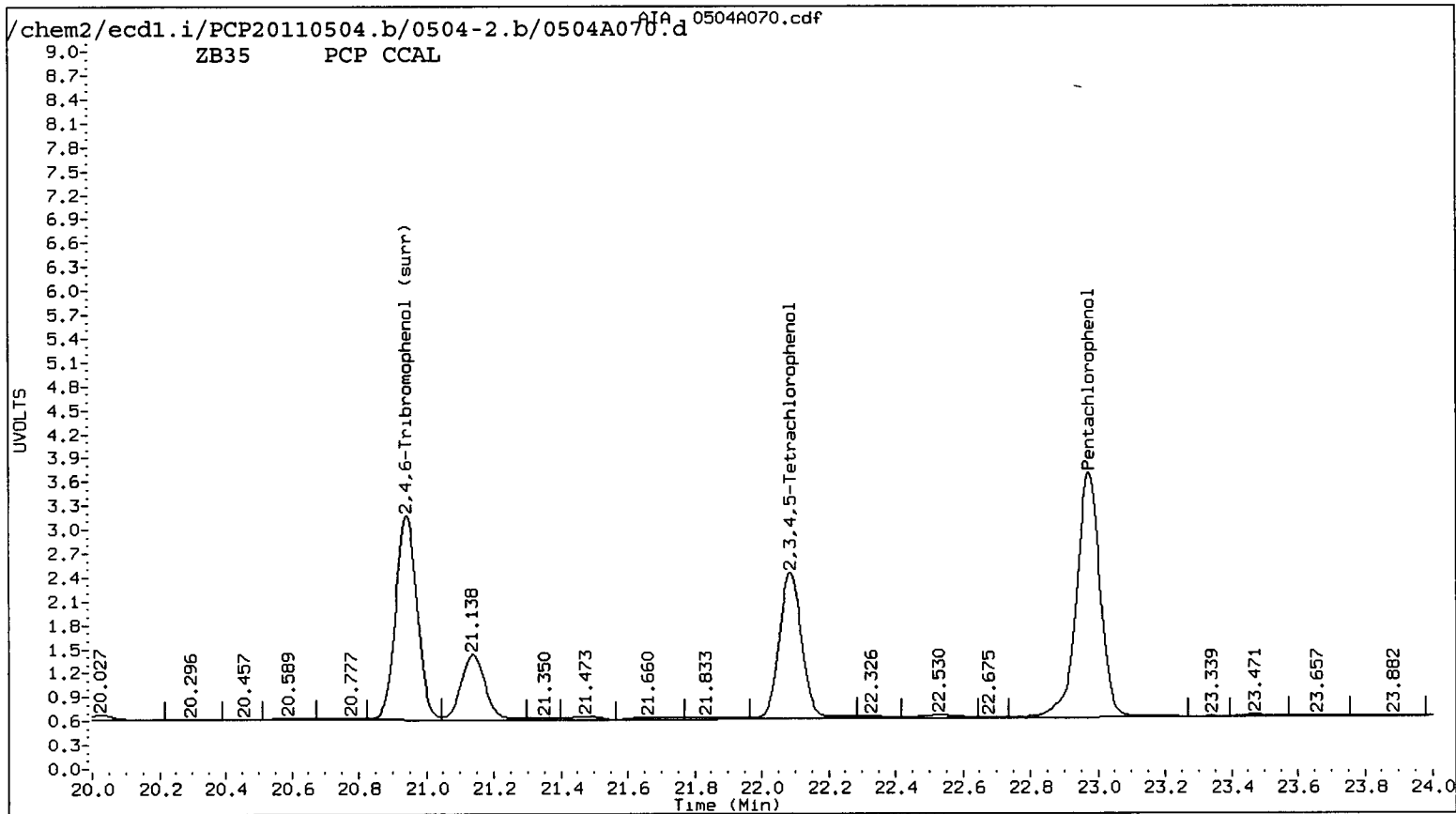
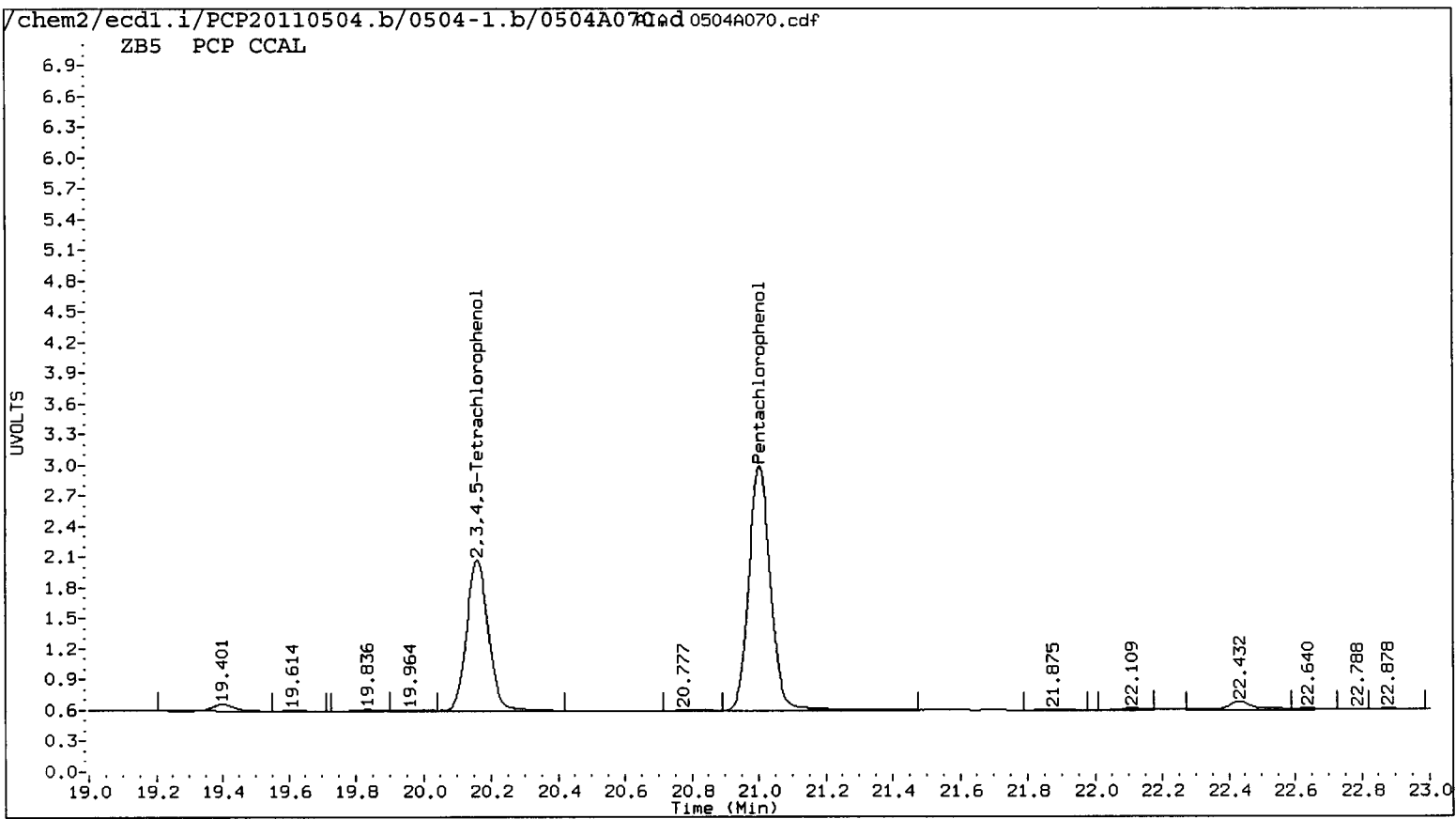
Data file 1: /chem2/ecdl.i/PCP20110504.b/0504-1.b/0504A070.d ARI ID: PCP CCAL
 Data file 2: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A070.d Client ID:
 Method: /chem2/ecdl.i/PCP20110504.b/PCP.m Injection Date: 06-MAY-2011 02:49
 Compound Sublist: all Report Date: 05/06/2011 12:20
 Instrument: ecdl.i Matrix: WATER
 Operator: ar Dilution Factor: 1.000

ZB-5 Col			ZB35 Col			ZB-5	ZB35	RPD	Compound
RT	Shift	Response	RT	Shift	Response	on col	on col		
21.003	0.006	543834	22.972	0.005	757616	26.9905	26.9032	0.3	Pentachlorophenol
13.106	0.005	322306	14.316	0.005	378307	26.4776	26.1014	1.4	2,4,6-Trichlorophenol
14.102	0.005	300795	15.563	0.006	374622	26.2643	26.0636	0.8	2,3,6-Trichlorophenol
15.850	0.005	182383	17.479	0.005	219227	27.8895	27.0796	2.9	2,4,5-Trichlorophenol
17.357	0.006	216889	19.028	0.005	258291	25.9582	28.6810	10.0	2,3,4-Trichlorophenol
17.158	0.006	458185	18.819	0.005	585706	27.1008	26.6983	1.5	2,3,5,6-Tetrachlorophenol
20.160	0.006	329798	22.086	0.006	433428	25.4047	28.7713	12.4	2,3,4,5-Tetrachlorophenol
12.563	0.008	197711	13.825	0.005	189941	313.0370	275.4663	12.8	2,4-Dichlorophenol
18.601	0.006	417561	20.942	0.006	570000	26.5	27.1	2.2	2,4,6-Tribromophenol (surr)

PERCENT RECOVERY

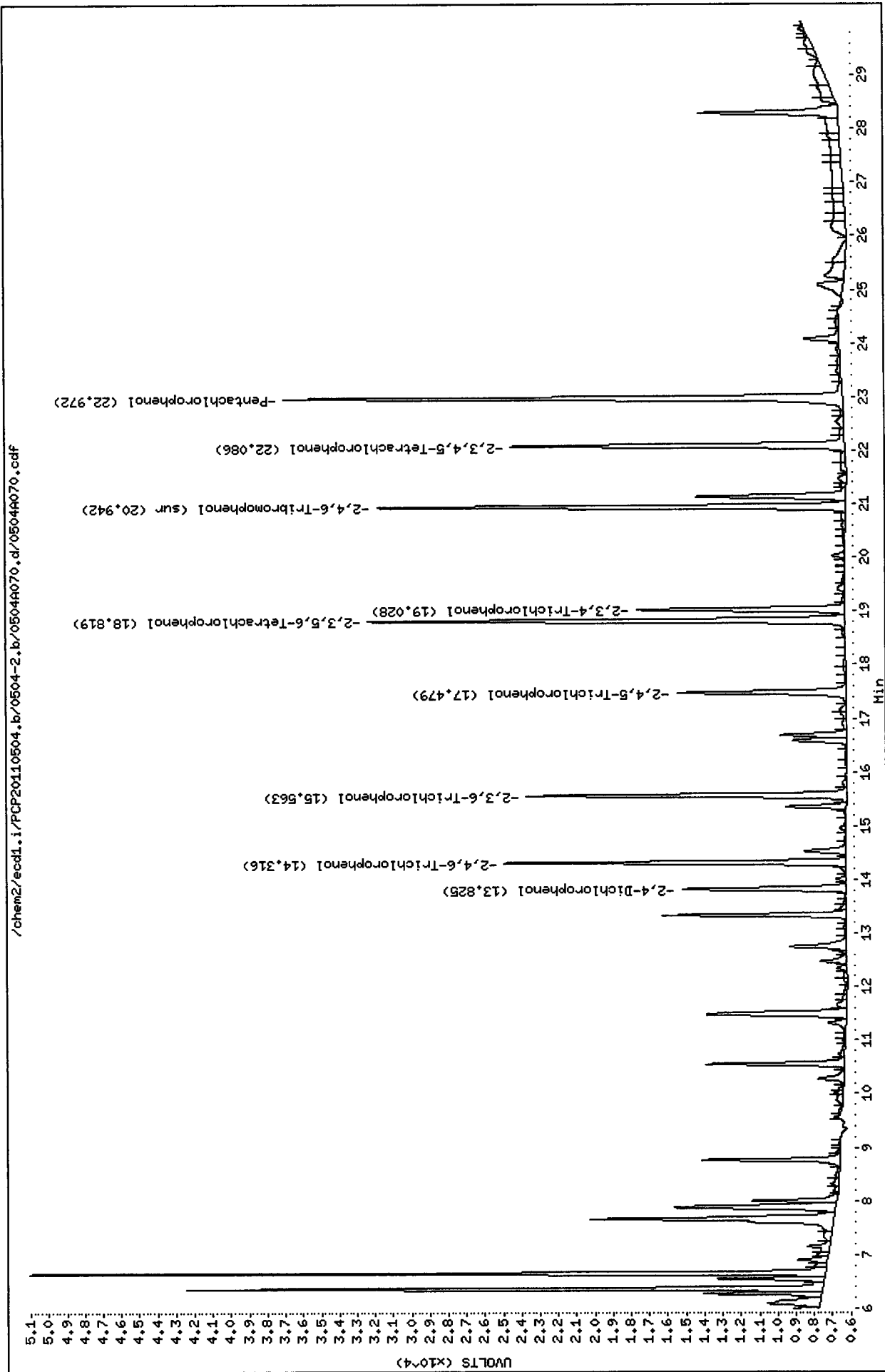
COMPOUND	Col1	Col2
Pentachlorophenol	108.0	107.6
2,4,6-Trichlorophenol	105.9	104.4
2,3,6-Trichlorophenol	105.1	104.3
2,4,5-Trichlorophenol	111.6	108.3
2,3,4-Trichlorophenol	103.8	114.7
2,3,5,6-Tetrachlorophenol	108.4	106.8
2,3,4,5-Tetrachlorophenol	101.6	115.1
2,4-Dichlorophenol	125.2	110.2
2,4,6-TBP (surr)	106.1	108.4





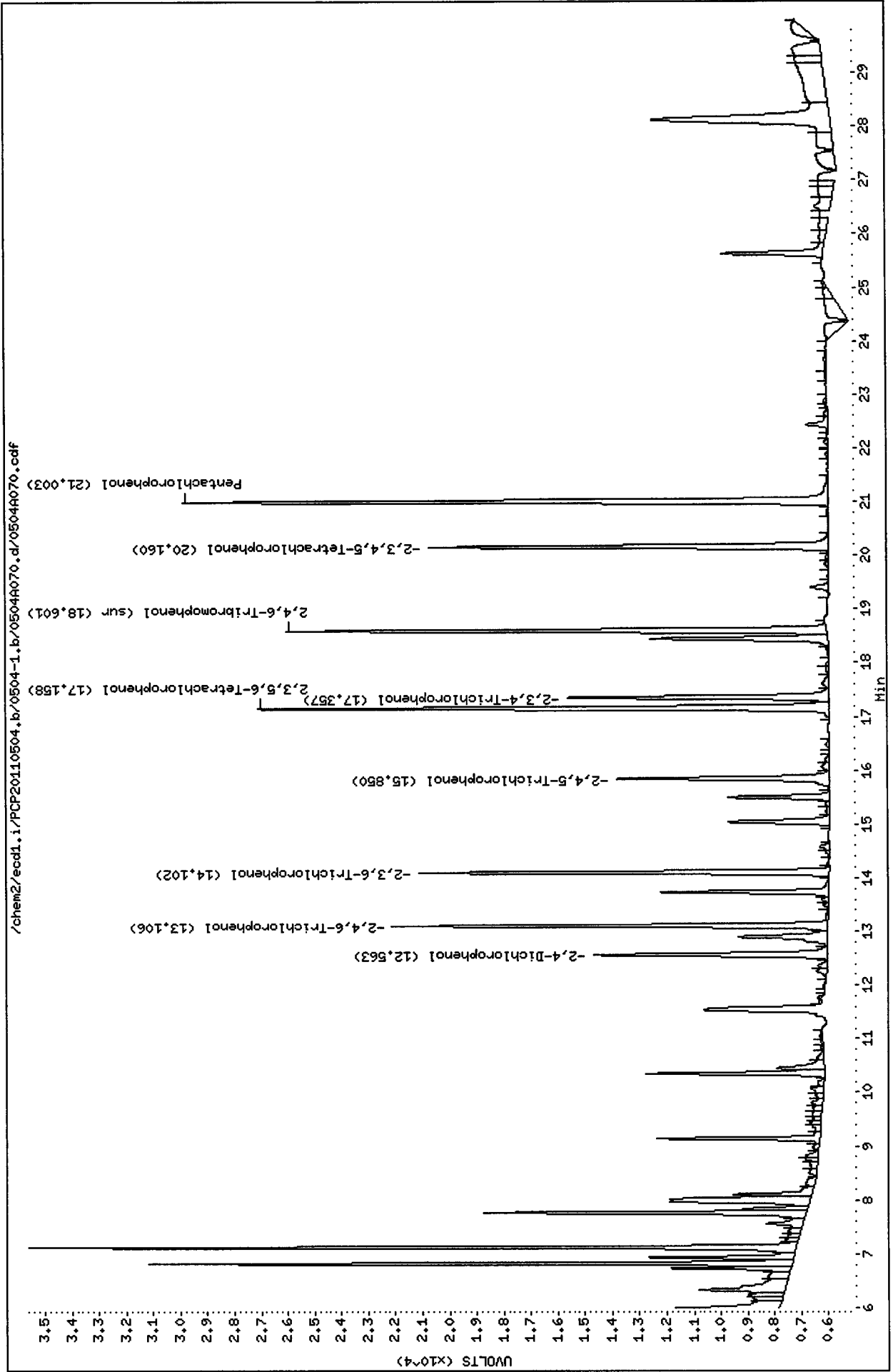
Data File: /chem2/ecdl.i/PCP20110504.b/0504-2.b/0504A070.d
Date : 06-MAY-2011 02:49
Client ID:
Sample Info: PCP CCAL
Purge Volume: 500.0
Column phase: STX CLP2

Instrument: ecdl.i
Operator: ar
Column diameter: 0.53



Data File: /chem2/ecdl1.i/PCP20110504.b/0504-1.b/0504A070.d
Date : 06-MAY-2011 02:49
Client ID:
Sample Info: PCP CCAL
Purge Volume: 500.0
Column phase: STX CLP1

Instrument: ecdl1.i
Operator: ar
Column diameter: 0.53



**TPHD Raw Data
Extraction Bench Sheets and Notes**

ARI Job ID: SS71



Preparation Test TPHD # 3

ARI Job No(s) 5571

In-House (5ppm)

Batch set up by: JH

Bottle #	Extraction Requirements	Verify Client ID	Volume Extracted (wet wt)	Transfer to Turbo Tube	TurboVap 123	Acid/Silica Clean (1:1) Y/N	TurboVap 128	Final Effective Volume	Volume to Lab	Comments
	5571 MBS	Date 04/22/11	10.00g		↓	↓	↓	1mL	1mL	
	↓ SBS	↓	↓		↓	↓	↓	↓	↓	
	↓ SBS Dup.		↓					↓	↓	
	5571 QLS	↓	↓					↓	↓	
9	A	checked	10.04							
9	B		10.05							
9	C		10.01							
9	D		10.03							
9	E		10.03							
9	F		10.02							
9	G		10.06							
9	H		10.06							
25	I		10.02							
25	Ims		10.07							
25	Imsd		10.04							
9	J		10.07							
9	K		10.03							
9	L		10.08							
9	M		10.07							
9	N		10.03							
9	O		10.00							
9	P		10.02							
9	Q		10.03							
9	R		10.02							
9	S		10.02							
Analyst/Date:		AR 04/22/11		CSZ 04/22/11		CSZ 4/23/11				

Standard	Standard ID	Volume	Expiration Date	Analyst	Witness
Surrogate	01 1821-3	100µL 450	2/04/12	AR	PD
Spike	11 1777-2	100µL 15000	11/01/11	AR	PD
QLS Spike	180	50µL	6/02/11	AR	PD
Extraction Time:	11.27	Balance ID: 24150347			

SPECIAL INSTRUCTIONS: 1. Weigh into 100mL beakers-dry with Sodium Sulfate. 2. Transfer to microwave vessel. 3. Add 20mL DCM to the vessel (if needed-Add 5mL increments until solvent is 1" above soil layer). 4. Add surr/spike. 5. Mix samples thoroughly before microwaving. 6. Microwave on appropriate power setting determined by # of samples. 7. After microwave-let cool 10-15 min. 8. Collect into turbo tube with sm. funnel containing glasswool and 1" sodium sulfate. 9. Add (2) 10mL DCM rinses to vessel and transfer to turbo tube. 10. TurboVap. 11. Acid/Silica Clean-up? = Y/N. 12. TurboVap (if Silica Clean). 13. Vial in DCM.

A. Need Total Solids Y (N) B. Archive/Freeze Y (N)

**TPHD Raw Data
Initial Calibration**

ARI Job ID: SS71



GC Analyst Notes / Corrective Action Log

ARI Project ID: Diesel AK102 curve Client ID: APF

ARI SOP: ^{o-Terphenyl} 403S(PCB) 405S(Herb) 407S(TPH-D) 409S(HCID) 412S(PCP) 423S(Pest)
427S(Dir Inj) 428S(EPH) 432S(EDB) Other

Parameter(s): Diesel #2, AK102, o-Terphenyl

Instrument: FID-3A FID-3B FID-4A FID-4B FID-5 FID-7 FID-8
FID-9 ECD-1 ECD-5 ECD-6 ECD-7

Dates: Curve: 3/21/11 Analysis Start: 3/21/11

Endrin/DDT Breakdown <15%? YES / NO / NA Method Blank In Control? YES / NO NA
ICal Meets RF & %RSD Criteria? YES / NO LCS/LCSD Recovery In Control? YES / NO ↓
CCal Meets RF & %RSD Criteria? YES / NO NA Surrogate Recovery In Control? YES / NO
Manual Integrations for ICal? YES / NO Manual Integrations for Samples? YES / NO
Internal Standard Meets Criteria? YES / NO / NA Special Analysis Criteria Met? YES / NO / NA

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes (No)

Analyst: MS Date: 3/31/11

Reviewer: VD Date: 4.1.11

UAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/fid4a.i/20110321.b

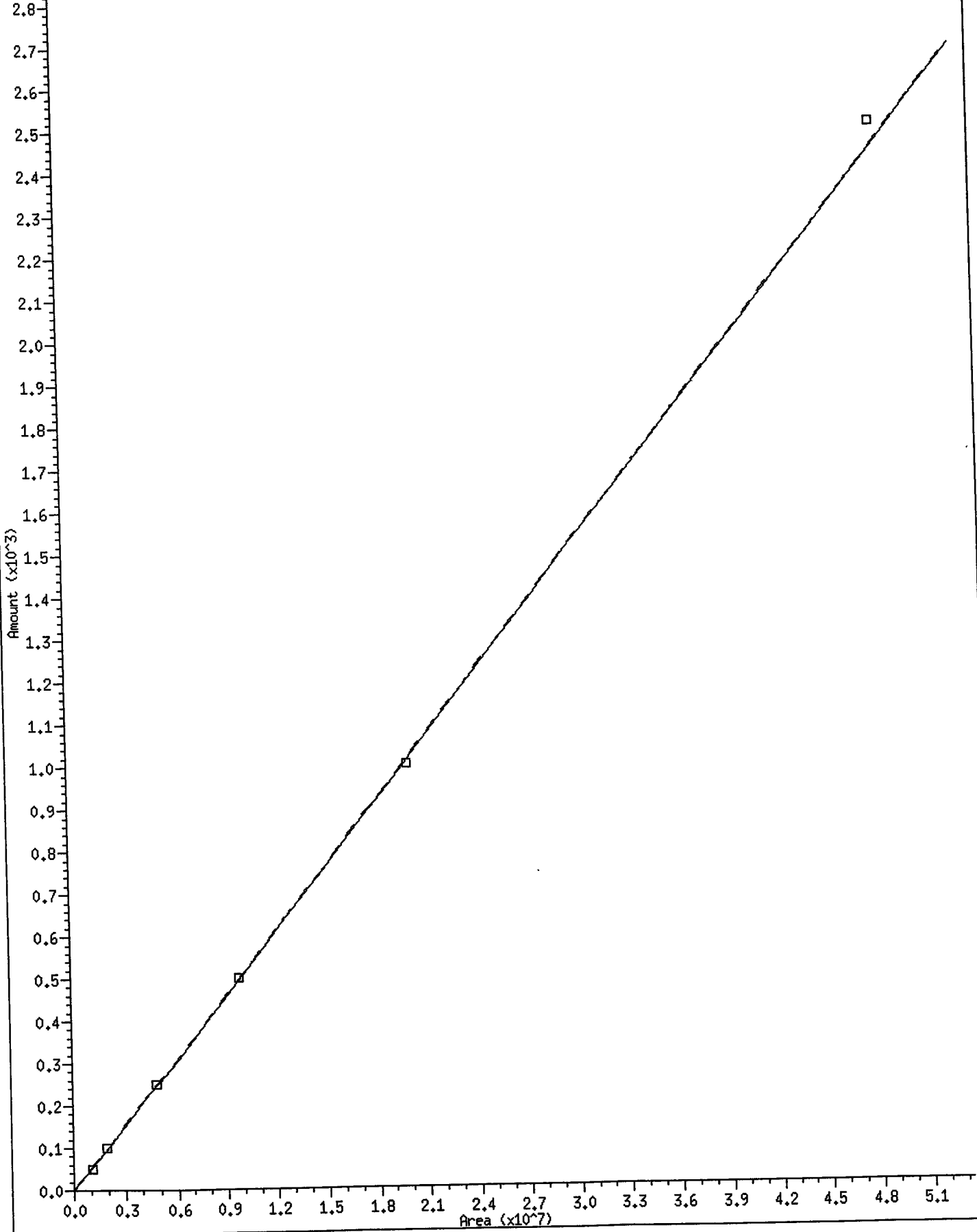
Instrument: fid4a.i Date: 21-MAR-2011

Job No.: RT Method: ftphfid4a.m

Filename	LabID	ClientID	DF	Manually Integrated Compounds
0321a002.d	RT	RT	1	NO MANUAL INTEGRATION
0321a003.d	IB	IB	1	NO MANUAL INTEGRATION
0321a004.d	DIESEL 50	DIESEL 50	1	o-terph,
0321a005.d	DIESEL 100	DIESEL 100	1	o-terph,
0321a006.d	DIESEL 250	DIESEL 250	1	o-terph,
0321a007.d	DIESEL 500	DIESEL 500	1	o-terph,
0321a008.d	DIESEL 1000	DIESEL 1000	1	o-terph,
0321a009.d	DIESEL 2500	DIESEL 2500	1	o-terph,
0321a010.d	DIESEL ICV	DIESEL ICV	1	o-terph,
0321a011.d	MOIL 100	MOIL 100	1	Triacon Surr,
0321a012.d	MOIL 250	MOIL 250	1	Triacon Surr,
0321a013.d	MOIL 500	MOIL 500	1	Triacon Surr,
0321a014.d	MOIL 1000	MOIL 1000	1	Triacon Surr,
0321a015.d	MOIL 2500	MOIL 2500	1	Triacon Surr,
0321a016.d	MOIL 5000	MOIL 5000	1	Triacon Surr,
0321a017.d	MOIL ICV	MOIL ICV	1	Triacon Surr,

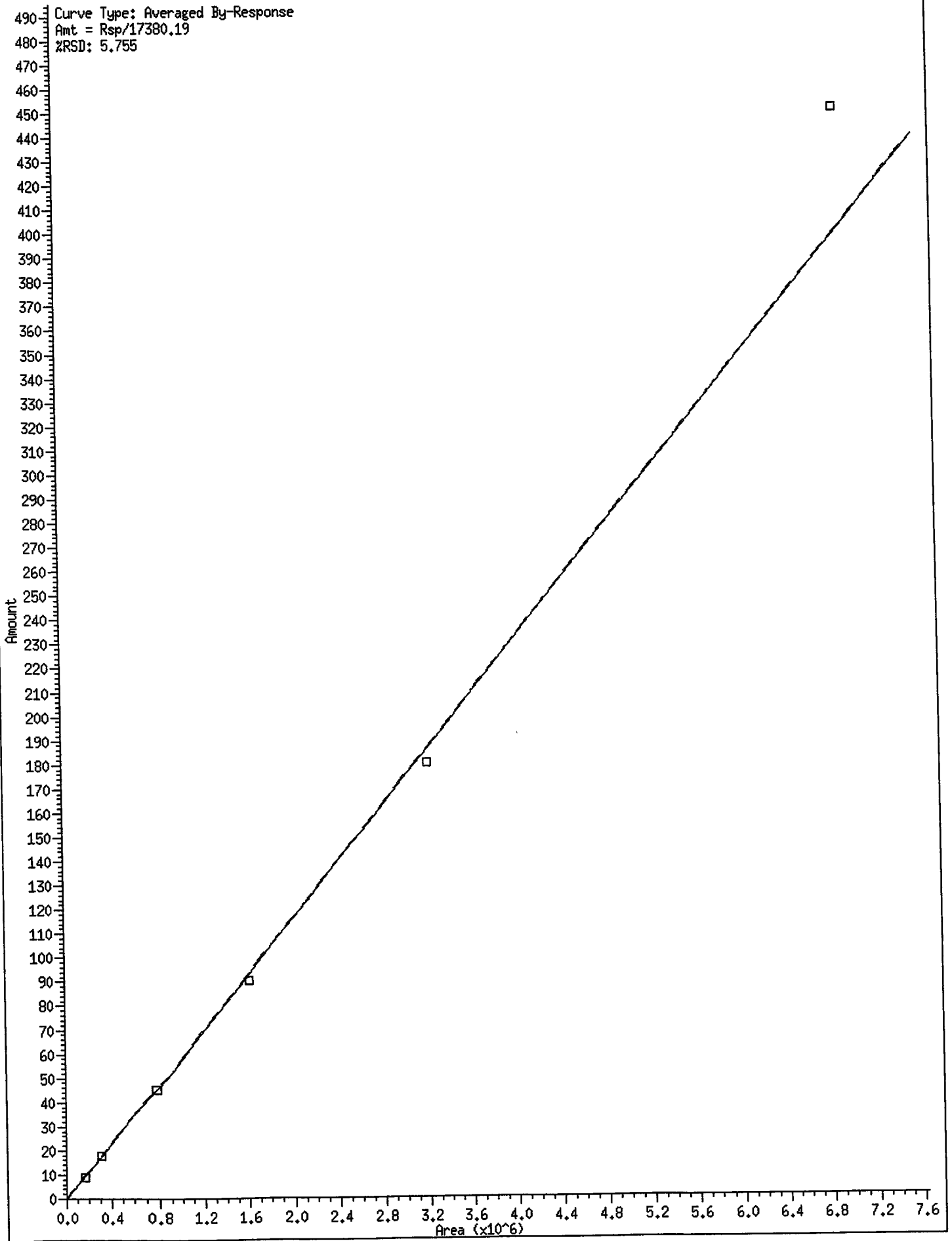
31 NW Diesel

Curve Type: Averaged By-Response
Amt = Rsp/19843.94
%RSD: 3.098



8 o-terph

Curve Type: Averaged By-Response
Amt = Rsp/17380.19
%RSD: 5.755



SS71.01242

Report Date : 01-Apr-2011 15:36

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/fid4a.i/20110321.b/ftphfid4a.m
Batch File: /chem3/fid4a.i/20110321.b
List ID: fid4a.i

ID: RT01 RT02 RT03 RT04 RT05 RT06
ENAME: 0321a004 0321a005 0321a006 0321a007 0321a008 0321a009
F. DATE: 21-MAR-2011 21-MAR-2011 21-MAR-2011 21-MAR-2011 21-MAR-2011 21-MAR-2011
F. TIME: 15:42 16:06 16:30 16:54 17:17 17:41

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Toluene	1.548	1.548	1.524	1.533	1.546	1.517	1.536	1.436-1.636	1.536	0.014
40 Mineral Oil	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
39 Creosote	+++++	+++++	+++++	+++++	+++++	+++++	0.546	0.496-0.596	+++++	+++++
36 JetA	+++++	+++++	+++++	+++++	+++++	+++++	0.787	0.737-0.837	+++++	+++++
37 Bunker C	+++++	+++++	+++++	+++++	+++++	+++++	0.718	0.668-0.768	+++++	+++++
38 Hydraulic Oil	1.173	1.189	1.194	1.172	1.170	1.166	1.167	1.117-1.217	1.177	0.011
2 C8	1.908	1.905	1.909	1.915	1.919	1.887	1.898	1.798-1.998	1.907	0.011
3 C10	3.527	3.525	3.527	3.526	3.528	3.515	3.524	3.474-3.574	3.525	0.005
4 C12	4.518	4.517	4.518	4.518	4.519	4.524	4.517	4.467-4.567	4.519	0.003
5 C14	5.290	5.289	5.291	5.292	5.295	5.284	5.292	5.242-5.342	5.290	0.004
6 C16	5.966	5.966	5.968	5.970	5.974	5.961	5.968	5.918-6.018	5.967	0.004
7 C18	6.601	6.602	6.606	6.608	6.614	6.597	6.606	6.556-6.656	6.605	0.006
8 o-terph	6.758	6.761	6.769	6.778	6.790	6.815	6.767	6.717-6.817	6.779	0.021
9 C20	7.208	7.209	7.210	7.212	7.215	7.225	7.213	7.163-7.263	7.213	0.006
10 C22	7.784	7.783	7.783	7.784	7.786	7.792	7.786	7.736-7.836	7.786	0.004
11 C24	8.324	8.323	8.321	8.320	8.321	8.323	8.324	8.274-8.374	8.322	0.001
12 C25	8.585	8.581	8.578	8.575	8.575	8.576	8.581	8.531-8.631	8.578	0.004

Reviewer 1 Mo
Reviewer 2 AN

Date: 4/1/11
Date: 4.1.11

0321a009 : 17:55

Report Date : 01-Apr-2011 15:36

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/fid4a.i/20110321.b/ftphfid4a.m
 Path File: /chem3/fid4a.i/20110321.b
 List ID: fid4a.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
13 C26	8.838	8.836	8.831	8.829	8.827	8.826	8.831	8.781-8.881	8.831	0.005
14 C28	9.346	9.357	9.353	9.352	9.348	9.343	9.347	9.297-9.397	9.350	0.005
15 Triacon SURR	9.894	9.896	9.895	9.895	9.895	9.891	9.887	9.837-9.937	9.894	0.002
16 C32	10.394	10.395	10.397	10.397	10.396	10.395	10.406	10.356-10.456	10.396	0.001
17 C34	10.917	10.943	10.942	10.938	10.945	10.938	10.933	10.883-10.983	10.937	0.010
18 Filter Peak	12.899	12.904	12.900	12.898	12.910	12.912	12.905	12.805-13.005	12.904	0.006
19 C36	11.459	11.461	11.462	11.461	11.462	11.459	11.450	11.400-11.500	11.461	0.001
20 C38	11.943	11.946	11.954	11.948	11.932	11.959	11.946	11.896-11.996	11.947	0.009
21 C40	12.419	12.423	12.424	12.422	12.422	12.420	12.426	12.376-12.476	12.422	0.002
31 NW Diesel1	+++++	+++++	+++++	+++++	+++++	+++++	0.687	0.637-0.737	+++++	+++++
32 OR Diesel1	+++++	+++++	+++++	+++++	+++++	+++++	0.660	0.610-0.710	+++++	+++++
33 AK Dies 102	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
30 NW MOLL	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
34 CRUDE	+++++	+++++	+++++	+++++	+++++	+++++	0.612	0.562-0.662	+++++	+++++
35 AK MOLL 103	+++++	+++++	+++++	+++++	+++++	+++++			+++++	+++++

5571 01244

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20110321.b/0321a002.d
Method: /chem3/fid4a.i/20110321.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MS
Report Date: 04/01/2011
Macro: 21-MAR-2011
Calibration Dates: Gas:17-DEC-2010 Diesel:21-MAR-2011 M.Oil:21-MAR-2011

ARI ID: RT
Client ID: RT
Injection: 21-MAR-2011 14:55
Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.536	0.000	347561	225139	GAS (Tol-C12)	753250	38.06
C8	1.898	0.000	130261	113758	DIESEL (C12-C24)	1252682	63.13
C10	3.524	0.000	333401	188669	M.OIL (C24-C38)	1632103	143.23
C12	4.517	0.000	296398	188861	AK-102 (C10-C25)	1656243	74.86
C14	5.292	0.000	289088	186547	AK-103 (C25-C36)	1449626	210.03
C16	5.968	0.000	276840	181503	CRUDE (Tol-C40)	3768551	498.96
C18	6.606	0.000	263027	182255	MIN.OIL (C24-C38)	1632103	121.74
C20	7.213	0.000	257207	176600			
C22	7.786	0.000	266969	186777			
C24	8.324	0.000	286483	199020			
C25	8.581	0.000	387505	279670			
C26	8.831	0.000	279277	208726			
C28	9.347	0.000	259393	215407			
C32	10.406	0.000	200459	212786	CREOSOT (C12-C22)	1028455	366.95
C34	10.933	0.000	174720	178286			
Filter Peak	12.905	0.000	1105	1269			
C36	11.450	0.000	155558	172930			
C38	11.946	0.000	119393	133846			
C40	12.426	0.000	91586	109084			
o-terph	6.767	0.000	780297	602418	JET-A (C10-C18)	971097	75.81
Triacon Surr	9.887	0.000	594261	650331			

M Indicates manual integration within range.
Range Times: NW Diesel(4.517 - 8.324) AK102(3.52 - 8.58) Jet A(3.52 - 6.61)
NW M.Oil(8.32 - 11.95) AK103(8.58 - 11.45) OR Diesel(3.52 - 9.35)

Surrogate	Area	Amount	%Rec
o-Terphenyl	602418	34.7	77.0
Triacotane	650331	38.3	85.1

Analyte	RF	Curve Date
o-Terph Surr	17380.2	21-MAR-2011
Triacon Surr	16986.4	21-MAR-2011
Gas	19792.1	17-DEC-2010
Diesel	19844.0	21-MAR-2011
Motor Oil	11395.0	21-MAR-2011
AK102	22125.0	21-MAR-2011
AK103	6902.1	10-DEC-2009
JetA	12809.9	11-FEB-2011
Min Oil	13405.9	18-JAN-2011
CRUDE	7552.8	22-MAY-2010
Bunker C	7401.6	22-DEC-2010
Creosote	2802.7	21-JAN-2010

Handwritten signature